RE: 210372
Lot 104 MN

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

Site Information:

Customer: Project Name: 210372
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 8.4
Wind Code: ASCE716LowRise Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 30 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I45504482	A1	4/6/2021	21	I45504502	E3	4/6/2021
2	I45504483	A2A	4/6/2021	22	I45504503	J1	4/6/2021
3	I45504484	B1A	4/6/2021	23	I45504504	J2	4/6/2021
4	I45504485	B2A	4/6/2021	24	I45504505	J3	4/6/2021
5	I45504486	B3	4/6/2021	25	I45504506	V1	4/6/2021
6	I45504487	B4	4/6/2021	26	I45504507	V3	4/6/2021
7	I45504488	B5	4/6/2021	27	I45504508	V4	4/6/2021
8	I45504489	B6	4/6/2021	28	I45504509	V5	4/6/2021
9	I45504490	B7	4/6/2021	29	I45504510	V6	4/6/2021
10	I45504491	B8	4/6/2021	30	I45504511	V7	4/6/2021
11	I45504492	B9	4/6/2021				
12	I45504493	B10	4/6/2021				
13	I45504494	B11	4/6/2021				
14	I45504495	C1	4/6/2021				
15	I45504496	C2	4/6/2021				
16	I45504497	C3	4/6/2021				
17	I45504498	D1	4/6/2021				
18	I45504499	D2	4/6/2021				
19	I45504500	E1	4/6/2021				
20	I45504501	E2	4/6/2021				

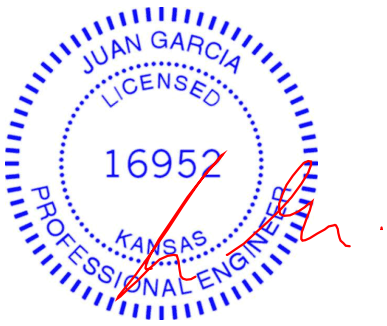
The truss drawing(s) referenced above have been prepared by MiTek USA, Inc under my direct supervision based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Kansas is April 30, 2022.

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.



April 06, 2021
Garcia, Juan

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

04/28/2021

RE: 210372
Lot 104 MN

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

Site Information:

Customer: Project Name: 210372
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 8.4
Wind Code: ASCE716LowRise
Wind Speed: 115 mph
Roof Load: 45.0 psf
Floor Load: N/A psf

This package includes 30 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I45504482	A1	4/6/2021	21	I45504502	E3	4/6/2021
2	I45504483	A2A	4/6/2021	22	I45504503	J1	4/6/2021
3	I45504484	B1A	4/6/2021	23	I45504504	J2	4/6/2021
4	I45504485	B2A	4/6/2021	24	I45504505	J3	4/6/2021
5	I45504486	B3	4/6/2021	25	I45504506	V1	4/6/2021
6	I45504487	B4	4/6/2021	26	I45504507	V3	4/6/2021
7	I45504488	B5	4/6/2021	27	I45504508	V4	4/6/2021
8	I45504489	B6	4/6/2021	28	I45504509	V5	4/6/2021
9	I45504490	B7	4/6/2021	29	I45504510	V6	4/6/2021
10	I45504491	B8	4/6/2021	30	I45504511	V7	4/6/2021
11	I45504492	B9	4/6/2021				
12	I45504493	B10	4/6/2021				
13	I45504494	B11	4/6/2021				
14	I45504495	C1	4/6/2021				
15	I45504496	C2	4/6/2021				
16	I45504497	C3	4/6/2021				
17	I45504498	D1	4/6/2021				
18	I45504499	D2	4/6/2021				
19	I45504500	E1	4/6/2021				
20	I45504501	E2	4/6/2021				

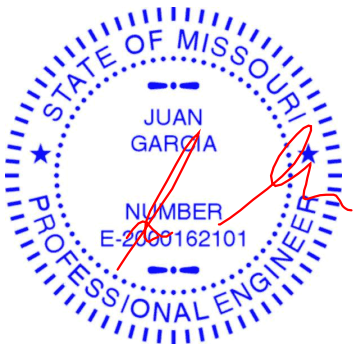
The truss drawing(s) referenced above have been prepared by MiTek USA, Inc under my direct supervision based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Missouri is December 31, 2022.

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.



April 06, 2021
Garcia, Juan

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

04/28/2021

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	A1	Common Supported Gable	1	1	I45504482

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:19:55 2021 Page 1

ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-X?f?y8C2JdbpHlVnWb5LAVOEeu4_BoR1PBZC8YzTmf2

-0-10-8 0-10-8 | 23-0-0 23-0-0 | 46-0-0 23-0-0 | 46-10-8 0-10-8

Scale = 1:77.4

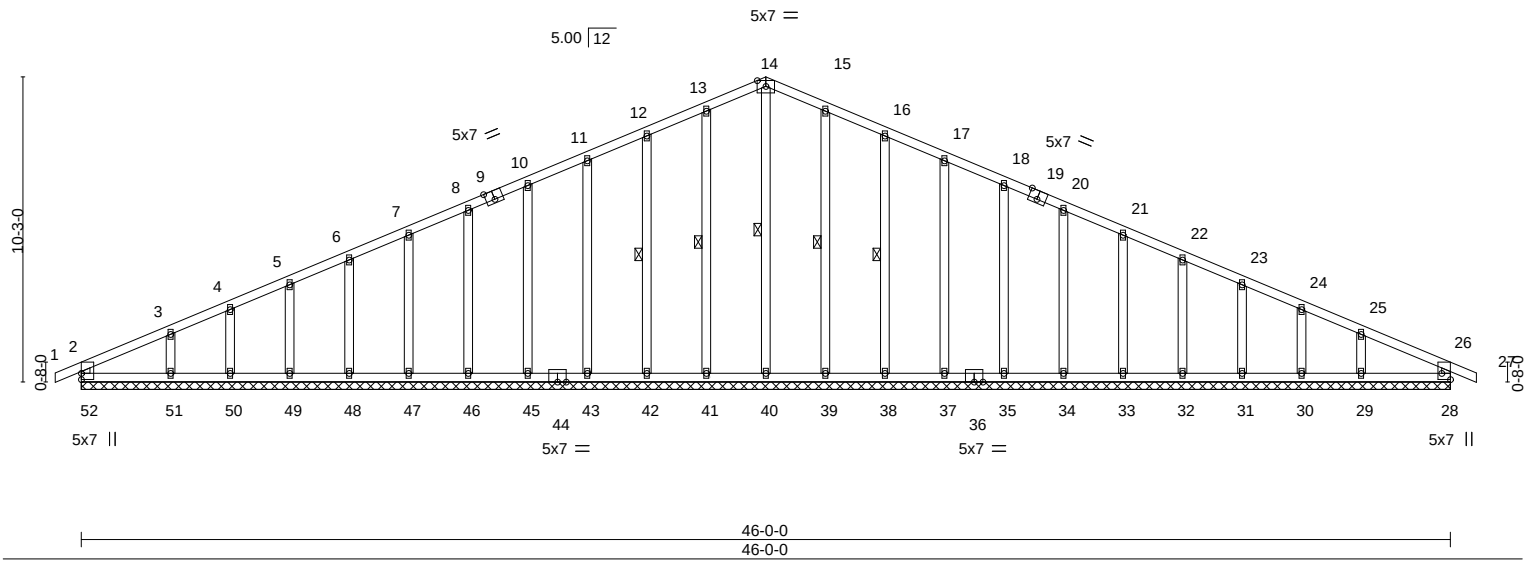


Plate Offsets (X,Y)-- [9:0-3-8,Edge], [19:0-3-8,Edge], [28:Edge,0-3-8]

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	0.07	Vert(LL)	-0.00	26	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	26	n/r	90		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	28	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 240 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	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.
WEBS	1 Row at midpt 14-40, 13-41, 12-42, 15-39, 16-38

REACTIONS. All bearings 46-0-0.
(lb) - Max Horz 52=-145(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 52, 28, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29
Max Grav All reactions 250 lb or less at joint(s) 52, 28, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 13-14=-49/251

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=6.0psf; 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=1.33 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 52, 28, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29.
10) 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

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

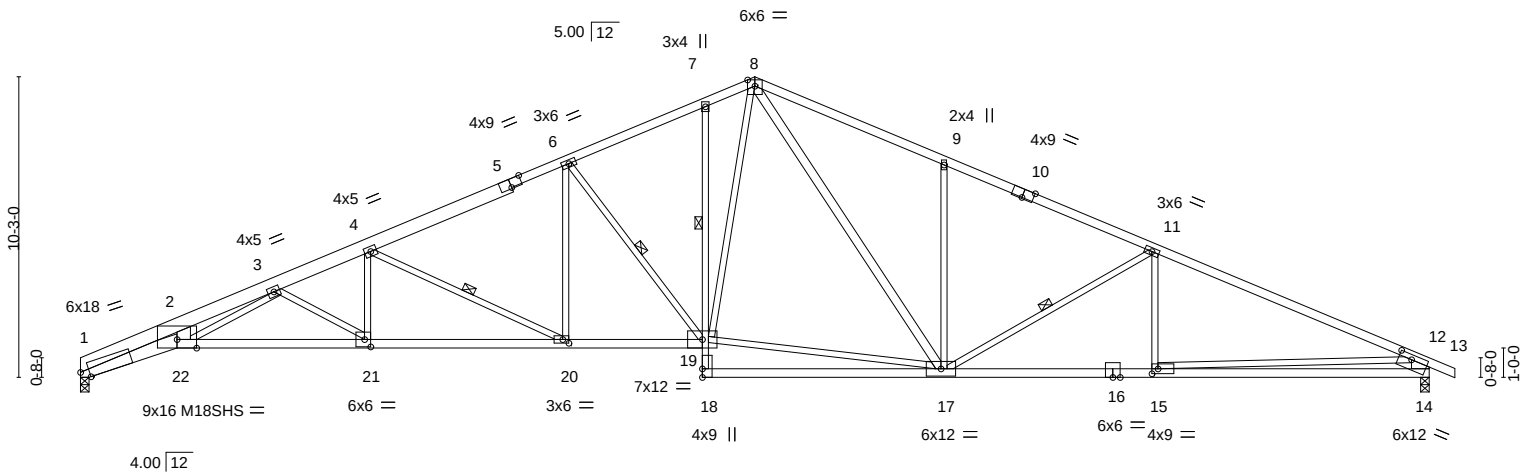
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	A2A	Roof Special	3	1	I45504483
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:19:57 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-UNnmNqDJrFrWW3fAe08pFwTOTiXBfYGKtV2JCRzTmf0

3-3-8	6-8-10	9-9-8	16-6-10	21-2-8	23-0-0	29-5-7	36-7-12	46-0-0	46-10-8
3-3-8	3-5-2	3-0-14	6-9-2	4-7-15	1-9-8	6-5-7	7-2-5	9-4-4	0-10-8

Scale = 1:78.6



3-3-8	9-9-8	16-6-10	21-2-8	23-0-0	29-5-7	36-7-12	46-0-0
3-3-8	6-6-0	6-9-2	4-7-15	1-9-8	6-5-7	7-2-5	9-4-4

Plate Offsets (X,Y)-- [1:0-3-9,Edge], [5:0-4-8,Edge], [10:0-4-8,Edge], [14:0-5-4,0-2-0], [15:0-2-8,0-2-0], [20:0-2-8,0-1-8], [21:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.49	20	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.90	20-21	>608	240	M18SHS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.46	14	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 216 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x6 SP DSS, 10-13: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
1-22: 2x6 SPF 1650F 1.4E, 19-22: 2x4 SPF 2100F 1.8E
7-18: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-22: 2x6 SPF No.2, 8-17: 2x4 SPF No.2, 12-14: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
1 Row at midpt 7-19
WEBS 1 Row at midpt 4-20, 6-19, 11-17

REACTIONS. (size) 1=0-3-8, 14=0-3-8
Max Horz 1=150(LC 12)
Max Uplift 1=-181(LC 8), 14=-203(LC 9)
Max Grav 1=2049(LC 1), 14=2133(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-8805/874, 2-3=-7465/826, 3-4=-5145/470, 4-6=-3847/335, 6-7=-3122/291, 7-8=-3034/334, 8-9=-3337/409, 9-11=-3345/298, 11-12=-4011/338, 12-14=-2038/256
BOT CHORD 1-22=-919/8009, 21-22=-627/5762, 20-21=-450/4688, 19-20=-230/3472, 15-17=-214/3579, 14-15=-274/1443
WEBS 2-22=-93/1815, 3-21=-1254/207, 4-21=-21/787, 4-20=-1358/245, 6-20=-34/737, 6-19=-1089/208, 8-19=-207/1418, 8-17=-260/954, 9-17=-491/213, 11-17=-721/184, 12-15=0/2139, 3-22=-252/1515, 17-19=-86/2385

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=6.0psf; 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=1.33 plate grip DOL=1.33
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) Bearing at joint(s) 1 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) except (jt=lb) 1=181, 14=203.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
ARKANSAS
PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

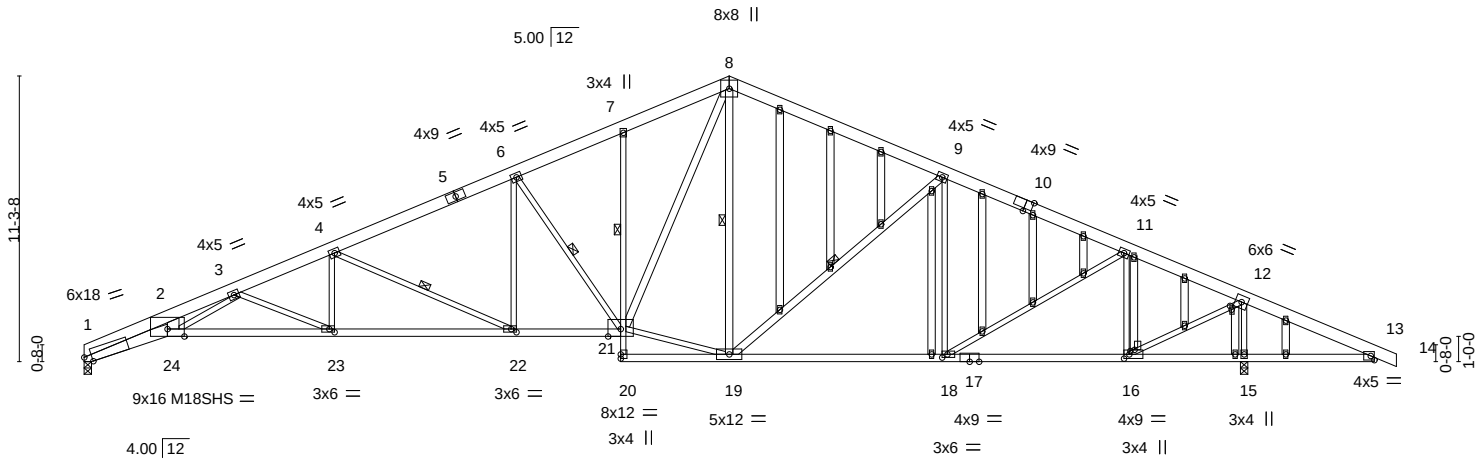
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	B1A	GABLE	1	1	I45504484
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:04 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-mjiPrDJiBOjXs8hWY_mS1OGbtXyRoijMU5EAxXzTmev

3-3-8	6-0-11	9-9-8	16-11-12	21-2-8	25-6-0	34-0-3	41-2-8	45-10-4	51-0-0	51-10-8
3-3-8	2-9-3	3-8-13	7-2-5	4-2-12	4-3-8	8-6-4	7-2-4	4-7-12	5-1-12	0-10-8

Scale = 1:91.1



3-3-8	9-9-8	16-11-12	21-2-8	25-6-0	34-0-3	41-2-8	45-8-8	45-10-4	51-0-0
3-3-8	6-6-0	7-2-5	4-2-12	4-3-8	8-6-4	7-2-4	4-6-0	0-1-12	5-1-12

Plate Offsets (X,Y)-- [1:0-3-9,Edge], [10:0-3-9,Edge], [16:0-0-9,0-2-0], [16:0-2-8,0-2-0], [18:0-2-8,0-1-8], [22:0-2-8,0-1-8], [23:0-2-8,0-1-8], [43:0-1-13,0-0-12]

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	0.81	Vert(LL)	-0.44	23-24	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.82	23-24	>669	240	M18SHS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.42	15	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 322 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except*
	1-5,10-14: 2x6 SP DSS
BOT CHORD	2x4 SPF 2100F 1.8E *Except*
	1-24: 2x6 SPF 1650F 1.4E, 7-20: 2x3 SPF No.2, 17-20: 2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except*
	2-24: 2x6 SPF No.2, 8-21,8-19,9-19: 2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-1-4 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
	1 Row at midpt 7-21
WEBS	1 Row at midpt 4-22, 6-21, 8-19, 9-19

REACTIONS. (size) 1=0-3-8, 15=0-3-8 (req. 0-4-2)
Max Horz 1=-176(LC 9)
Max Uplift 1=-197(LC 8), 15=-245(LC 9)
Max Grav 1=2023(LC 1), 15=2615(LC 1)

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

TOP CHORD	1-2=-8741/984, 2-3=-7343/899, 3-4=-5072/521, 4-6=-3780/380, 6-7=-3088/344, 7-8=-3027/404, 8-9=-2379/289, 9-11=-2651/231, 11-12=-1908/158, 12-13=-165/631
BOT CHORD	1-24=-1040/7956, 23-24=-753/5930, 22-23=-522/4641, 21-22=-292/3406, 18-19=-51/2374, 16-18=-29/1689, 15-16=-483/171, 13-15=-483/171
WEBS	2-24=-140/1905, 4-23=-8/695, 4-22=-1363/254, 6-22=-31/706, 6-21=-1120/217, 19-21=-48/2061, 8-21=-292/1772, 9-19=-512/195, 11-18=-26/800, 11-16=-1029/141, 12-16=-154/2438, 12-15=-2486/299, 3-23=-1402/251, 3-24=-227/1254

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=6.0psf; 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=1.33 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
9) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=197, 15=245.
11) 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

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

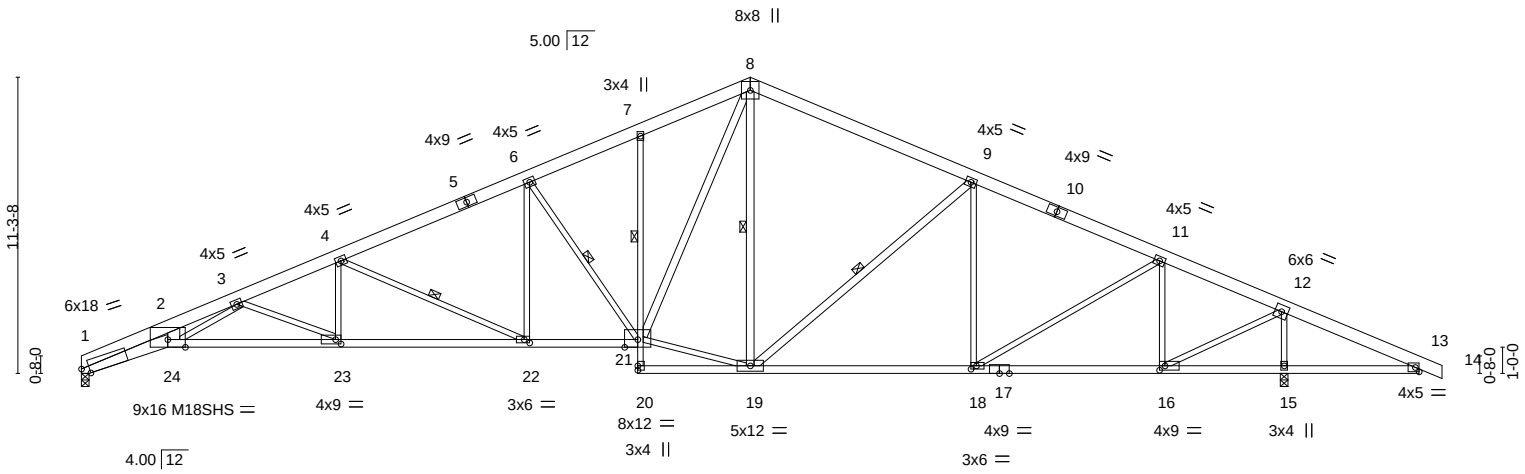
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN	I45504485
210372	B2A	Roof Special	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:05 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-FwFn3ZJKyirOUIGi6hHhacpmdwIgX8zWil_kTzzTmeu

3-3-8	6-0-12	9-9-8	16-11-12	21-2-8	25-6-0	34-0-3	41-2-7	45-10-4	51-0-0	51-10-8
3-3-8	2-9-4	3-8-12	7-2-4	4-2-12	4-3-8	8-6-3	7-2-4	4-7-13	5-1-12	0-10-8

Scale = 1:87.8



3-3-8	9-9-8	16-11-12	21-2-8	25-6-0	34-0-3	41-2-7	45-10-4	51-0-0
3-3-8	6-6-0	7-2-4	4-2-12	4-3-8	8-6-3	7-2-4	4-7-13	5-1-12

Plate Offsets (X,Y)-- [1:0-3-9,Edge], [16:0-2-8,0-2-0], [18:0-2-8,0-1-8], [22:0-2-8,0-1-8], [23:0-2-8,0-2-0]

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	0.81	Vert(LL)	-0.44	23-24	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.82	23-24	>669	240	M18SHS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.42	15	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 273 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-5,10-14: 2x6 SP DSS
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
1-24: 2x6 SPF 1650F 1.4E, 7-20: 2x3 SPF No.2, 17-20: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-24: 2x6 SPF No.2, 8-21,8-19,9-19: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-1-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 7-21
WEBS 1 Row at midpt 4-22, 6-21, 8-19, 9-19

REACTIONS. (size) 1=0-3-8, 15=0-3-8 (req. 0-4-2)
Max Horz 1=-176(LC 9)
Max Uplift 1=-197(LC 8), 15=-245(LC 9)
Max Grav 1=2023(LC 1), 15=2615(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-8741/984, 2-3=-7344/899, 3-4=-5072/521, 4-6=-3780/380, 6-7=-3088/344, 7-8=-3027/404, 8-9=-2379/289, 9-11=-2652/231, 11-12=-1909/158, 12-13=-165/631
BOT CHORD 1-24=-1040/7956, 23-24=-753/5930, 22-23=-522/4641, 21-22=-292/3406, 18-19=-51/2374, 16-18=-29/1690, 15-16=-483/171, 13-15=-483/171
WEBS 2-24=-140/1905, 3-23=-1402/251, 4-23=-8/695, 4-22=-1363/254, 6-22=-31/706, 6-21=-1120/217, 19-21=-48/2061, 8-21=-292/1772, 9-19=-512/195, 11-18=-26/799, 11-16=-1028/141, 12-16=-154/2438, 12-15=-2486/298, 3-24=-227/1253

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=6.0psf; 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=1.33 plate grip DOL=1.33
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) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
6) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=197, 15=245.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

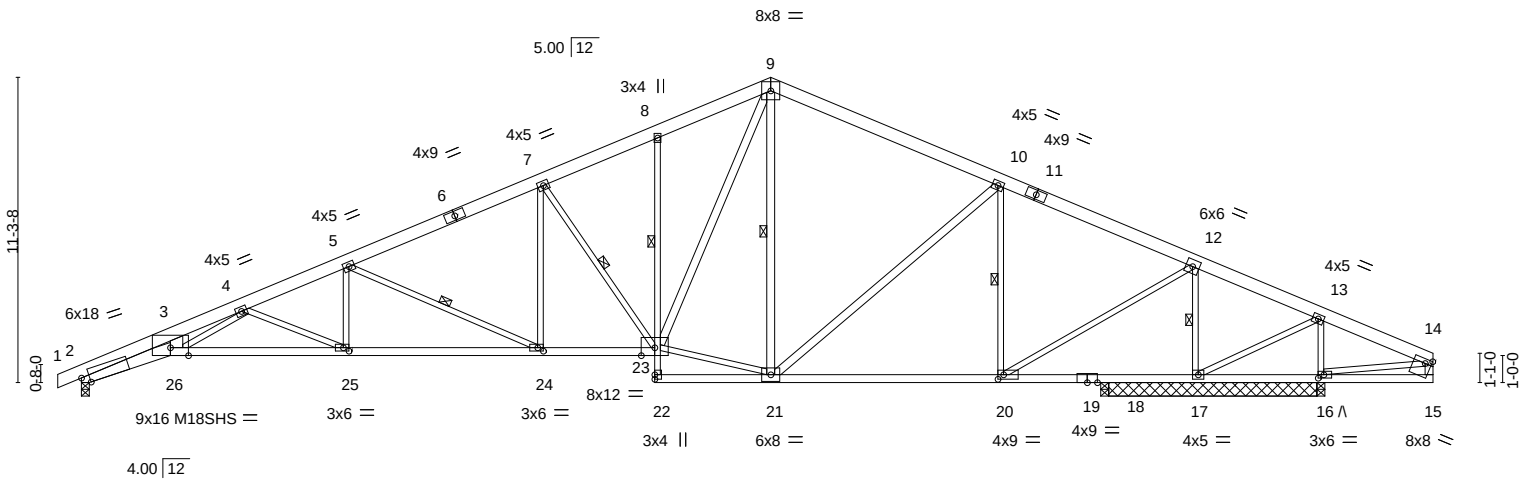
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	B3	ROOF SPECIAL	1	1	I45504486
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:06 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-j6p9GvKyj0zF5SrvgPow7pLwBKfMGdPfxPjH0PzTmet

-0-10-8	3-3-8	6-0-11	9-9-8	16-11-12	21-2-8	25-6-0	34-0-1	41-2-8	45-10-4	50-0-0
0-10-8	3-3-8	2-9-3	3-8-13	7-2-4	4-2-12	4-3-8	8-6-1	7-2-7	4-7-12	4-1-12

Scale = 1:85.2



3-3-8	9-9-8	16-11-12	21-2-8	25-6-0	34-0-1	38-0-0	41-2-8	45-8-7	46-0-0 45-10-4	50-0-0
3-3-8	6-6-0	7-2-4	4-2-12	4-3-8	8-6-1	3-11-15	3-2-8	4-5-15	0-1-13 0-1-12	4-0-0

Plate Offsets (X,Y)-- [2:0-3-9,Edge], [15:0-2-12,0-2-0], [16:0-2-8,0-1-8], [20:0-2-8,0-2-0], [24:0-2-8,0-1-8], [25:0-2-8,0-1-8]

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	0.89	Vert(LL)	-0.42	25-26	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.77	25-26	>587	240	M18SHS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.35	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 256 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except* 1-6,11-14: 2x6 SPF 1650F 1.4E
BOT CHORD	2x4 SPF No.2 *Except* 2-26: 2x6 SPF 1650F 1.4E, 23-26: 2x4 SPF 2100F 1.8E 8-22: 2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 3-26: 2x6 SPF No.2, 9-23,9-21,10-21,14-15: 2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-0-13 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 1 Row at midpt 8-23
WEBS	1 Row at midpt 5-24, 7-23, 9-21, 10-20, 12-17

REACTIONS. All bearings 0-3-8 except (jt=length) 17=7-8-6.
(lb) - Max Horz 2=178(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) except 2=-191(LC 8), 17=-280(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 18, 16 except 2=1826(LC 1), 17=2569(LC 1)

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

TOP CHORD	2-3=-7563/871, 3-4=-6391/810, 4-5=-4235/438, 5-7=-3005/304, 7-8=-2331/270, 8-9=-2270/329, 9-10=-1700/222, 10-12=-1300/139, 12-13=-178/852, 13-14=-65/315
BOT CHORD	2-26=-941/6884, 25-26=-668/5030, 24-25=-449/3865, 23-24=-227/2690, 20-21=0/1118, 18-20=-718/220, 17-18=-718/220
WEBS	3-26=-108/1572, 5-25=-4/651, 5-24=-1296/245, 7-24=-27/674, 7-23=-1093/217, 21-23=0/1444, 9-23=-275/1584, 9-21=-461/143, 10-21=-85/472, 10-20=-1026/188, 12-20=-178/2145, 12-17=-2299/257, 13-17=-551/228, 14-16=-261/80, 4-26=-228/1232, 4-25=-1267/239

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=6.0psf; 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=1.33 plate grip DOL=1.33
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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 2 and 280 lb uplift at joint 17.
7) "Λ" indicates Released bearing: allow for upward movement at joint(s) 16.
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.

STATE OF MISSOURI JUAN GARCIA NUMBER E-2000162101 PROFESSIONAL ENGINEER

JUAN GARCIA LICENSED 16952 KANSAS PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

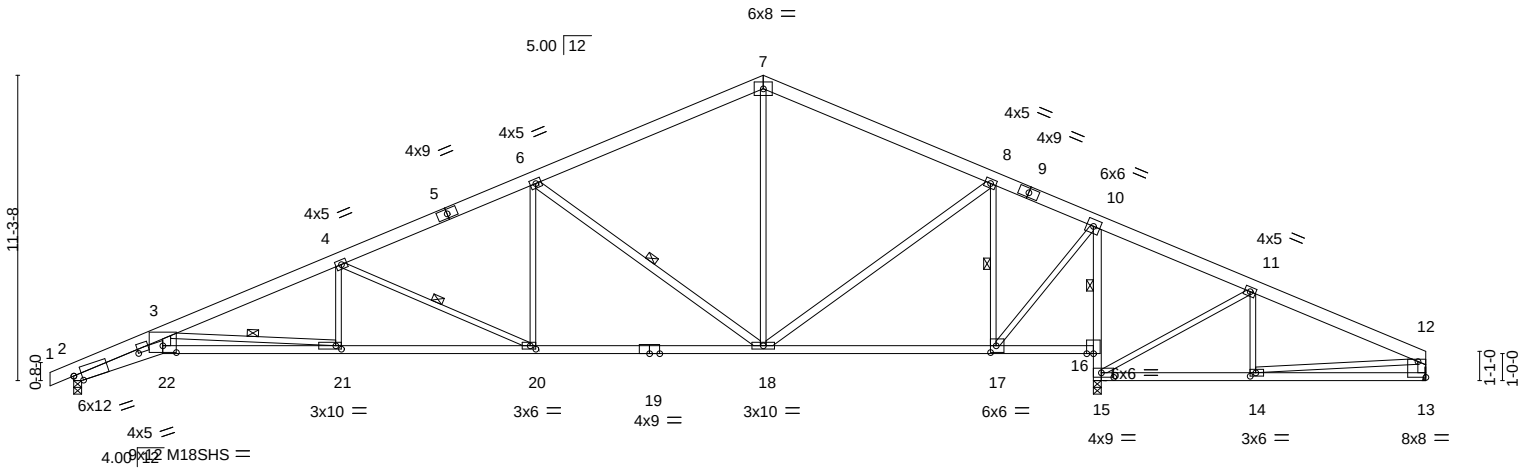
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	B4	Roof Special	4	1	I45504487
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:07 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-BINYUFLaUJ66jbP5D6J9f1u8yk_x?3boA3TqYszTmes

-0-10-8	3-3-8	9-9-8	16-11-13	25-6-0	34-0-1	37-8-8	43-7-5	50-0-0
0-10-8	3-3-8	6-6-0	7-2-5	8-6-3	8-6-1	3-8-7	5-10-13	6-4-12

Scale = 1:85.2



3-3-8	9-9-8	16-11-13	25-6-0	34-0-1	37-8-8	37-10-4	43-7-5	50-0-0
3-3-8	6-6-0	7-2-5	8-6-3	8-6-1	3-8-7	0-1-12	5-9-1	6-4-12

Plate Offsets (X,Y)-- [2:0-3-9,Edge], [2:2-6-8,0-0-7], [13:Edge,0-7-0], [14:0-2-8,0-1-8], [15:0-5-8,0-2-0], [17:0-2-8,0-3-0], [20:0-2-8,0-1-8], [21:0-2-8,0-1-8], [22:0-6-0,0-3-0]

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	0.69	Vert(LL)	-0.44	21-22	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.82	21-22	>554	240	M18SHS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.26	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 238 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except* 1-5,9-12: 2x6 SPF 1650F 1.4E
BOT CHORD	2x4 SPF No.2 *Except* 2-22: 2x6 SPF 1650F 1.4E, 19-22: 2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 3-22,6-18,8-18,12-13: 2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-4-13 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-7-0 oc bracing. Except: 1 Row at midpt 10-16
WEBS	1 Row at midpt 3-21, 4-20, 6-18, 8-17

REACTIONS. (size) 2=0-3-8, 13=Mechanical, 15=0-3-8 (req. 0-4-1)
Max Horz 2=106(LC 10)
Max Uplift 2=-6(LC 8), 13=-41(LC 9)
Max Grav 2=1684(LC 1), 13=393(LC 20), 15=2588(LC 1)

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

TOP CHORD	2-3=-6934/94, 3-4=-3850/25, 4-6=-2626/40, 6-7=-1469/56, 7-8=-1467/70, 8-10=-612/87, 10-11=0/650, 11-12=-403/218, 12-13=-339/73
BOT CHORD	2-22=-169/6318, 21-22=-161/5593, 20-21=-39/3554, 18-20=0/2330, 17-18=0/527, 16-17=-594/30, 15-16=-2211/0, 10-16=-2140/0, 14-15=-177/303
WEBS	3-22=0/1999, 3-21=-2051/122, 4-21=0/441, 4-20=-1351/68, 6-20=0/714, 6-18=-1359/95, 7-18=0/531, 8-18=0/900, 8-17=-1303/27, 10-17=0/1781, 11-15=-703/42, 11-14=0/300

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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
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) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 2, 15 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 6 lb uplift at joint 2 and 41 lb uplift at joint 13.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

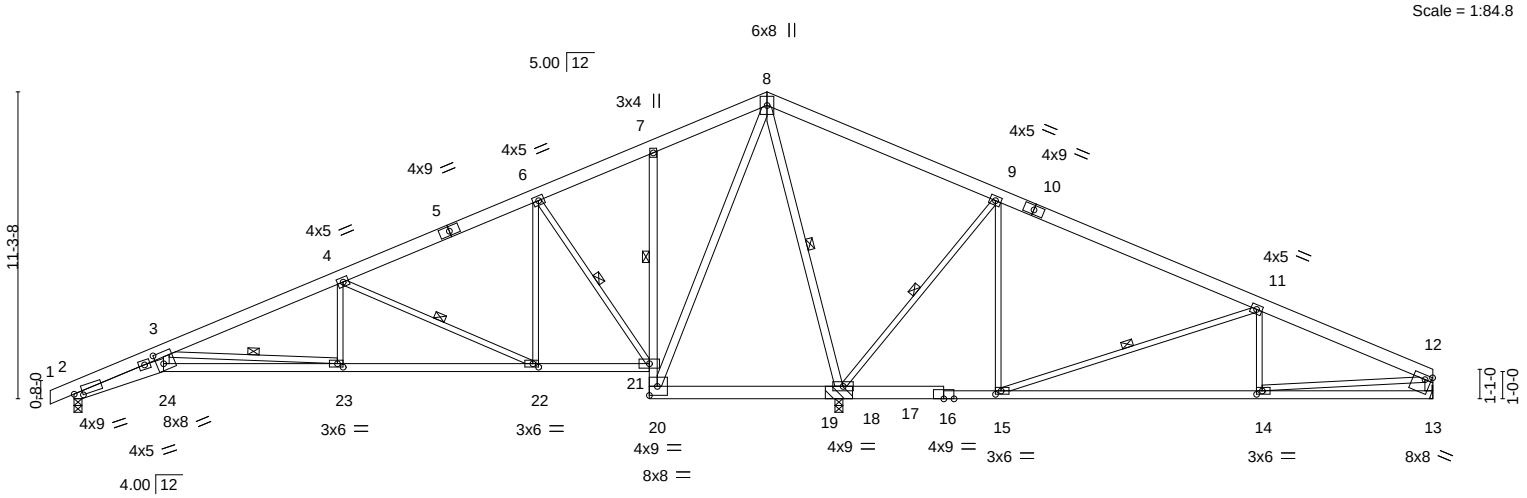
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	B5	ROOF SPECIAL	2	1	I45504488
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:08 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-fVxwhbMCFdEyLI_HnpqOCEQI_8KekT8yOjCO4IzTmer

-0-10-8	3-3-8	9-9-8	16-11-13	21-2-0	25-6-0	34-0-1	43-7-6	50-0-0
0-10-8	3-3-8	6-6-0	7-2-5	4-2-3	4-4-0	8-6-2	9-7-5	6-4-10

Scale = 1:84.8



3-3-8	9-9-8	16-11-13	21-2-0	28-1-12	31-6-14	43-7-6	50-0-0
3-3-8	6-6-0	7-2-5	4-2-3	6-11-12	3-5-2	12-0-8	6-4-10

Plate Offsets (X,Y)-- [2:0-3-13,0-1-9], [13:0-2-12,0-2-0], [14:0-2-8,0-1-8], [15:0-2-8,0-1-8], [22:0-2-8,0-1-8], [23:0-2-8,0-1-8], [24:0-3-0,0-5-0]

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	0.74	Vert(LL)	-0.21	23-24	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.39	23-24	>854	240		
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.11	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 263 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	2-24: 2x6 SPF No.2, 16-20: 2x6 SP DSS
WEBS	2x3 SPF No.2 *Except*
	8-20,12-13: 2x4 SPF No.2, 8-18: 2x4 SPF 2100F 1.8E

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-9-5 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 5-0-0 oc bracing. Except:
	1 Row at midpt 7-21
WEBS	1 Row at midpt 3-23, 4-22, 6-21, 8-18, 9-18, 11-15

REACTIONS. (size) 2=0-3-8, 18=(0-3-8 + bearing block) (req. 0-5-7), 13=Mechanical
Max Horz 2=106(LC 10)
Max Uplift 2=-9(LC 8), 13=-196(LC 19)
Max Grav 2=843(LC 19), 18=3449(LC 1), 13=616(LC 20)

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

TOP CHORD	2-3=-2946/103, 3-4=-1235/36, 6-7=0/635, 7-8=0/635, 8-9=0/1756, 9-11=-49/1193, 11-12=-905/592, 12-13=-568/236
BOT CHORD	2-24=-177/2655, 23-24=-166/2383, 22-23=-51/1121, 20-21=-1106/101, 7-21=-285/68, 18-20=-946/74, 15-18=-1066/109, 14-15=-516/775
WEBS	3-24=0/889, 3-23=-1269/115, 4-23=0/394, 4-22=-1160/78, 6-22=0/578, 6-21=-923/59, 8-20=-63/1198, 8-18=-2420/33, 9-18=-1150/89, 9-15=0/551, 11-15=-1050/40, 11-14=0/351, 12-14=-502/616

NOTES-

1) 2x6 SP DSS bearing block 12" long at jt. 18 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. Bearing is assumed to be SPF No.2.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 2 and 196 lb uplift at joint 13.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

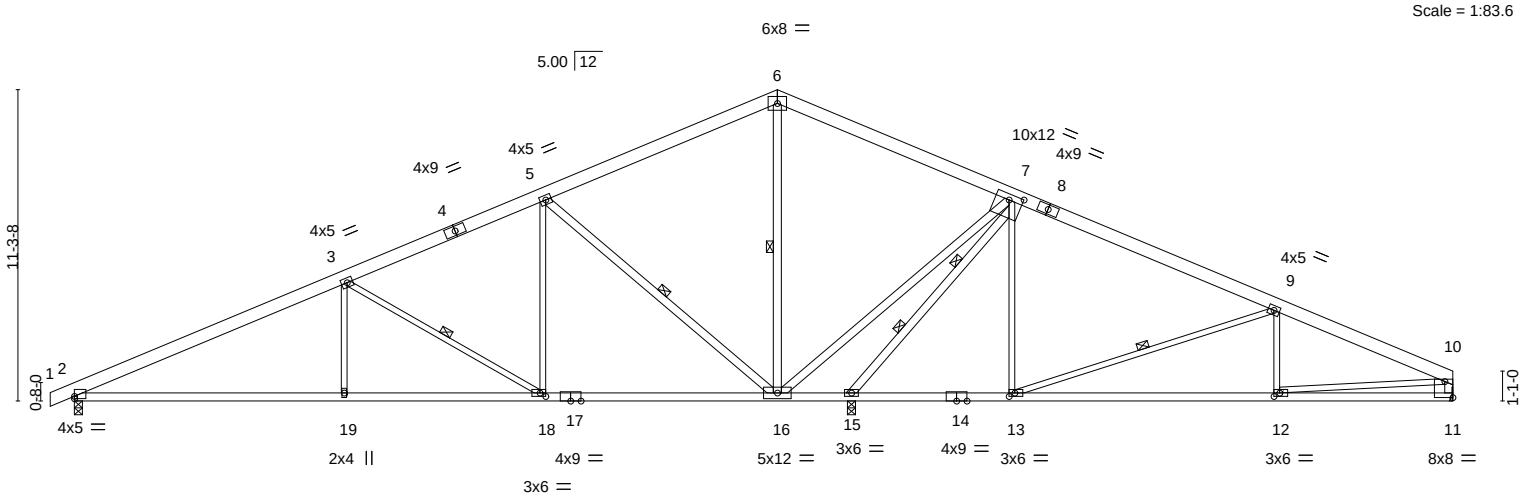
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	B6	COMMON	1	1	I45504489
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:09 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-7hVIuwMq0xMpyvZTLXMdkSzTYYgPTxe5dNyxckzTmeq

-0-10-8	9-9-7	16-11-15	25-6-0	34-0-1	43-7-6	50-0-0
0-10-8	9-9-7	7-2-7	8-6-1	8-6-2	9-7-5	6-4-10

Scale = 1:83.6



9-9-7	17-1-3	25-6-0	28-2-4	34-0-1	43-7-6	50-0-0
9-9-7	7-3-11	8-4-13	2-8-4	5-9-13	9-7-5	6-4-10

Plate Offsets (X,Y)-- [2:0-0-0,0-1-0], [7:0-6-0,0-2-8], [11:Edge,0-7-0], [12:0-2-8,0-1-8], [13:0-2-8,0-1-8], [18:0-2-8,0-1-8]

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	0.75	Vert(LL)	-0.24	2-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.54	2-19	>625	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 240 lb	FT = 10%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
5-16,6-16,7-16,7-15,10-11: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-2-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 4-4-0 oc bracing: 15-16.
WEBS 1 Row at midpt 3-18, 5-16, 6-16, 9-13
2 Rows at 1/3 pts 7-15

REACTIONS. (size) 2=0-3-8, 11=Mechanical, 15=0-3-8 (req. 0-3-15)
Max Horz 2=106(LC 8)
Max Uplift 2=-15(LC 8), 11=-20(LC 9)
Max Grav 2=1223(LC 19), 11=871(LC 20), 15=2525(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1991/31, 3-5=-1146/68, 7-9=-595/95, 9-10=-1413/56, 10-11=-820/46
BOT CHORD 2-19=-57/1733, 18-19=-57/1733, 16-18=-1/963, 15-16=-1622/42, 13-15=0/440, 12-13=-16/1240
WEBS 3-19=0/363, 3-18=-904/66, 5-18=0/628, 5-16=-1220/89, 6-16=-535/9, 7-16=0/2139, 7-15=-3095/0, 7-13=0/532, 9-13=-870/64, 9-12=0/279, 10-12=-8/1034

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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 2 and 20 lb uplift at joint 11.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	B7	Roof Special	1	1	I45504490
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:11 2021 Page 1

ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-34d2JcO5YYcXCDjsSyO5qt2nbLOaxtmO5gR2hdzTmeo

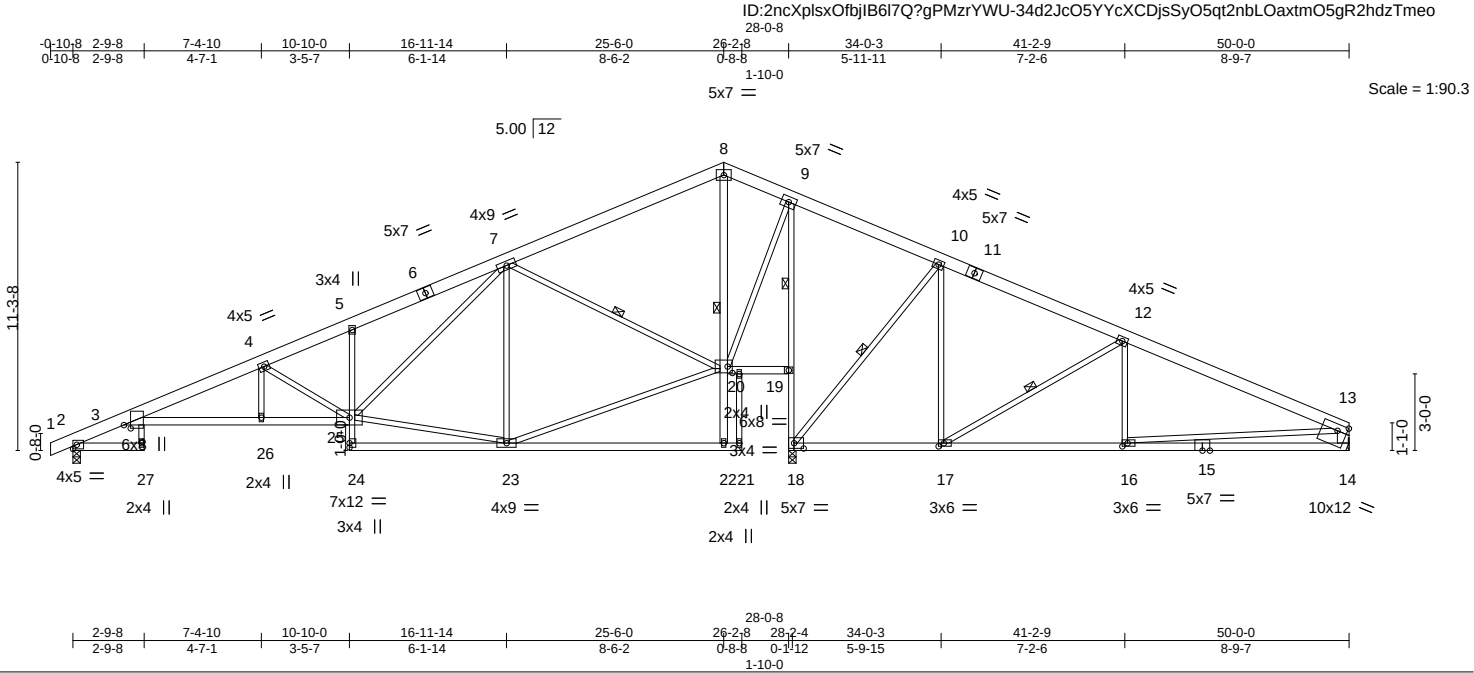


Plate Offsets (X,Y)-- [3:0-1-9,0-3-3], [14:0-4-8,0-3-0], [16:0-2-8,0-1-8], [17:0-2-8,0-1-8], [18:0-4-8,0-2-8], [20:0-2-4,0-3-0]

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	0.84	Vert(LL)	-0.32	27	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.58	27	>578	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.12	14	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 274 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-6,11-13: 2x6 SP DSS

BOT CHORD 2x4 SPF No.2 *Except*
3-25: 2x4 SPF 2100F 1.8E, 5-24,9-18: 2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except*
13-14: 2x6 SPF No.2, 8-22: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-3-2 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-27,19-20
3-0-5 oc bracing: 18-19.
1 Row at midpt 9-19

WEBS 1 Row at midpt 7-20, 10-18, 12-17, 8-22

REACTIONS. (size) 2=0-3-8, 14=Mechanical, 18=0-3-8 (req. 0-3-10)
Max Horz 2=106(LC 8)
Max Uplift 2=-24(LC 8), 14=-60(LC 9)
Max Grav 2=1320(LC 1), 14=951(LC 20), 18=2308(LC 1)

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

TOP CHORD 2-3=-609/61, 3-4=-3240/118, 4-5=-2361/118, 5-7=-2266/166, 7-8=-450/174, 8-9=-378/178, 10-12=-711/193, 12-13=-1437/150, 13-14=-868/108

BOT CHORD 3-26=-155/3074, 25-26=-154/3074, 18-19=-1542/0, 9-19=-1474/0, 17-18=-36/559, 16-17=-82/1224, 14-16=-27/459

WEBS 4-25=-1203/71, 23-25=-39/1083, 7-25=-82/1297, 7-23=-401/131, 7-20=-975/73, 9-20=0/1025, 10-18=-937/59, 10-17=0/552, 12-17=-780/54, 12-16=0/292, 13-16=-55/768, 20-23=-43/1229

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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) WARNING: Required bearing size at joint(s) 18 greater than input bearing size.
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 2 and 60 lb uplift at joint 14.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

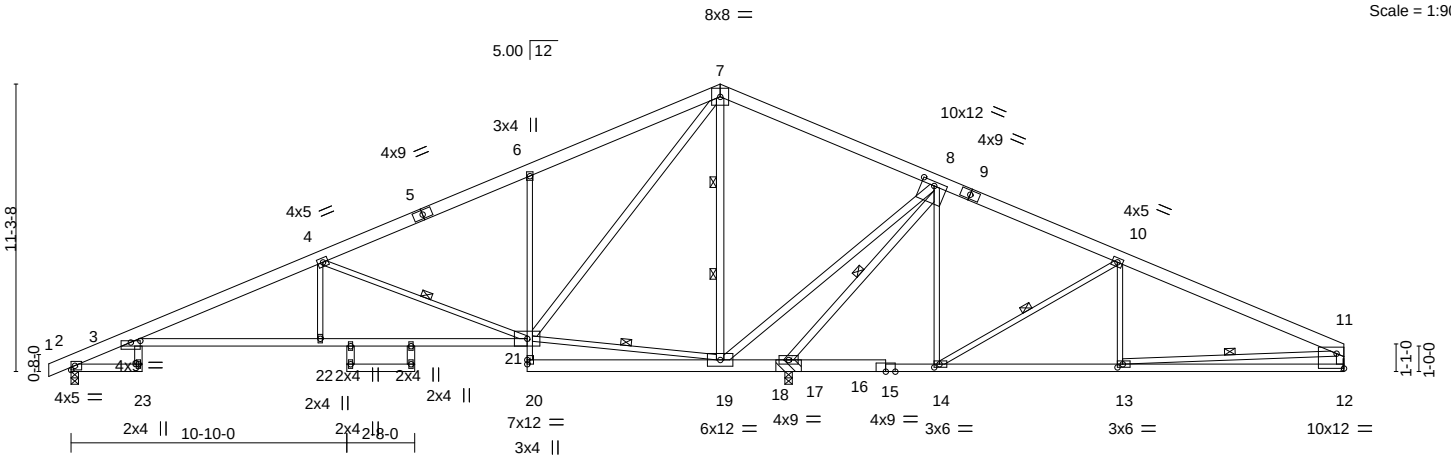
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	B8	ROOF SPECIAL	3	1	I45504491
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:12 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-XGBRXyPjJskOqNI20fvKM4b_2lkCgHVYJKAbD3zTmen

-0-10-8	2-9-8	9-9-7	17-11-0	25-6-0	34-0-1	41-2-7	50-0-0
0-10-8	2-9-8	6-11-15	8-1-9	7-7-0	8-6-2	7-2-6	8-9-9

Scale = 1:90.5



2-9-8	9-9-7	17-11-0	25-6-0	28-2-4	34-0-1	41-2-7	50-0-0
2-9-8	6-11-15	8-1-9	7-7-0	2-8-4	5-9-13	7-2-6	8-9-9

Plate Offsets (X,Y)-- [3:0-4-8,0-0-12], [8:0-6-0,0-2-0], [12:Edge,0-7-0], [13:0-2-8,0-1-8], [14:0-2-8,0-1-8]

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	0.73	Vert(LL)	-0.35	23	>955	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.67	3-22	>502	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.29	17	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 274 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except* 1-5,9-11: 2x6 SPF 1650F 1.4E
BOT CHORD	2x4 SPF No.2 *Except* 6-20: 2x3 SPF No.2, 15-20: 2x6 SP DSS
WEBS	2x4 SPF No.2 *Except* 4-22,4-21,19-21,8-14,10-14,10-13,11-13: 2x3 SPF No.2 8-17: 2x4 SPF 2100F 1.8E

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-8-11 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 4-4-9 oc bracing.
WEBS	1 Row at midpt 4-21, 19-21, 8-17, 10-14, 11-13 2 Rows at 1/3 pts 7-19

REACTIONS. (size) 2=0-3-8, 12=Mechanical, 17=(0-3-8 + bearing block) (req. 0-5-8)
Max Horz 2=106(LC 8)
Max Uplift 12=-240(LC 19)
Max Grav 2=802(LC 19), 12=637(LC 20), 17=3497(LC 1)

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

TOP CHORD	2-3=-350/72, 3-4=-1154/0, 4-6=-28/338, 6-7=0/345, 7-8=0/1232, 8-10=-77/1307, 10-11=-769/855, 11-12=-558/313
BOT CHORD	3-22=-8/1061, 21-22=-8/1060, 6-21=-537/146, 17-19=-3305/148, 14-17=-1180/149, 13-14=-753/609, 12-13=-27/366
WEBS	4-22=0/381, 4-21=-1337/73, 19-21=-1011/129, 7-21=-96/1373, 7-19=-2126/93, 8-19=-41/2976, 8-17=-3810/0, 8-14=0/500, 10-14=-914/37, 10-13=0/387, 11-13=-810/244

NOTES-

1) 2x6 SP DSS bearing block 12" long at jt. 17 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. Bearing is assumed to be SPF No.2.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
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 240 lb uplift at joint 12.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	B9	ROOF SPECIAL	1	1	I45504492

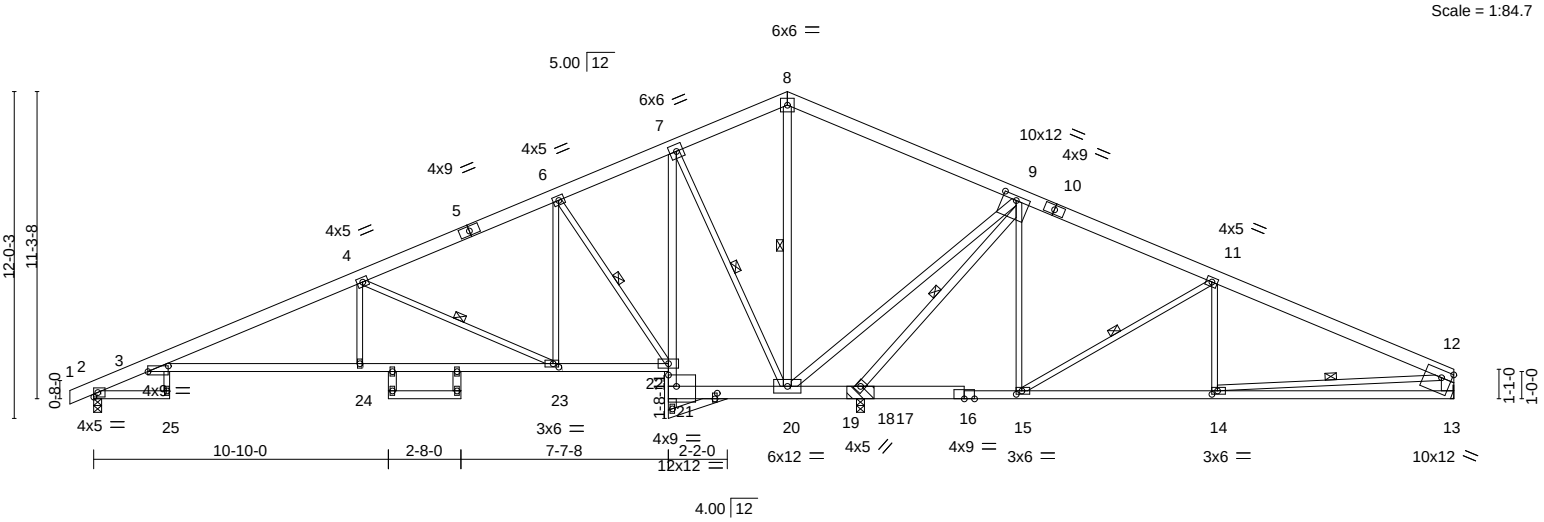
Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:13 2021 Page 1

ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-0SkpkIPL39sFRWtFaNQZvI88393hPkYhY_w9lWzTmem

-0-10-8	2-9-8	9-9-6	16-11-14	21-1-8	25-6-0	34-0-3	41-2-7	50-0-0
0-10-8	2-9-8	6-11-14	7-2-8	4-1-10	4-4-8	8-6-3	7-2-5	8-9-9

Scale = 1:84.7



2-9-8	9-9-6	16-11-14	21-1-8	25-6-0	28-2-4	34-0-3	41-2-7	50-0-0
2-9-8	6-11-14	7-2-8	4-1-10	4-4-8	2-8-4	5-9-15	7-2-5	8-9-9

Plate Offsets (X,Y)-- [3:0-8-15,0-2-8], [9:0-6-0,0-2-0], [13:0-4-8,0-3-4], [14:0-2-8,0-1-8], [15:0-2-8,0-1-8], [21:0-3-8,0-5-0], [23:0-2-8,0-1-8], [31:0-2-8,0-1-0]

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	0.78	Vert(LL)	-0.37	25	>909	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.69	3-24	>485	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.26	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 275 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-5,10-12: 2x6 SPF 1650F 1.4E

BOT CHORD 2x4 SPF No.2 *Except*
16-21: 2x6 SP DSS

WEBS 2x3 SPF No.2 *Except*
8-20,9-20,26-28,27-29,21-30: 2x4 SPF No.2, 12-13: 2x6 SPF No.2
9-18: 2x4 SPF 2100F 1.8E

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 4-7-4 oc bracing.

WEBS 1 Row at midpt 4-23, 6-22, 7-20, 8-20, 11-15, 12-14, 9-18

REACTIONS. (size) 2=0-3-8, 13=Mechanical, 18=(0-3-8 + bearing block) (req. 0-5-5)
Max Horz 2=106(LC 8)
Max Uplift 13=-187(LC 19)
Max Grav 2=848(LC 19), 13=670(LC 20), 18=3379(LC 1)

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

TOP CHORD 2-3=-371/75, 3-4=-1292/12, 6-7=0/591, 7-8=0/1076, 8-9=0/1120, 9-11=-71/1172, 11-12=-837/734, 12-13=-591/261

BOT CHORD 3-24=-35/1193, 23-24=-35/1192, 7-22=0/878, 20-21=-474/67, 18-20=-3025/129, 15-18=-1055/126, 14-15=-642/671, 13-14=-39/398

WEBS 4-24=0/353, 4-23=-1288/82, 6-23=0/619, 6-22=-871/53, 7-20=-1118/64, 8-20=-1190/0, 9-20=-46/2738, 9-15=0/494, 11-15=-888/33, 11-14=0/377, 12-14=-712/274, 9-18=-3589/5

NOTES-

1) 2x6 SP DSS bearing block 12" long at jt. 18 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. Bearing is assumed to be SPF No.2.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
4) All plates are 2x4 MT20 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 187 lb uplift at joint 13.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

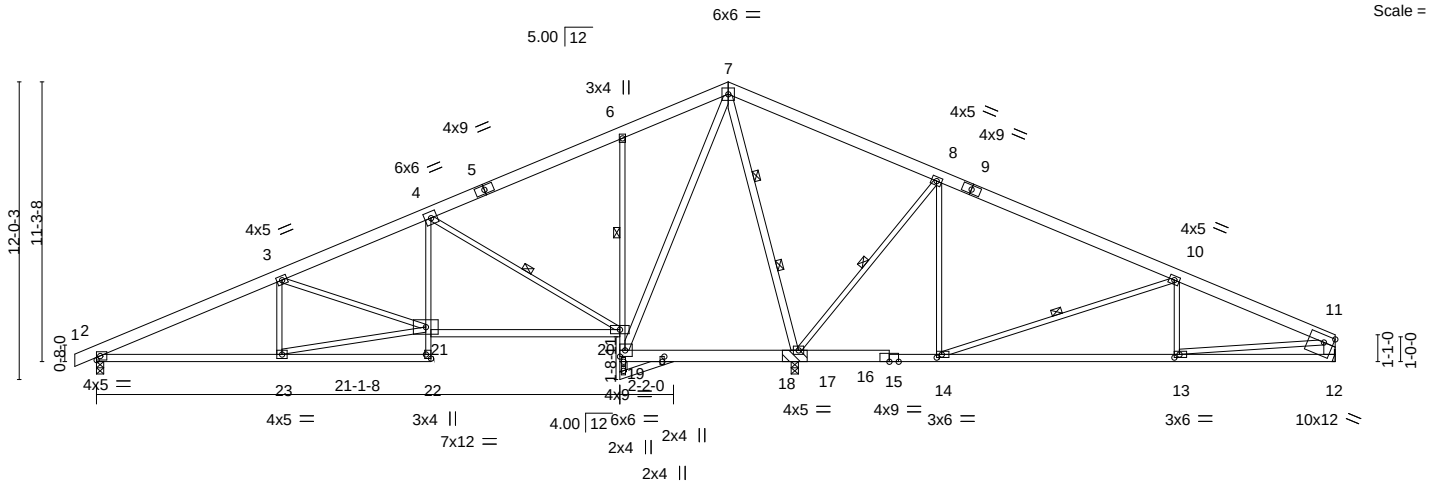
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	B10	ROOF SPECIAL	1	1	I45504493
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:19:58 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-yZK8bAExcYzN8DDMCjf2o70cb6_nOzqU59nsltzTmf?

-0-10-8	7-4-10	13-6-0	21-1-8	25-6-0	34-0-3	43-7-5	50-0-0
0-10-8	7-4-10	6-1-7	7-7-8	4-4-8	8-6-3	9-7-2	6-4-11

Scale = 1:93.0



7-4-10	13-6-0	21-1-8	28-2-4	34-0-3	43-7-5	50-0-0
7-4-10	6-1-7	7-7-8	7-0-12	5-9-15	9-7-2	6-4-11

Plate Offsets (X,Y)-- [12:Edge,0-3-8], [13:0-2-8,0-1-8], [14:0-2-8,0-1-8], [22:Edge,0-2-8], [25:0-2-8,0-1-0]

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	0.67	Vert(LL)	-0.18	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.37	13-14	>693	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.06	17	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 260 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	4-22,6-19: 2x3 SPF No.2, 15-19: 2x6 SP DSS
WEBS	2x3 SPF No.2 *Except*
	7-19,7-17,19-24: 2x4 SPF No.2, 11-12: 2x6 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 4-4-6 oc bracing. Except:
	1 Row at midpt 6-20
WEBS	1 Row at midpt 4-20, 8-17, 10-14
	2 Rows at 1/3 pts 7-17

REACTIONS. (size) 2=0-3-8, 17=(0-3-8 + bearing block) (req. 0-4-14), 12=Mechanical
Max Horz 2=178(LC 8)
Max Uplift 2=-144(LC 8), 17=-178(LC 8), 12=-194(LC 9)
Max Grav 2=984(LC 21), 17=3114(LC 1), 12=690(LC 22)

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

TOP CHORD	2-3=-1573/219, 3-4=-1105/240, 4-6=0/314, 6-7=-11/302, 7-8=0/1309, 8-10=-183/778, 10-11=-1048/355, 11-12=-643/218
BOT CHORD	2-23=-300/1363, 4-21=-12/556, 20-21=-215/958, 19-20=-1157/296, 6-20=-468/209, 17-19=-597/104, 14-17=-681/142, 13-14=-285/905
WEBS	21-23=-276/1368, 3-21=-464/90, 4-20=-1191/258, 7-19=-272/1297, 7-17=-2130/230, 8-17=-1135/254, 8-14=0/541, 10-14=-975/165, 10-13=0/328, 11-13=-230/720

NOTES-

1) 2x6 SP DSS bearing block 12" long at jt. 17 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. Bearing is assumed to be SPF No.2.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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=1.33 plate grip DOL=1.33
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) 2=144, 17=178, 12=194.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

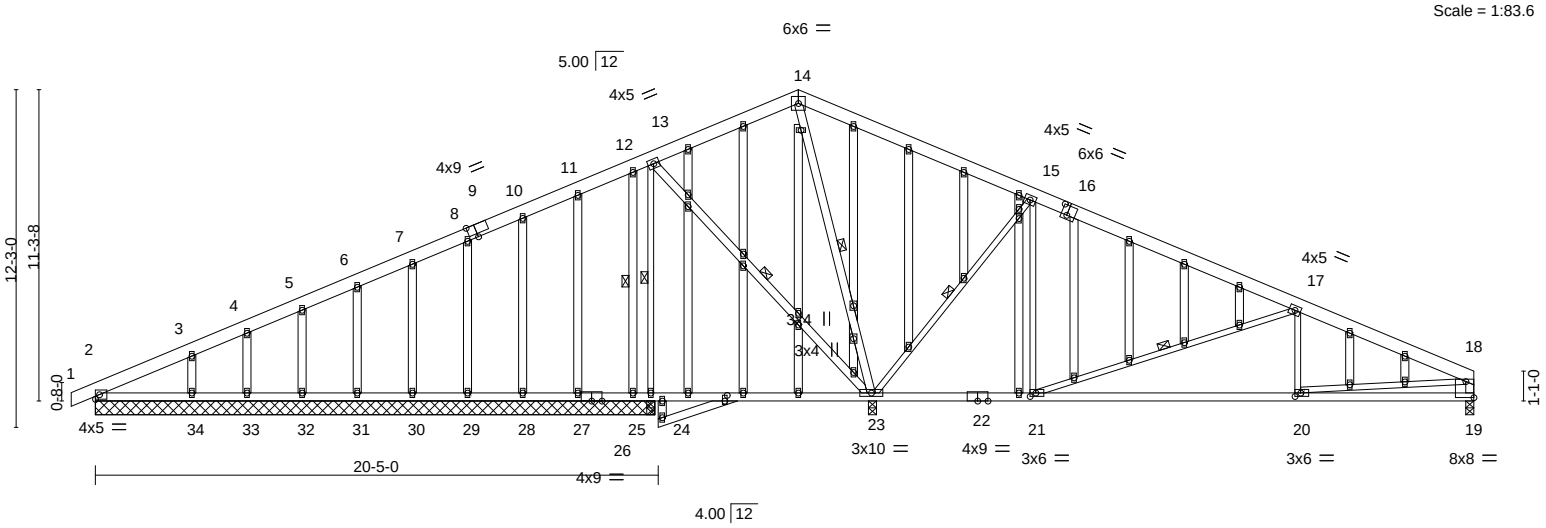
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	B11	GABLE	1	1	I45504494
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:02 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-qLafQXHRfnTpdqX7RZk_yzBJEjJWKoK30nl4tezTmex

-0-10-8	20-1-12	25-6-0	34-0-1	43-7-6	50-0-0
0-10-8	20-1-12	5-4-4	8-6-2	9-7-5	6-4-10

Scale = 1:83.6



20-1-12	20-3-8	28-1-12	28-2-4	34-0-1	43-7-6	50-0-0
20-1-12	0-1-12	7-10-4	0-0-8	5-9-13	9-7-5	6-4-10

Plate Offsets (X,Y)-- [9:0-3-9,Edge], [16:0-2-8,0-4-4], [19:Edge,0-7-0], [20:0-2-8,0-1-8], [21:0-2-8,0-1-8], [67:0-2-8,0-1-0]

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	0.56	Vert(LL)	-0.19	20-21	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.40	20-21	>652	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.01	19	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 354 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 13-23,14-23,18-19,66-68: 2x4 SPF No.2
OTHERS	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 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 21-23,20-21,19-20.
WEBS	1 Row at midpt 13-24, 13-23, 14-23, 15-23, 17-21, 12-25

REACTIONS. All bearings 20-3-8 except (jt=length) 23=0-3-8, 19=0-3-8.
(lb) - Max Horz 2=178(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 27, 28, 29, 30, 31, 32, 33, 34 except 23=-267(LC 9), 19=-101(LC 9), 25=-428(LC 3)
Max Grav All reactions 250 lb or less at joint(s) 2, 27, 28, 29, 30, 31, 32, 33 except 24=504(LC 3), 24=300(LC 1), 23=2082(LC 1), 19=736(LC 22), 34=311(LC 1)

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

TOP CHORD	13-14=0/467, 14-15=0/709, 15-17=-280/113, 17-18=-1145/171, 18-19=-687/125
BOT CHORD	20-21=-115/995
WEBS	13-23=-349/118, 14-23=-847/45, 15-23=-1122/269, 15-21=0/524, 17-21=-902/200, 17-20=0/292, 18-20=-84/814

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=6.0psf; 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=1.33 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
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) 2, 27, 28, 29, 30, 31, 32, 33, 34 except (jt=lb) 23=267, 19=101, 25=428.
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.

April 6,2021

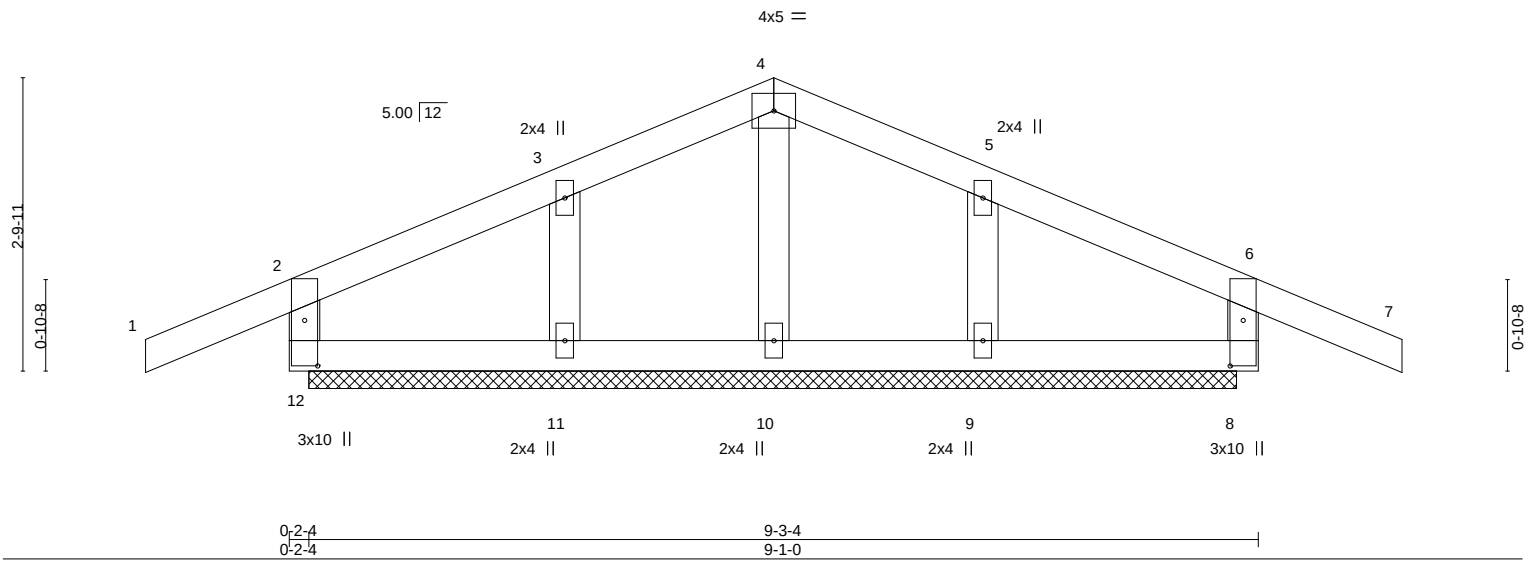
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	C1	Common Supported Gable	1	1	I45504495
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:14 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-UeIByeQzqT_63gSR84xoRVgTZZZs8QvqnefilyzTmel

-1-4-8 4-7-10 9-3-4 10-7-12
1-4-8 4-7-10 4-7-10 1-4-8

Scale = 1:22.0



0-2-4 9-3-4
0-2-4 9-1-0

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

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	0.16	Vert(LL)	-0.01	7	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.01	7	n/r	90		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 32 lb	FT = 10%

LUMBER-

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

REACTIONS. All bearings 8-10-8.
(lb) - Max Horz 12=-20(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 12, 8, 11, 9
Max Grav All reactions 250 lb or less at joint(s) 12, 8, 10, 11, 9

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=6.0psf; 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=1.33 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 2-0-0 oc.
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) 12, 8, 11, 9.
8) Non Standard bearing condition. Review required.
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.

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

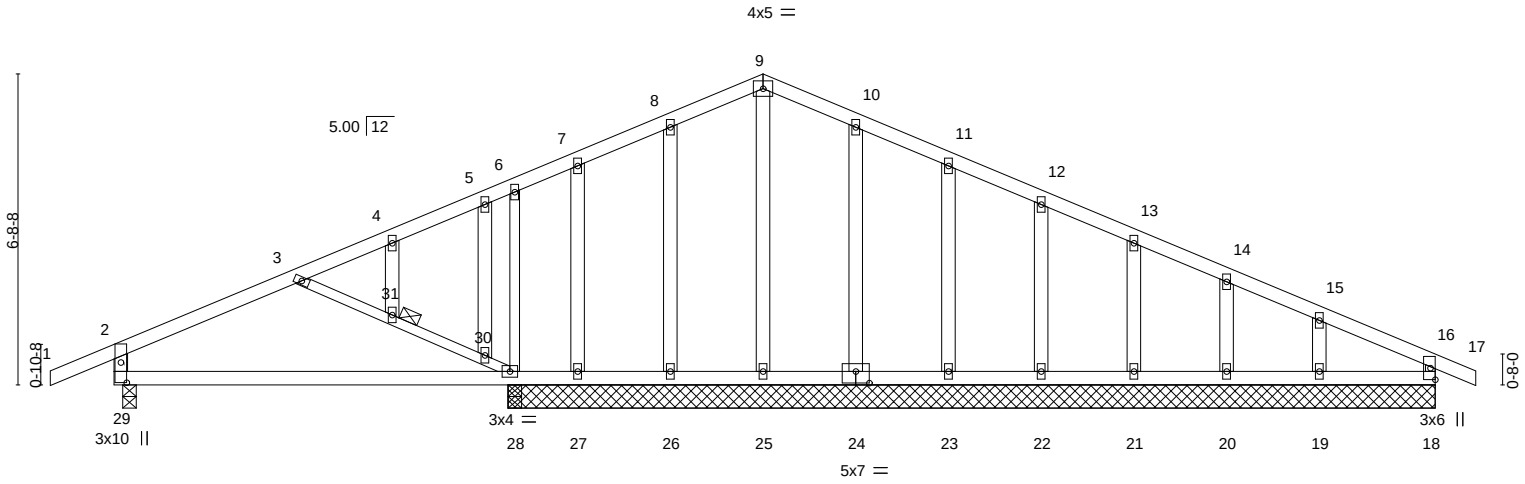
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	C2	GABLE	1	1	I45504496
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:15 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-yrsZ9_Rbbn6zhq1dhoS1_jDc?yortr9_?IPGqOzTmek

-1-4-8	4-0-9	8-7-11	14-0-0	28-6-0	29-4-8
1-4-8	4-0-9	4-7-2	5-4-5	14-6-0	0-10-8

Scale = 1:49.7



0-2-4	8-6-0	8-7-11	28-6-0
0-2-4	8-3-12	0-1-11	19-10-5

Plate Offsets (X,Y)-- [24:0-3-8,0-3-0], [29:0-5-4,0-1-8]

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	0.24	Vert(LL)	-0.12	28-29	>864	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.23	28-29	>439	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 125 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 2-29: 2x4 SPF No.2
OTHERS	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 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 28-29.
JOINTS	1 Brace at Jt(s): 31

REACTIONS. All bearings 20-0-0 except (jt=length) 29=0-3-8.
(lb) - Max Horz 29=-86(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 29, 28, 18, 26, 24, 23, 22, 21, 20, 19 except 27=-183(LC 3)
Max Grav All reactions 250 lb or less at joint(s) 18, 25, 26, 24, 23, 22, 21, 20, 19 except 29=420(LC 1), 28=647(LC 21), 28=647(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-283/64, 2-29=-340/89
WEBS 3-31=-339/157, 30-31=-350/162, 28-30=-365/170, 6-28=-251/106

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=6.0psf; 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=1.33 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
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) 29, 28, 18, 26, 24, 23, 22, 21, 20, 19 except (jt=lb) 27=183.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

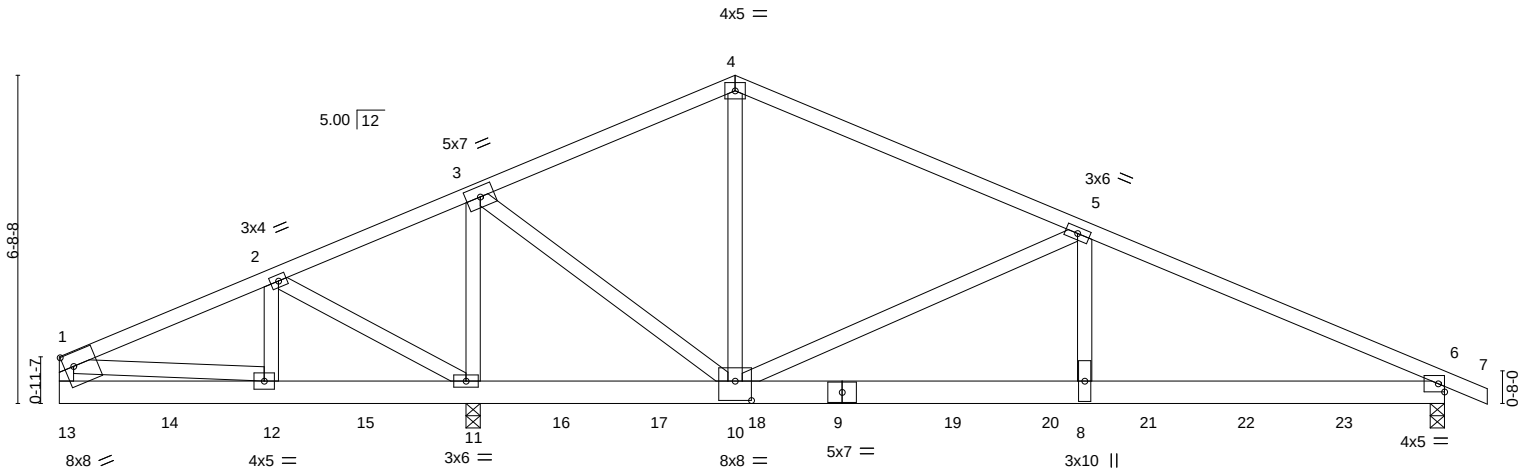
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	C3	COMMON GIRDER	1	3	I45504497
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:17 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-uD_KafTs7OMhw8A0pCVV38IqImOGLhyHTcuMvHzTmei

4-4-0 | 8-5-8 | 13-9-12 | 20-11-8 | 28-3-12 | 29-2-4
4-4-0 | 4-1-8 | 5-4-4 | 7-1-12 | 7-4-4 | 0-10-8

Scale = 1:47.1



4-4-0 | 8-3-12 | 8-5-8 | 13-9-12 | 20-11-8 | 28-3-12
4-4-0 | 3-11-12 | 0-1-12 | 5-4-4 | 7-1-12 | 7-4-4

Plate Offsets (X,Y)-- [10:0-4-0,0-4-12], [13:0-2-4,0-3-4]

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	0.76	Vert(LL)	-0.14	6-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.18	6-8	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 388 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 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 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 12-13.

REACTIONS. (size) 11=0-3-8, 6=0-3-8
Max Horz 11=-105(LC 37)
Max Uplift 11=-791(LC 8), 6=-596(LC 9)
Max Grav 11=6663(LC 1), 6=3631(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-98/647, 2-3=-243/1936, 3-4=-2356/351, 4-5=-2451/330, 5-6=-6296/887
BOT CHORD 11-12=-539/94, 10-11=-1731/288, 8-10=-731/5656, 6-8=-731/5656
WEBS 2-12=-99/892, 2-11=-1377/213, 3-11=-4812/549, 3-10=-452/4754, 4-10=-379/1525, 5-10=-3864/693, 5-8=-481/2766, 1-12=-695/132

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 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 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=6.0psf; 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=1.33 plate grip DOL=1.33
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) 11=791, 6=596.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 373 lb down and 61 lb up at 2-3-0, 373 lb down and 61 lb up at 4-3-0, 373 lb down and 61 lb up at 6-3-0, 373 lb down and 61 lb up at 8-3-0, 597 lb down and 212 lb up at 10-3-0, 597 lb down and 212 lb up at 12-3-0, 851 lb down and 40 lb up at 14-3-0, 931 lb down and 80 lb up at 16-3-0, 619 lb down and 255 lb up at 18-3-0, 619 lb down and 255 lb up at 20-3-0, 619 lb down and 255 lb up at 22-3-0, and 652 lb down and 202 lb up at 24-3-0, and 671 lb down and 214 lb up at 26-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 6,2021

Continued on page 2

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

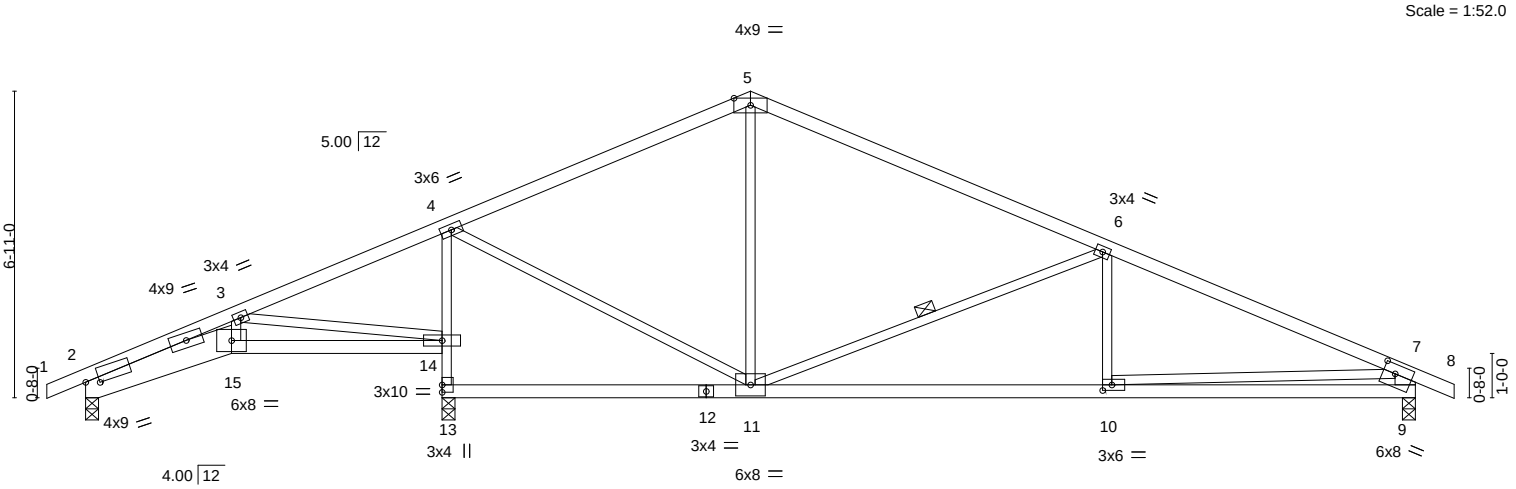
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-70, 4-7=-70, 6-13=-20
   Concentrated Loads (lb)
   Vert: 9=-931(B) 12=-373(B) 11=-373(B) 14=-373(B) 15=-373(B) 16=-597(B) 17=-597(B) 18=-851(B) 19=-619(B) 20=-619(B) 21=-619(B) 22=-652(B) 23=-671(B)

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	D1	Roof Special	4	1	I45504498
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:18 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-MQYin?TUuiUYYIlCNw0kcLr_tApN45mQiGdwRjzTmeh

-0-10-8 3-3-8 8-0-8 15-0-0 23-0-9 30-0-0 30-10-8
0-10-8 3-3-8 4-9-0 6-11-8 8-0-9 6-11-7 0-10-8

Scale = 1:52.0



3-3-8 8-0-8 8-2-4 15-0-0 23-0-9 30-0-0
3-3-8 4-9-0 0-1-12 6-9-12 8-0-9 6-11-7

Plate Offsets (X,Y)-- [2:0-3-11,0-1-4], [9:0-3-4,0-2-8], [10:0-2-8,0-1-8]

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	0.78	Vert(LL)	-0.08	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.19	10-11	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.02	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 114 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-15: 2x8 SP DSS, 4-13: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
7-9: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 3-8-9 oc bracing.
WEBS 1 Row at midpt 6-11

REACTIONS. (size) 2=0-3-8, 13=0-3-8, 9=0-3-8
Max Horz 2=100(LC 12)
Max Uplift 2=-43(LC 4), 13=-143(LC 8), 9=-145(LC 9)
Max Grav 2=353(LC 21), 13=1446(LC 1), 9=1020(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-747/58, 3-4=-55/263, 4-5=-814/184, 5-6=-833/159, 6-7=-1646/233, 7-9=-955/178
BOT CHORD 2-15=-117/650, 14-15=-110/574, 13-14=-1394/178, 4-14=-1223/181, 10-11=-146/1443, 9-10=-104/554
WEBS 3-15=0/314, 3-14=-708/148, 4-11=0/875, 6-11=-864/209, 6-10=0/263, 7-10=-42/891

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=6.0psf; 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=1.33 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 13=143, 9=145.
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

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

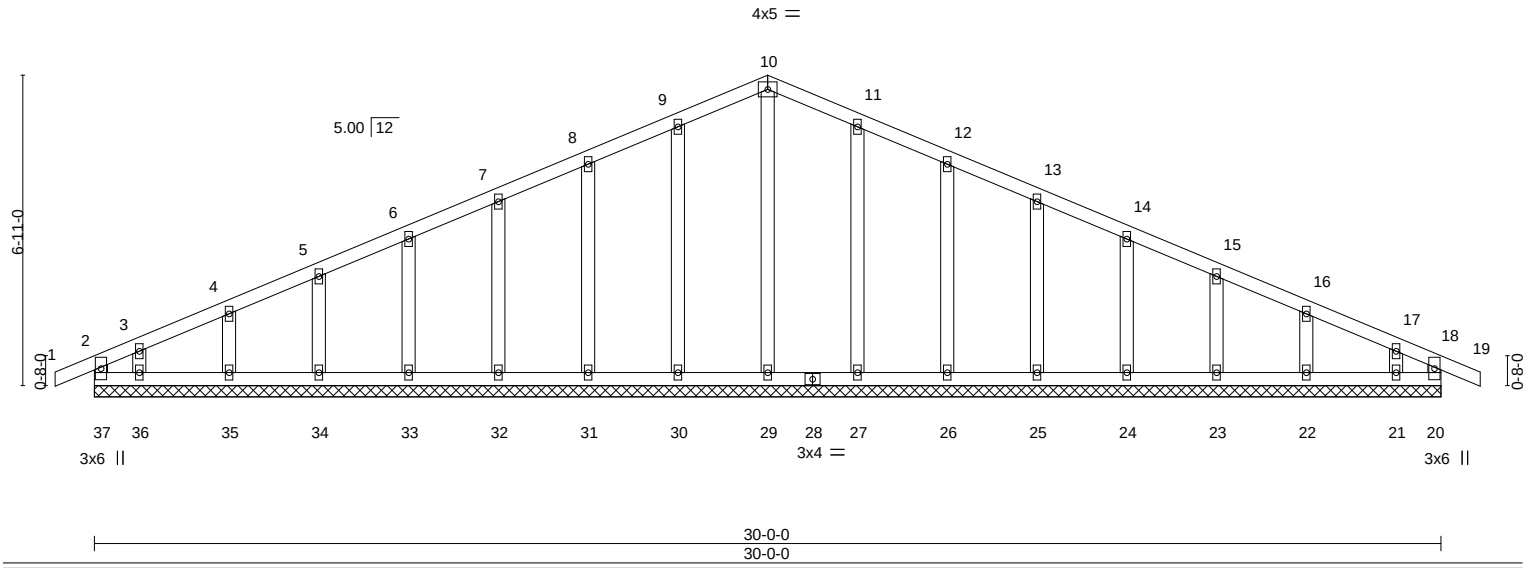
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	D2	GABLE	1	1	I45504499
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:20 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-JofSChVkQJkFnbvbUL2ChmwVOzdGY77j9a61VczTmef

-0-10-8 15-0-0 30-0-0 30-10-8
0-10-8 15-0-0 15-0-0 0-10-8

Scale = 1:51.3



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	0.07	Vert(LL)	-0.00	19	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	19	n/r	90		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	20	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 130 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

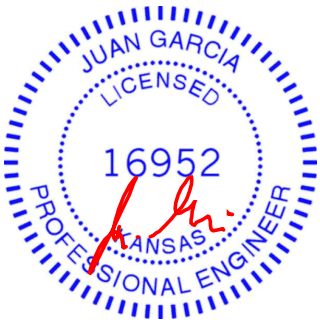
BRACING-

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

REACTIONS. All bearings 30-0-0.
(lb) - Max Horz 37=-92(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 37, 20, 30, 31, 32, 33, 34, 35, 36, 27, 26, 25, 24, 23, 22, 21
Max Grav All reactions 250 lb or less at joint(s) 37, 20, 29, 30, 31, 32, 33, 34, 35, 36, 27, 26, 25, 24, 23, 22, 21

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=6.0psf; 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=1.33 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 37, 20, 30, 31, 32, 33, 34, 35, 36, 27, 26, 25, 24, 23, 22, 21.
10) 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.



April 6,2021

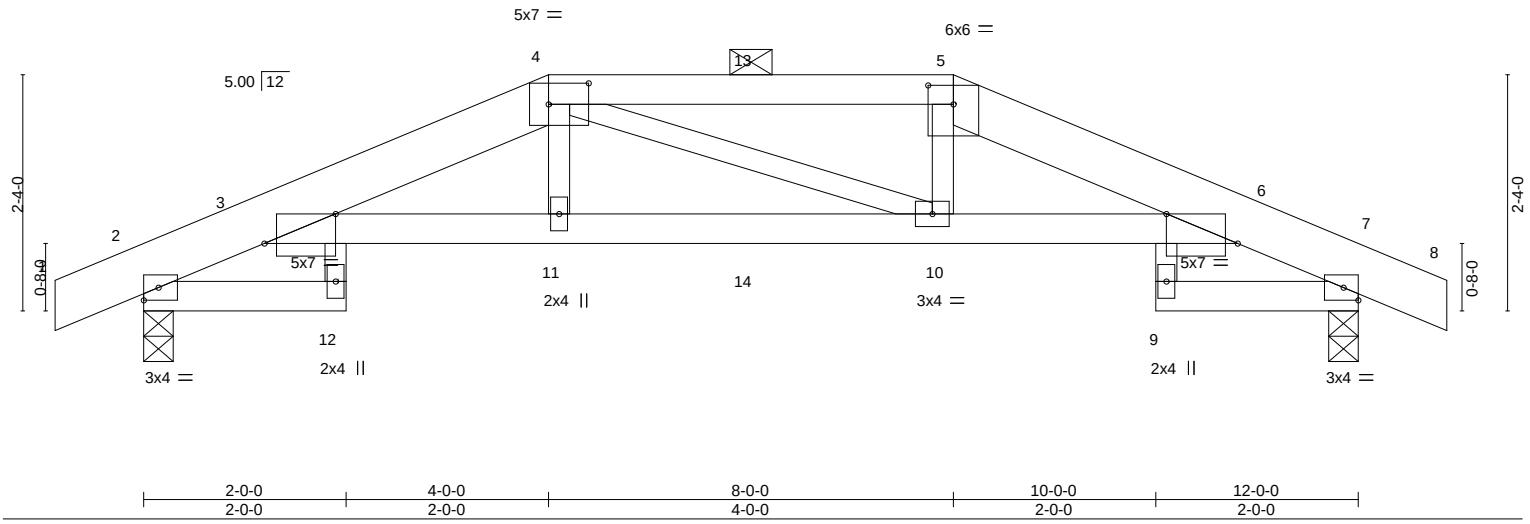
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	E1	Hip Girder	1	1	I45504500
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:23 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-jNLbrjXcjE7qe3eA9TcvJPYtyBUalTk9rYLh6wzTmec

-0-10-8 | 2-0-0 | 4-0-0 | 8-0-0 | 10-0-0 | 12-0-0 | 12-10-8
0-10-8 | 2-0-0 | 2-0-0 | 4-0-0 | 2-0-0 | 2-0-0 | 0-10-8

Scale = 1:22.8



2-0-0 | 4-0-0 | 8-0-0 | 10-0-0 | 12-0-0
2-0-0 | 2-0-0 | 4-0-0 | 2-0-0 | 2-0-0

Plate Offsets (X,Y)-- [3:0-8-7,Edge], [4:0-4-12,0-2-8], [5:0-3-0,0-2-4], [6:0-8-7,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	0.69	Vert(LL)	-0.09	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.16	10-11	>886	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.15	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 45 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except* 4-5: 2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-11-15 oc purlins, except 2-0-0 oc purlins (3-9-14 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-33(LC 13)
Max Uplift 2=-155(LC 8), 7=-155(LC 9)
Max Grav 2=916(LC 1), 7=916(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-484/110, 3-4=-2079/391, 4-5=-1985/382, 5-6=-2081/390, 6-7=-484/106
BOT CHORD 3-11=-332/1960, 10-11=-334/1984, 6-10=-330/1961
WEBS 4-11=-30/310, 5-10=-38/330

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=6.0psf; 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=1.33 plate grip DOL=1.33
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=155, 7=155.
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) 73 lb down and 49 lb up at 4-0-0, and 78 lb down and 49 lb up at 6-0-0, and 73 lb down and 49 lb up at 8-0-0 on top chord, and 229 lb down and 86 lb up at 4-0-0, and 34 lb down and 21 lb up at 6-0-0, and 229 lb down and 86 lb up at 7-11-4 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: 1-4=-70, 4-5=-70, 5-8=-70, 2-12=-20, 3-6=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 4=-37(F) 5=-37(F) 11=-229(F) 10=-229(F) 13=-37(F) 14=-34(F)

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

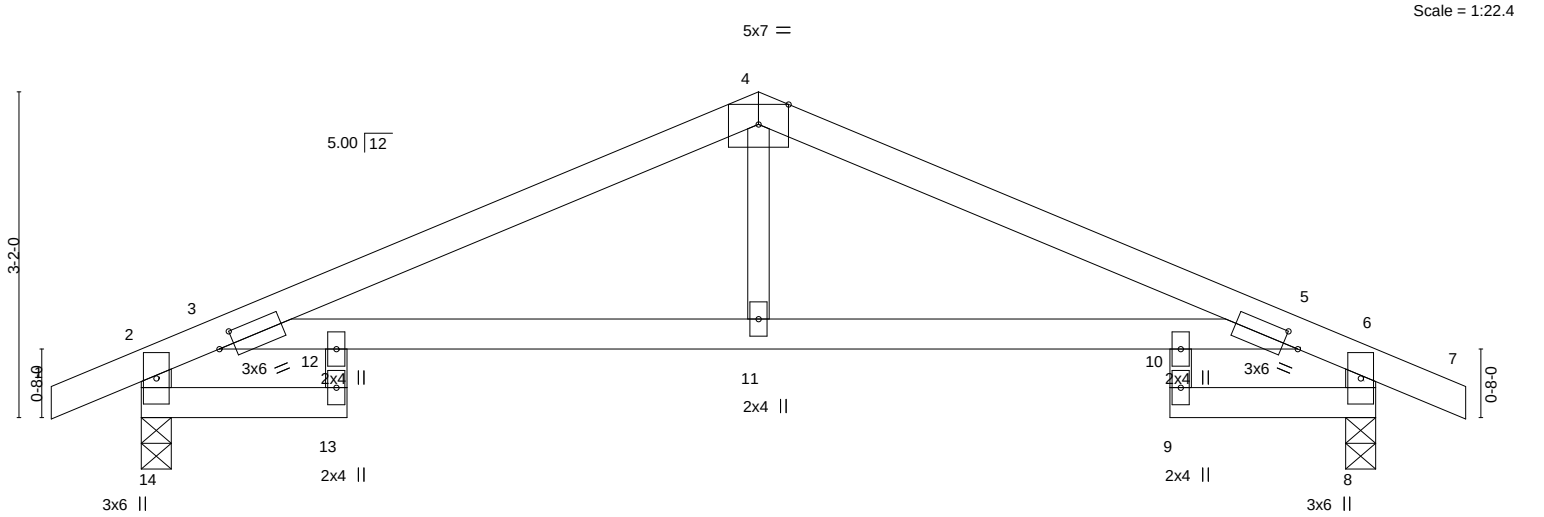
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	E2	Roof Special	3	1	I45504501
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:24 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-Bavz23YFUYFhGDDMjA78rc55tbqRUwDJ4C4EeNzTmeb

-0-10-8	2-0-0	6-0-0	10-0-0	12-0-0	12-10-8
0-10-8	2-0-0	4-0-0	4-0-0	2-0-0	0-10-8

Scale = 1:22.4



2-0-0	6-0-0	10-0-0	12-0-0
2-0-0	4-0-0	4-0-0	2-0-0

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

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	0.49	Vert(LL)	-0.08	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.16	10-11	>889	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.15	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 36 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14,6-8: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-11-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 10-11

REACTIONS. (size) 14=0-3-8, 8=0-3-8
Max Horz 14=-32(LC 9)
Max Uplift 14=-66(LC 8), 8=-66(LC 9)
Max Grav 14=598(LC 1), 8=598(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-936/55, 4-5=-936/69, 2-14=-621/90, 6-8=-621/85
BOT CHORD 3-12=-10/824, 11-12=-10/824, 10-11=-10/824, 5-10=-10/824
WEBS 4-11=0/312

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=6.0psf; 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=1.33 plate grip DOL=1.33
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) 14, 8.
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.

April 6,2021

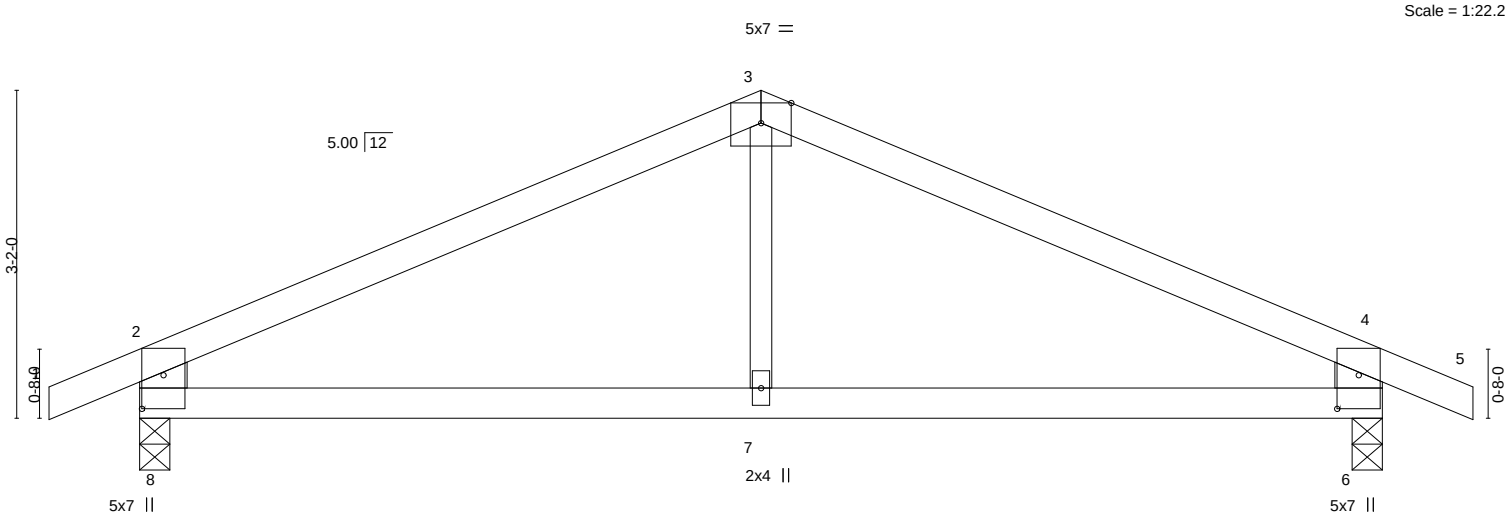
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	E3	Common	1	1	I45504502
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:24 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-Bavz23YFUYFhGDDMjA78rc55TbwbUwZJ4C4EeNzTmeb

-0-10-8 0-10-8 | 6-0-0 6-0-0 | 12-0-0 6-0-0 | 12-10-8 0-10-8

Scale = 1:22.2



6-0-0 6-0-0 | 12-0-0 6-0-0

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

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	0.45	Vert(LL)	-0.03	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.06	6-7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 34 lb	FT = 20%

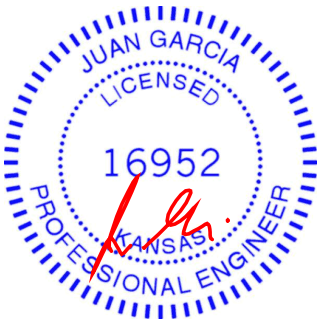
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except*
3-7: 2x3 SPF No.2

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) 8=0-3-8, 6=0-3-8
Max Horz 8=-31(LC 9)
Max Uplift 8=-67(LC 8), 6=-67(LC 9)
Max Grav 8=597(LC 1), 6=597(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-692/63, 3-4=-692/62, 2-8=-540/106, 4-6=-540/106
BOT CHORD 7-8=-6/556, 6-7=-6/556

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=6.0psf; 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=1.33 plate grip DOL=1.33
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) 8, 6.
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.



April 6,2021

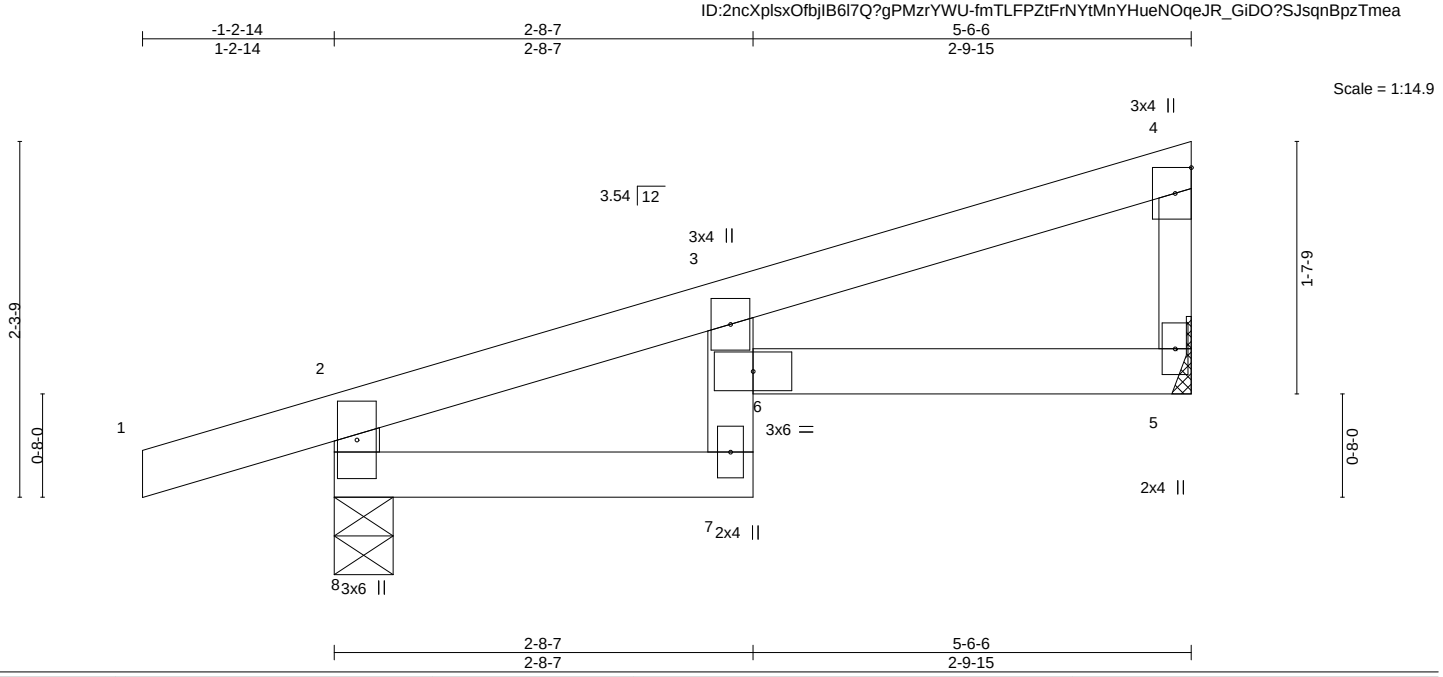
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	J1	Diagonal Hip Girder	2	1	I45504503

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:25 2021 Page 1

ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-fmTLFPZtFrNYtMnYHueNOqeJR_GiDO?SJsqnBpzTmea



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	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.07	6	>957	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 16 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 4-5: 2x3 SPF No.2

BRACING-

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

REACTIONS. (size) 8=0-4-9, 5=Mechanical
Max Horz 8=73(LC 5)
Max Uplift 8=-84(LC 4), 5=-37(LC 8)
Max Grav 8=346(LC 1), 5=224(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-311/97

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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=1.33 plate grip DOL=1.33
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) 8, 5.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 61 lb down and 30 lb up at 2-9-8, and 61 lb down and 30 lb up at 2-9-8 on top chord, and 2 lb down and 1 lb up at 2-6-11, and 2 lb down and 1 lb up at 2-6-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
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: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
   Concentrated Loads (lb)
   Vert: 7=2(F=1, B=1)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

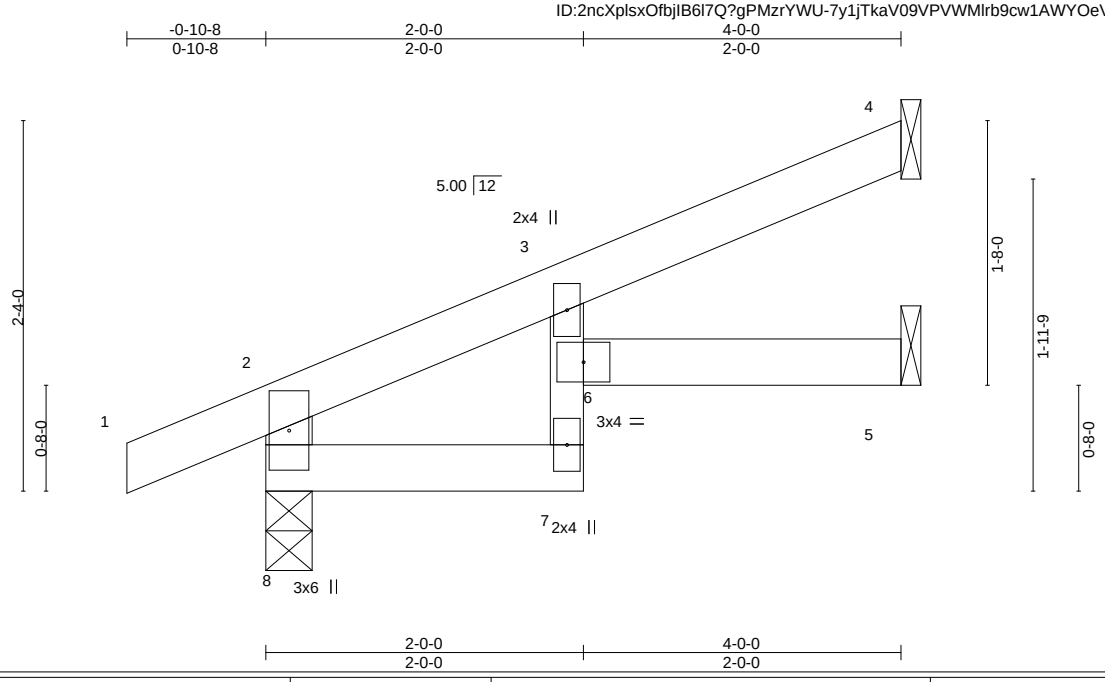
April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	J2	Jack-Open	3	1	I45504504
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:26 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-7y1jTkaV09VPVWMlrb9cw1AWYOeVyrEbXWZLjFzTmeZ



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	0.16	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 12 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	3-7: 2x3 SPF No.2
WEBS	2x4 SPF No.2

BRACING-

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

REACTIONS. (size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=66(LC 8)
Max Uplift 8=-27(LC 8), 4=-39(LC 8), 5=-1(LC 8)
Max Grav 8=252(LC 1), 4=107(LC 1), 5=61(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=6.0psf; 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=1.33 plate grip DOL=1.33
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) 8, 4, 5.
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

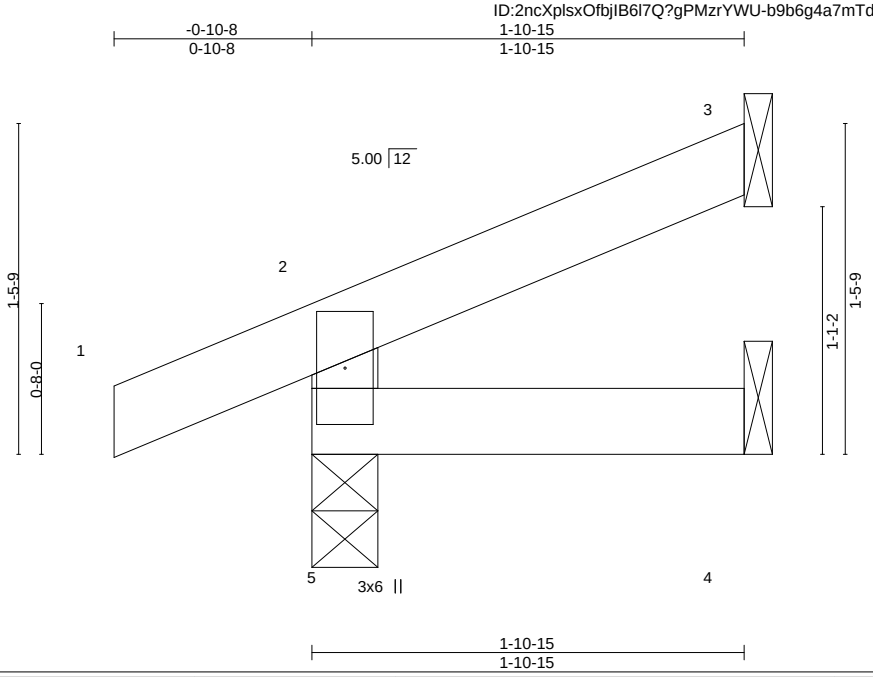
April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	J3	Jack-Open	4	1	I45504505
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:27 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-b9b6g4a7mTdG7gxxOJgrTFjido?8gIUlmAJuFizTmeY



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)	-0.00	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	5	>999	240		
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-R							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 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=35(LC 8)
Max Uplift 5=-27(LC 4), 3=-24(LC 8)
Max Grav 5=171(LC 1), 3=44(LC 1), 4=31(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=6.0psf; 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=1.33 plate grip DOL=1.33
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, 3.
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

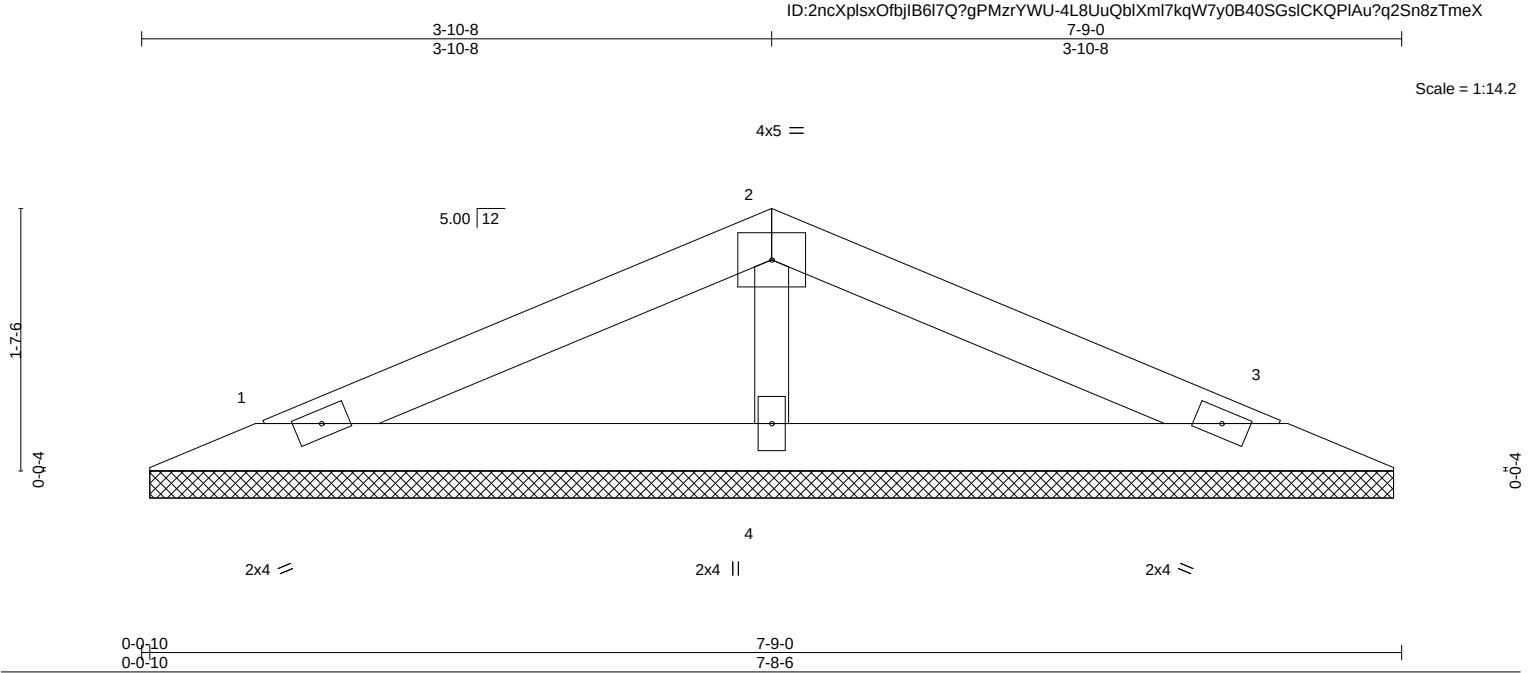
April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	V1	Valley	1	1	I45504506
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:28 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-4L8UuQblXml7kqW7y0B40SGslCKQPlAu?q2Sn8zTmeX



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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	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-P							Weight: 17 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 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=7-7-13, 3=7-7-13, 4=7-7-13
Max Horz 1=21(LC 12)
Max Uplift 1=-26(LC 8), 3=-29(LC 9)
Max Grav 1=142(LC 1), 3=142(LC 1), 4=278(LC 1)

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=6.0psf; 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=1.33 plate grip DOL=1.33
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.

April 6,2021

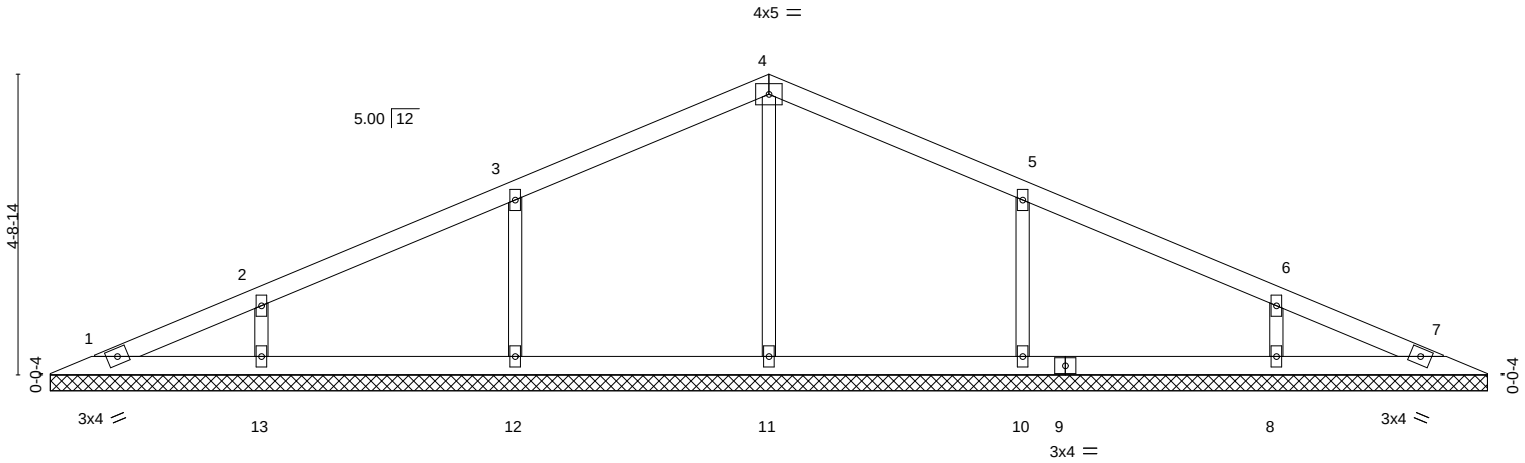
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	V3	Valley	1	1	I45504507
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:28 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-4L8UuQblXml7kqW7y0B40SGrOCKEPkzu?q2Sn8zTmeX

11-4-8 | 22-9-1
11-4-8 | 11-4-8

Scale = 1:36.3



22-8-7 | 22-9-1
22-8-7 | 0-0-10

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 61 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 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 22-7-14.
(lb) - Max Horz 1=70(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 12, 13, 10, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=308(LC 1), 12=392(LC 21), 13=326(LC 1), 10=392(LC 22), 8=326(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-12=-310/137, 5-10=-310/137

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=6.0psf; 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=1.33 plate grip DOL=1.33
3) All plates are 2x4 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, 12, 13, 10, 8.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

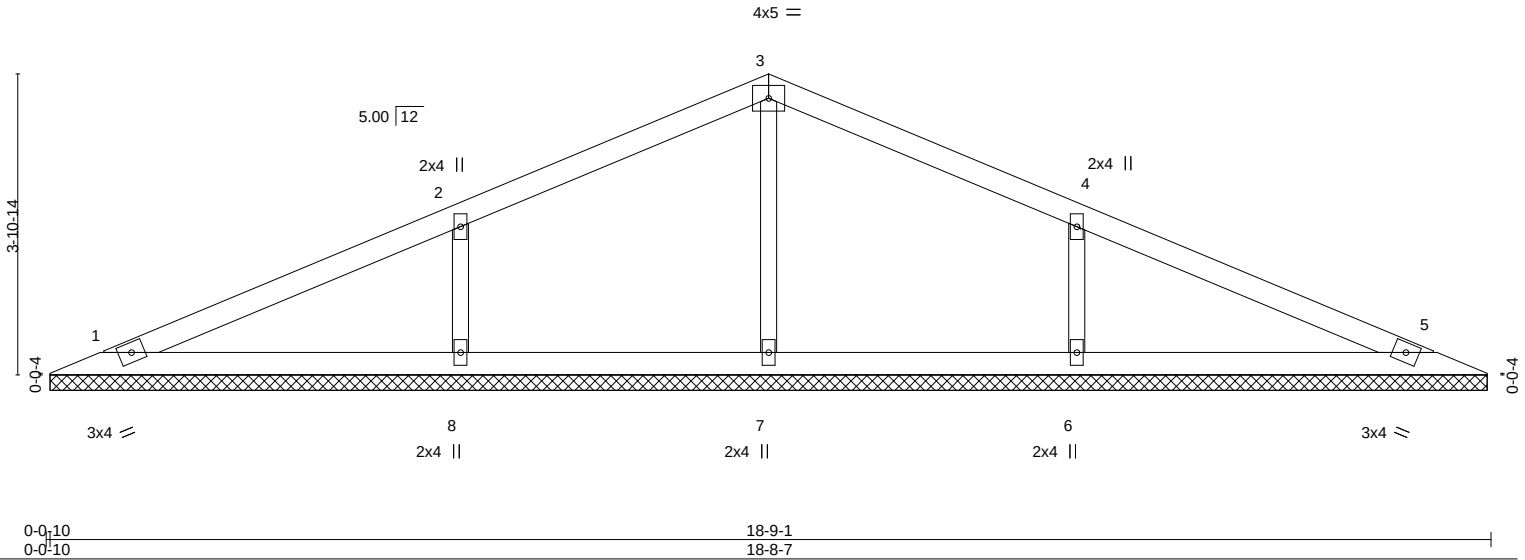
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	V4	Valley	1	1	I45504508
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:29 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-YXis5mcNI4t_M_5JWkjJYgo?4cfk8Bu2EUo?KazTmeW

9-4-8 | 18-9-1
9-4-8 | 9-4-8

Scale = 1:29.9



0-0-10 | 18-9-1
0-0-10 | 18-8-7

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	0.26	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	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 48 lb	FT = 10%

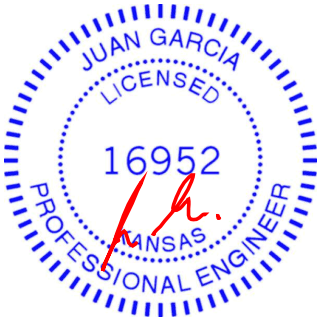
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

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 18-7-14.
(lb) - Max Horz 1=57(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-103(LC 8), 6=-103(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=267(LC 1), 8=472(LC 21), 6=472(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-361/156, 4-6=-361/156

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=6.0psf; 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=1.33 plate grip DOL=1.33
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, 5 except (jt=lb) 8=103, 6=103.
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.



April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

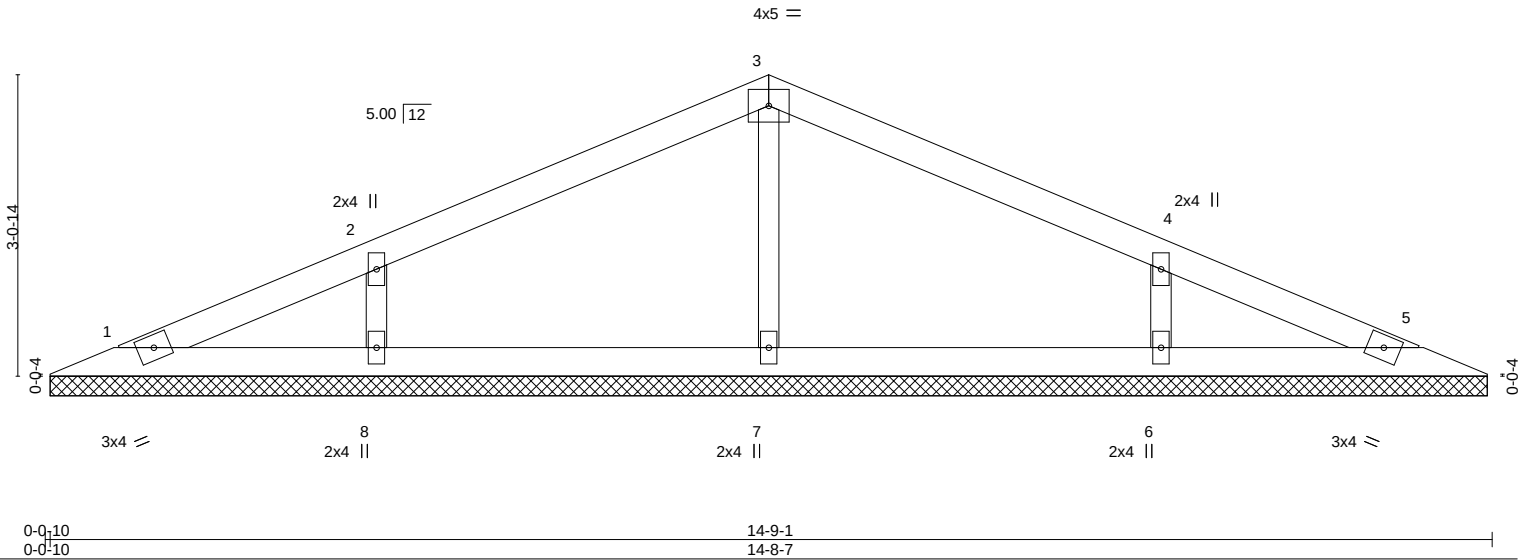
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	V5	Valley	1	1	I45504509
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:30 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-0jGEJ6d?3O?r_8gW4REY5tLCJ?0dtfLBS8XYs0zTmeV

7-4-8 14-9-1
7-4-8 7-4-8

Scale = 1:23.5



0-0-10 14-9-1
0-0-10 14-8-7

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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 36 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 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 14-7-14.
(lb) - Max Horz 1=-44(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=321(LC 1), 8=358(LC 21), 6=358(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-284/124, 4-6=-284/124

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=6.0psf; 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=1.33 plate grip DOL=1.33
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, 5, 8, 6.
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

April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

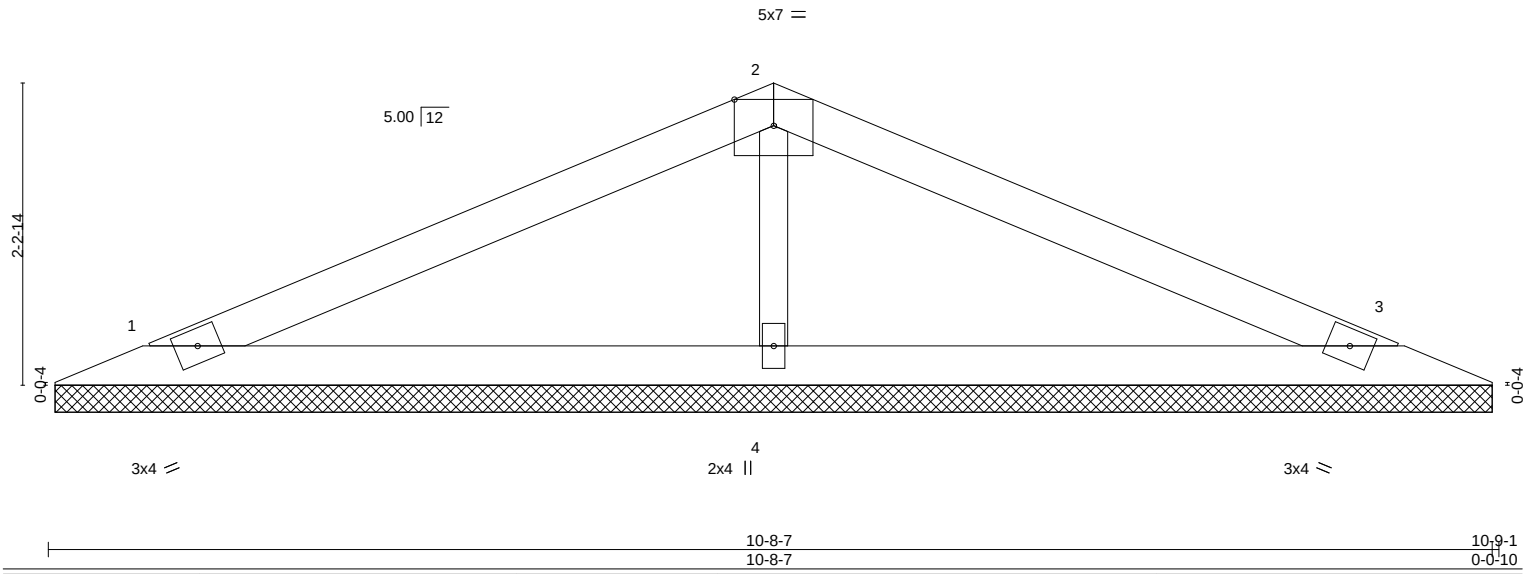
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	V6	Valley	1	1	I45504510
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:31 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-UwqcWSdeqh7ibHFid9lnd5tK6PLcc6XLhoH6OTzTmeU

5-4-8 10-9-1
5-4-8 5-4-8

Scale = 1:17.1



10-8-7 10-9-1
10-8-7 0-0-10

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)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	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: 25 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 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=10-7-14, 3=10-7-14, 4=10-7-14
Max Horz 1=31(LC 12)
Max Uplift 1=-31(LC 8), 3=-36(LC 9), 4=-13(LC 8)
Max Grav 1=191(LC 21), 3=191(LC 22), 4=458(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-318/70

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=6.0psf; 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=1.33 plate grip DOL=1.33
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

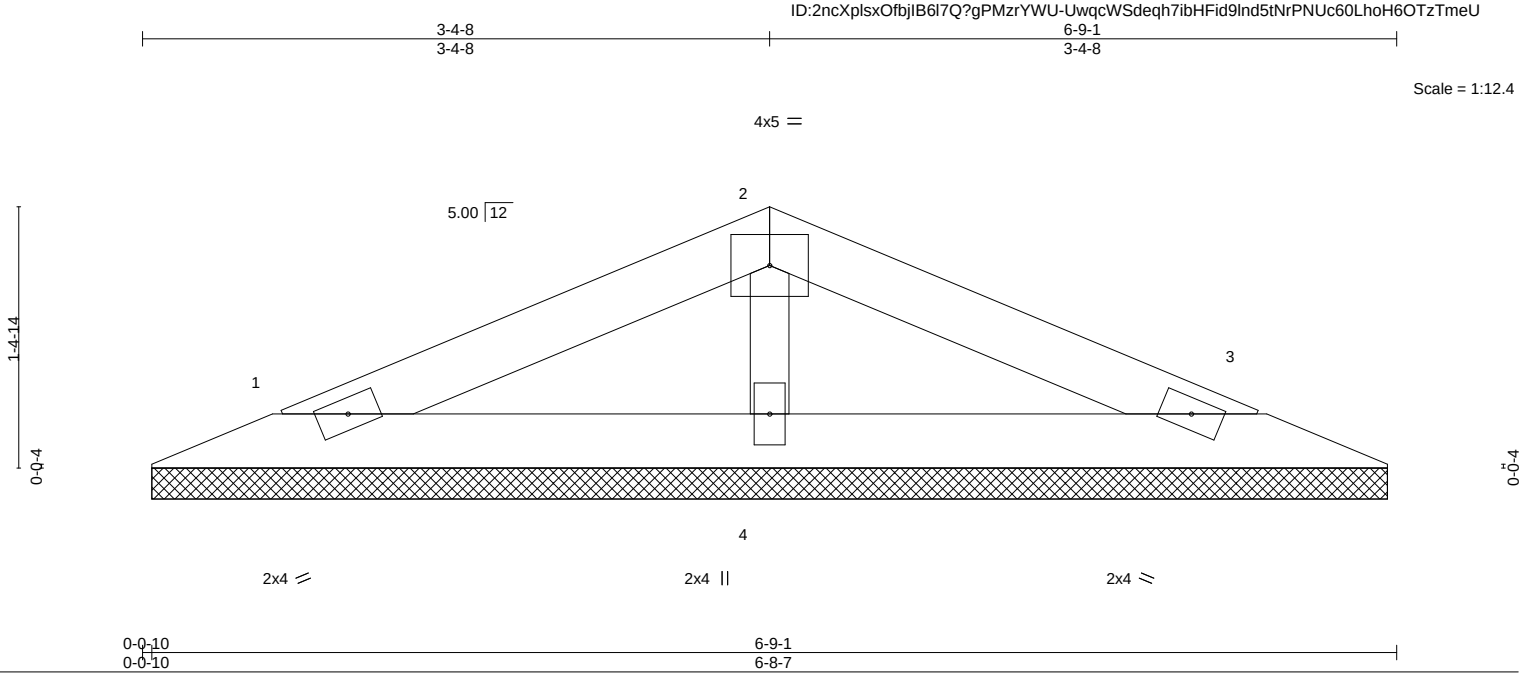
April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 MN
210372	V7	Valley	1	1	I45504511
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 12:20:31 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-UwqcWSdeqh7ibHFid9lnd5tNrPNUc60LhoH6OTzTmeU



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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 15 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 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=6-7-14, 3=6-7-14, 4=6-7-14
Max Horz 1=-17(LC 9)
Max Uplift 1=-22(LC 8), 3=-25(LC 9)
Max Grav 1=119(LC 1), 3=119(LC 1), 4=234(LC 1)

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=6.0psf; 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=1.33 plate grip DOL=1.33
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.

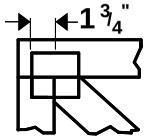
April 6,2021

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/28/2021

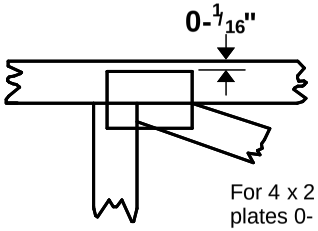
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

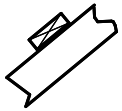
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

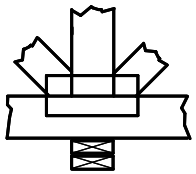
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

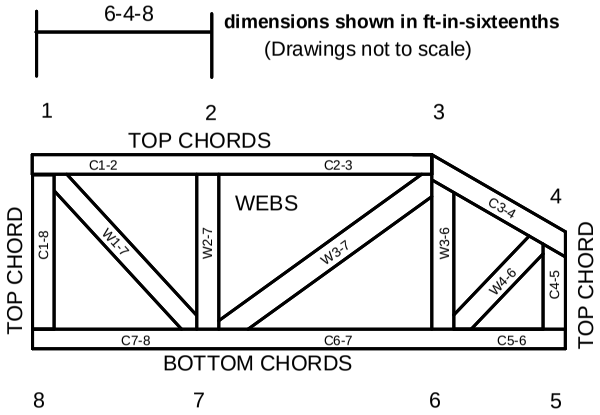


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.