



RE: 2538913
Summit/3 Woodside

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

Site Information:

Customer: Project Name: 2538913
Lot/Block:
Address:
City:

Model:
Subdivision:
State:



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

Design Code: IRC2018/TPI2014
Wind Code: N/A
Roof Load: 45.0 psf

Design Program: MiTek 20/20 8.2
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 41 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I43520189	A1	11/11/2020	21	I43520209	C3	11/11/2020
2	I43520190	A2A	11/11/2020	22	I43520210	C4	11/11/2020
3	I43520191	A2B	11/11/2020	23	I43520211	D1	11/11/2020
4	I43520192	A2C	11/11/2020	24	I43520212	D2	11/11/2020
5	I43520193	A2D	11/11/2020	25	I43520213	D3	11/11/2020
6	I43520194	A2E	11/11/2020	26	I43520214	GR1	11/11/2020
7	I43520195	A2F	11/11/2020	27	I43520215	GR2	11/11/2020
8	I43520196	A3	11/11/2020	28	I43520216	JD1	11/11/2020
9	I43520197	A4	11/11/2020	29	I43520217	JD2	11/11/2020
10	I43520198	A5	11/11/2020	30	I43520218	JD3	11/11/2020
11	I43520199	A6	11/11/2020	31	I43520219	LG1	11/11/2020
12	I43520200	A7	11/11/2020	32	I43520220	LG2	11/11/2020
13	I43520201	A8	11/11/2020	33	I43520221	LG3	11/11/2020
14	I43520202	A9	11/11/2020	34	I43520222	LG4	11/11/2020
15	I43520203	A10	11/11/2020	35	I43520223	M1	11/11/2020
16	I43520204	A11	11/11/2020	36	I43520224	M2	11/11/2020
17	I43520205	A12	11/11/2020	37	I43520225	M3	11/11/2020
18	I43520206	A13	11/11/2020	38	I43520226	M4	11/11/2020
19	I43520207	C1	11/11/2020	39	I43520227	P1	11/11/2020
20	I43520208	C2	11/11/2020	40	I43520228	P2	11/11/2020

The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Builders FirstSource (Valley Center).
Truss Design Engineer's Name: Sevier, Scott
My license renewal date for the state of Missouri is December 31, 2021.
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.



Job 2538913	Truss A1	Truss Type Common Supported Gable	Qty 1	Ply 1	Summit/3 Woodside Job Reference (optional)	I43520189
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:16 2020 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-RPZbeCax9w3m6YSl6ezjwh5HtENo9mpn0c5mqSyM8jn

0-11-0 15-6-0 31-0-0
0-11-0 15-6-0 15-6-0

Scale = 1:54.5

4x4 =

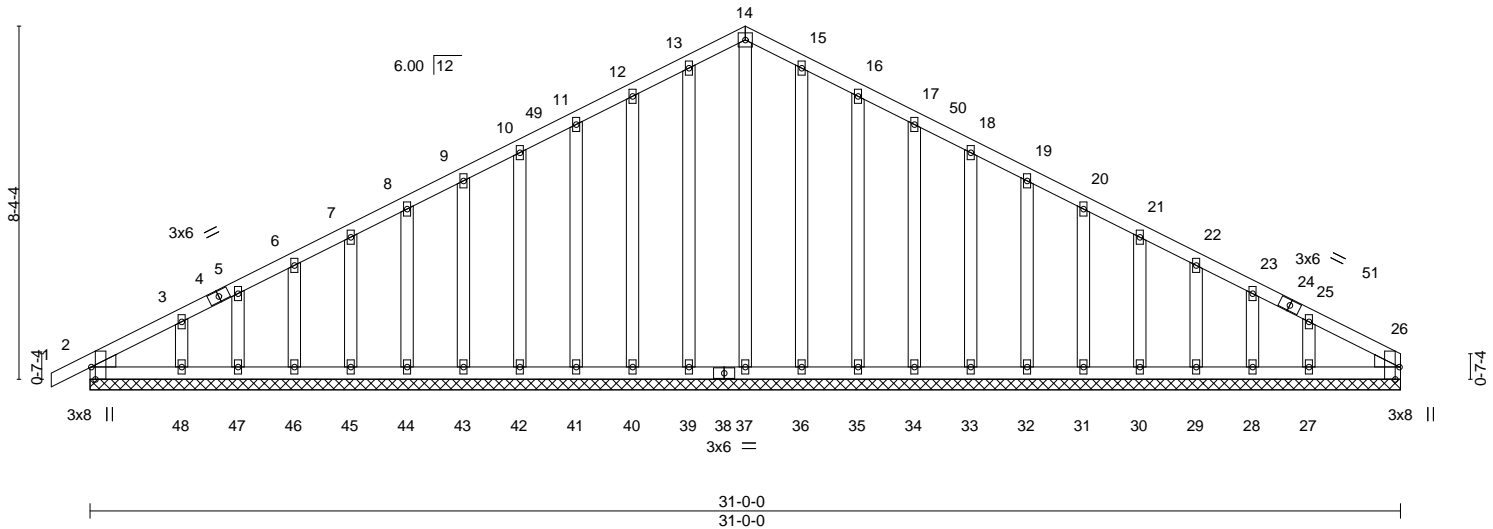


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [26:0-0-1,0-0-3], [26:0-0-3,0-5-0], [26:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.06	Vert(LL) -0.00	1	n/r	120	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT) 0.00	1	n/r	120		
TCDL 10.0	Lumber DOL 1.15	WB 0.17	Horz(CT) 0.00	26	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 181 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

BRACING-

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

REACTIONS.

All bearings 31-0-0.

(lb) - Max Horz 2=156(LC 15)

Max Uplift All uplift 100 lb or less at joint(s) 2, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27

Max Grav All reactions 250 lb or less at joint(s) 2, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-2-0, Exterior(2N) 2-2-0 to 15-6-0, Corner(3R) 15-6-0 to 18-6-0, Exterior(2N) 18-6-0 to 31-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27.
- 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.



November 6, 2020

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2538913	Truss A2A	Truss Type Roof Special	Qty 1	Ply 1	Summit/3 Woodside Job Reference (optional)	I43520190
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:29 2020 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGww6-ZvsWMfk55wiwAYynNsinyQ7LdTbbiWQh?7lynCyM8ja

-0-11-0 7-9-3 15-6-0 21-10-10 28-0-13 31-0-0
0-11-0 7-9-3 7-8-13 6-4-10 6-2-4 2-11-3

Scale = 1:59.4

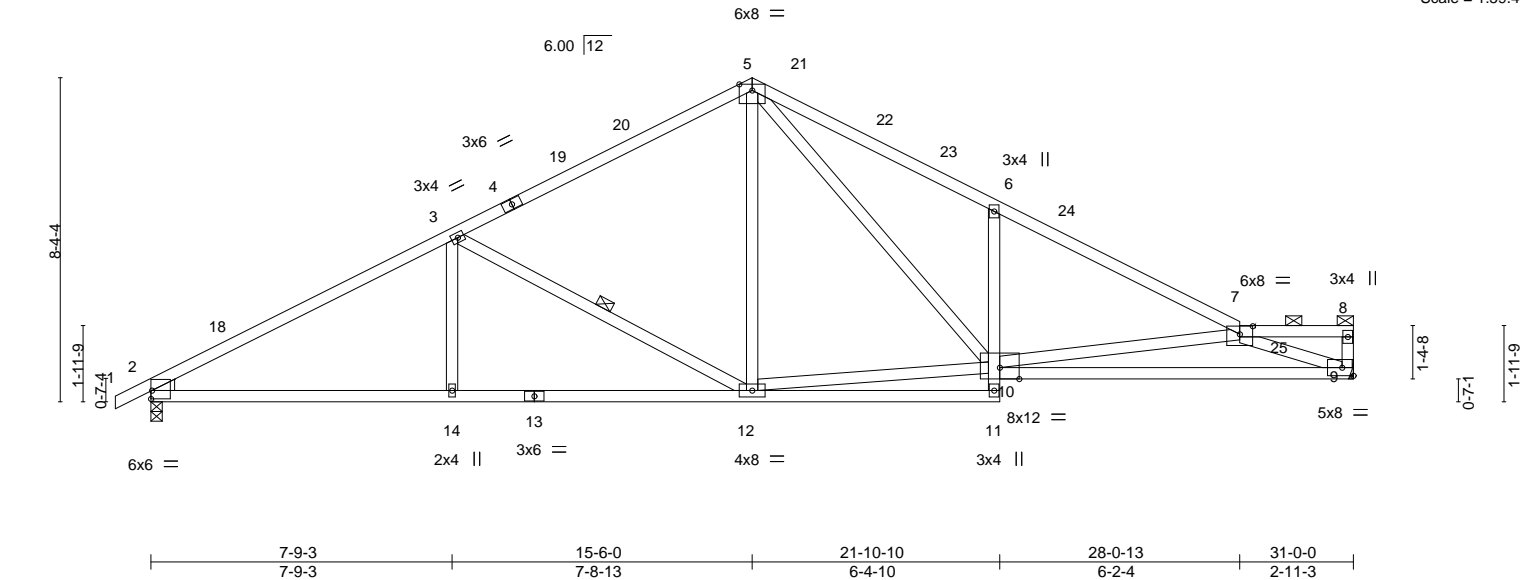


Plate Offsets (X,Y)-- [2:Edge,0-2-9], [2:0-5-0,0-0-3], [2:0-0-3,0-0-1], [7:0-4-0,0-2-8]															
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc) I/defl L/d		PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.20	9-10	>999	240		MT20		197/144	
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.46	9-10	>803	180					
TCDL	10.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.11	9	n/a	n/a					
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS											
BCDL	10.0											Weight: 133 lb	FT = 20%		

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2	BOT CHORD	2-0-0 oc purlins (6-0-0 max.): 7-8.
WEBS	2x4 SPF No.2	WEBS	Rigid ceiling directly applied.
WEDGE			1 Row at midpt
Left: 2x4 SPF No.2			3-12

REACTIONS. (size) 9=Mechanical, 2=0-3-8
Max Horz 2=169(LC 15)
Max Uplift 9=113(LC 16), 2=141(LC 16)
Max Grav 9=1387(LC 2), 2=1454(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2369/290, 3-5=-1666/277, 5-6=-2437/404, 6-7=-2463/305
BOT CHORD 2-14=-251/2021, 12-14=-251/2021, 6-10=-589/174, 9-10=-423/3085
WEBS 3-14=0/293, 3-12=-772/155, 5-12=-8/444, 10-12=-49/1166, 5-10=-189/1285,
7-10=-958/195, 7-9=-3157/487

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior(1) 18-6-0 to 30-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=113, 2=141.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	
2538913	A2B	Roof Special	1	1		I43520191

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:31 2020 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-VHzGnKMLdXyePs6AUHIF1rChHHGVARI_TRE3s5yM8jY

0-11-0 7-9-3 15-6-0 21-10-10 25-4-13 31-0-0
0-11-0 7-9-3 7-8-13 6-4-10 3-6-4 5-7-3

Scale = 1:59.4

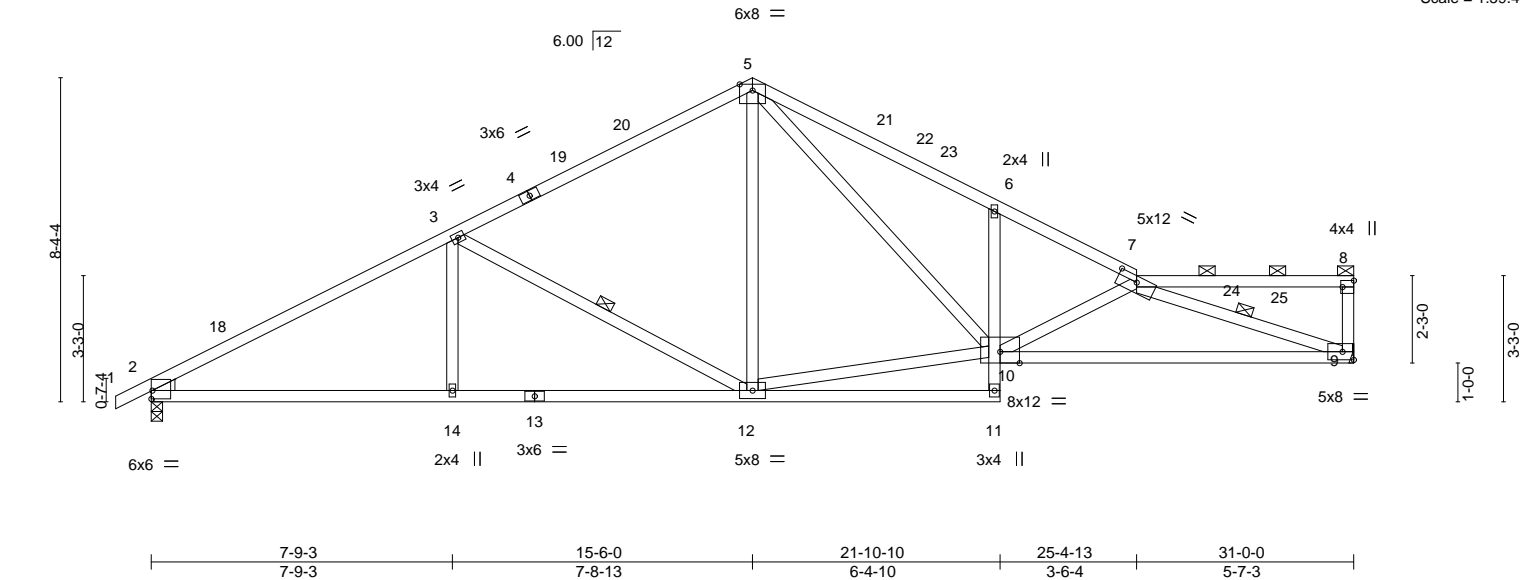


Plate Offsets (X,Y)-- [2:Edge,0-2-9], [2:0-5-0,0-0-3], [2:0-0-3,0-0-1], [7:0-6-0,0-1-14], [8:Edge,0-3-8]													
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc) I/defl L/d		PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.21	9-10	>999	240	MT20	197/144	
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.48	9-10	>777	180			
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.12	9	n/a	n/a			
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS									
BCDL	10.0												
											Weight: 134 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 3-12, 7-9
WEDGE			
Left: 2x4 SPF No.2			

REACTIONS. (size) 9=Mechanical, 2=0-3-8
Max Horz 2=179(LC 15)
Max Uplift 9=113(LC 16), 2=140(LC 16)
Max Grav 9=1387(LC 2), 2=1454(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2368/289, 3-5=-1668/277, 5-6=-2657/420, 6-7=-2662/322, 8-9=-258/60
BOT CHORD 2-14=-295/2020, 12-14=-295/2020, 6-10=-453/138, 9-10=-414/3048
WEBS 3-14=0/292, 3-12=-771/155, 5-12=-0/386, 10-12=-125/1293, 5-10=-207/1427, 7-10=-832/155, 7-9=-3094/424

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior(1) 18-6-0 to 30-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=113, 2=140.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520194
2538913	A2E	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:37 2020 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-KRLX2Or6CNin7nZKrYsfG6SjihM8aAqsrNhN3kyM8jS

0-11-0 7-9-3 15-6-0 21-10-10 26-8-13 31-0-0
0-11-0 7-9-3 7-8-13 6-4-10 4-10-4 4-3-3

Scale = 1:59.5

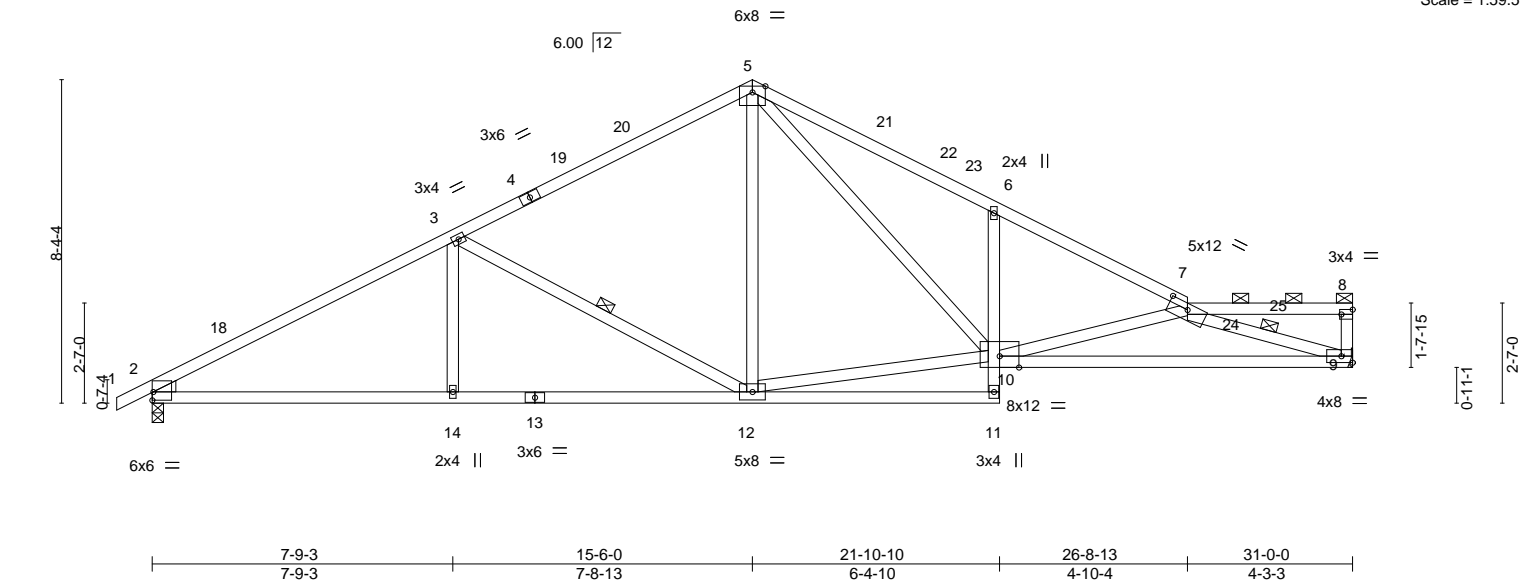


Plate Offsets (X,Y)-- [2:Edge,0-2-9], [2:0-5-0,0-0-3], [2:0-0-3,0-0-1], [7:0-6-0,0-1-14], [8:Edge,0-1-8]													
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc) I/defl L/d		PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.20	9-10	>999	240		MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.46	9-10	>805	180			
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.12	9	n/a	n/a			
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS								Weight: 133 lb	FT = 20%
BCDL	10.0												

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2 *Except*	BOT CHORD	2-0-0 oc purlins (6-0-0 max.): 7-8.
	9-10: 2x4 SPF 1650F 1.5E		Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 3-12, 7-9
WEDGE			
Left: 2x4 SPF No.2			

REACTIONS. (size) 9=Mechanical, 2=0-3-8
Max Horz 2=170(LC 15)
Max Uplift 9=113(LC 16), 2=140(LC 16)
Max Grav 9=1387(LC 2), 2=1454(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2368/290, 3-5=-1667/277, 5-6=-2617/418, 6-7=-2625/322
BOT CHORD 2-14=-271/2020, 12-14=-271/2020, 6-10=-520/157, 9-10=-458/3386
WEBS 3-14=0/292, 3-12=-771/155, 5-12=-2/398, 10-12=-95/1264, 5-10=-204/1446, 7-10=-1136/205, 7-9=-3402/488

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior(1) 18-6-0 to 30-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=113, 2=140.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 6, 2020

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520195
2538913	A2F	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:39 2020 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-GqSIS3sMk?y/VN4jiyzu7MXY1dV1a23J9JhAU8dyM8jQ

-0-11-0 7-9-3 15-6-0 21-10-10 22-5-7 29-4-13 31-0-0
0-11-0 7-9-3 7-8-13 6-4-10 0-6-13 6-11-7 1-7-3

Scale = 1:59.4

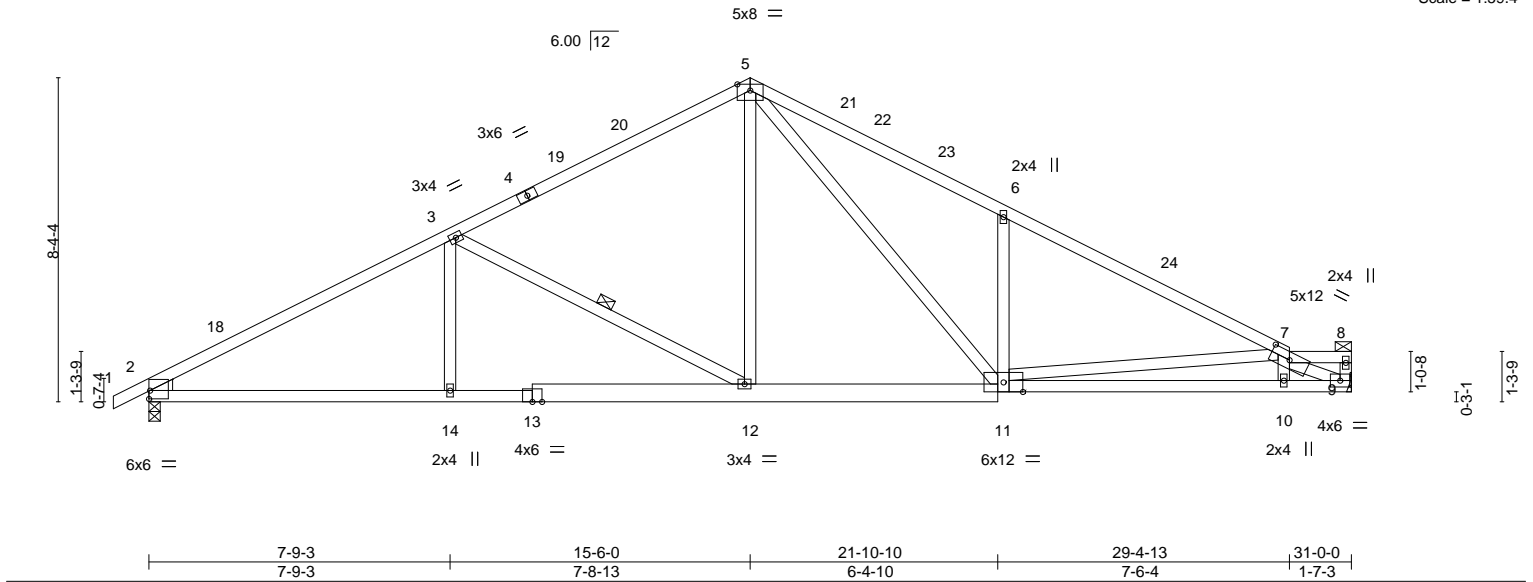


Plate Offsets (X,Y)-- [2:Edge,0-2-9], [2:0-5-0,0-0-3], [2:0-0-3,0-0-1], [7:0-6-0,0-2-6]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP			
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.14	10-11	>999	240	MT20	197/144	
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.30	10-11	>999	180			
TCDL	10.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.09	9	n/a	n/a			
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS									
BCDL	10.0											Weight: 134 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2 *Except*	BOT CHORD	2-0-0 oc purlins (6-0-0 max.): 7-8.
	11-13: 2x6 SPF No.2		Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt
WEDGE			3-12
Left: 2x4 SPF No.2			

REACTIONS. (size) 9=Mechanical, 2=0-3-8
Max Horz 2=167(LC 15)
Max Uplift 9=112(LC 16), 2=141(LC 16)
Max Grav 9=1387(LC 2), 2=1454(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2362/291, 3-5=-1671/277, 5-6=-2311/403, 6-7=-2308/288
BOT CHORD 2-14=-229/2016, 12-14=-229/2017, 11-12=-92/1380, 10-11=-282/2551, 9-10=-296/2537
WEBS 5-12=-12/523, 6-11=-667/192, 5-11=-189/1120, 3-14=0/272, 3-12=-761/155, 7-10=0/250, 7-11=-676/84, 7-9=-2742/312

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior(1) 18-6-0 to 30-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=112, 2=141.
 - 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.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520196
2538913	A3	Common	3	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-k00ggPt_VI4M_ElvWgPMul4DpvMlncsJXLv1g3yM8jP

0-11-0 7-9-3 15-6-0 23-2-13 31-0-0 31-11-0
0-11-0 7-9-3 7-8-13 7-8-13 7-9-3 0-11-0

Scale = 1:54.7

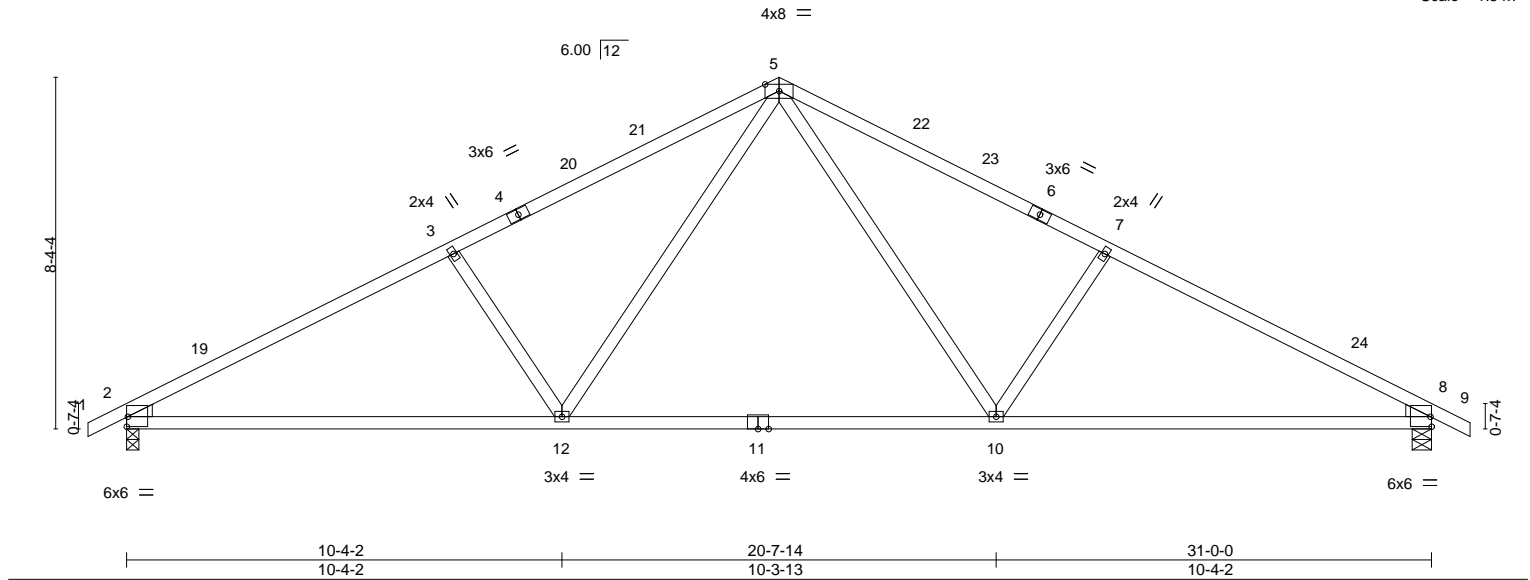


Plate Offsets (X,Y)-- [2:0-0-3,0-0-1], [2:0-5-0,0-0-3], [2:Edge,0-2-13], [8:0-0-3,0-0-1], [8:0-5-0,0-0-3], [8:Edge,0-2-13]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.18	10-12	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.42	10-12	>891	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.08	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 111 lb	FT = 20%
BCDL	10.0											

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		
WEDGE			
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2			

REACTIONS. (size) 2=0-3-8, 8=0-5-8
Max Horz 2=157(LC 15)
Max Uplift 2=141(LC 16), 8=141(LC 16)
Max Grav 2=1459(LC 2), 8=1459(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2359/303, 3-5=-2085/327, 5-7=-2085/328, 7-8=-2359/303
BOT CHORD 2-12=-175/2015, 10-12=-44/1359, 8-10=-180/2015
WEBS 5-10=-74/763, 7-10=-517/177, 5-12=-74/763, 3-12=-517/177

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior(1) 18-6-0 to 31-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=141, 8=141.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

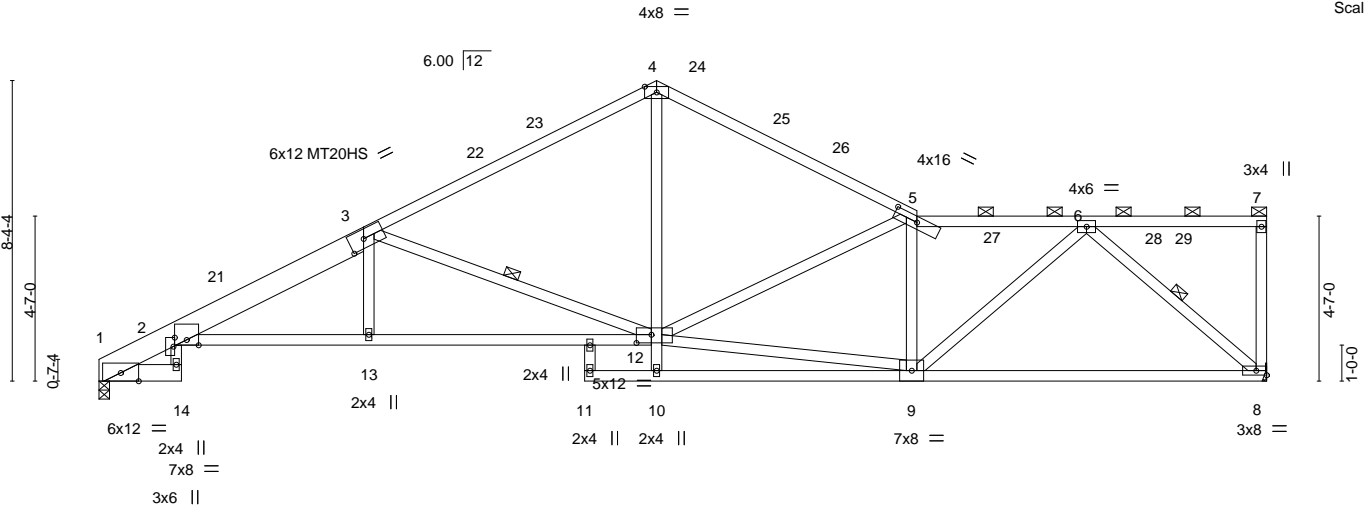
Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520199
2538913	A6	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:45 2020 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-5_pZj7x7Krje5?AsJD?Xboo0Xw1oSkw2hddoLHyM8jK

2-3-8	7-6-0	15-6-0	22-8-13	27-5-7	32-5-8
2-3-8	5-2-8	8-0-0	7-2-13	4-8-9	5-0-1

Scale: 3/16"=1'



2-3-8	7-6-0	13-6-0	15-6-0	22-8-13	32-5-8
2-3-8	5-2-8	6-0-0	2-0-0	7-2-13	9-8-11

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.96	Vert(LL)	-0.23	8-9	>999	MT20	197/144
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.98	Vert(CT)	-0.51	12-13	>756	MT20HS	148/108
TCDL 10.0	Lumber DOL 1.15	WB 0.81	Horz(CT)	0.24	8	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 167 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-3: 2x8 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-7-7 max.): 5-7.
BOT CHORD 2x4 SPF No.2 *Except* 1-14: 2x6 SPF No.2, 8-11: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 3-12, 6-8

REACTIONS. (size) 8=Mechanical, 1=0-3-8
Max Horz 1=219(LC 15)
Max Uplift 8=112(LC 16), 1=106(LC 16)
Max Grav 8=1464(LC 2), 1=1471(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-16=-649/107, 2-3=-3202/358, 3-4=-2085/287, 4-5=-2027/282, 5-6=-2348/290
BOT CHORD 2-13=-477/2963, 12-13=-474/2973, 8-9=-216/1415
WEBS 3-13=0/360, 3-12=-1314/236, 4-12=-76/1214, 5-9=-966/194, 6-9=-106/1256,
5-12=-747/134, 6-8=-1833/249, 9-12=-295/2294

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior(1) 18-6-0 to 32-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=112, 1=106.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520201
2538913	A8	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:50 2020 Page 1

ID:EIQM2g7HuQ96lywO8PYUgzGYvu-RxdSmq?G9NLxBn3q6nailsVsAxtI7_VnqvKZ1UyM8jF

2-3-8	7-6-0	13-6-0	15-6-0	17-4-13	24-9-7	31-1-8	32-5-8
2-3-8	5-2-8	6-0-0	2-0-0	1-10-13	7-4-9	6-4-1	1-4-0

Scale = 1:60.0

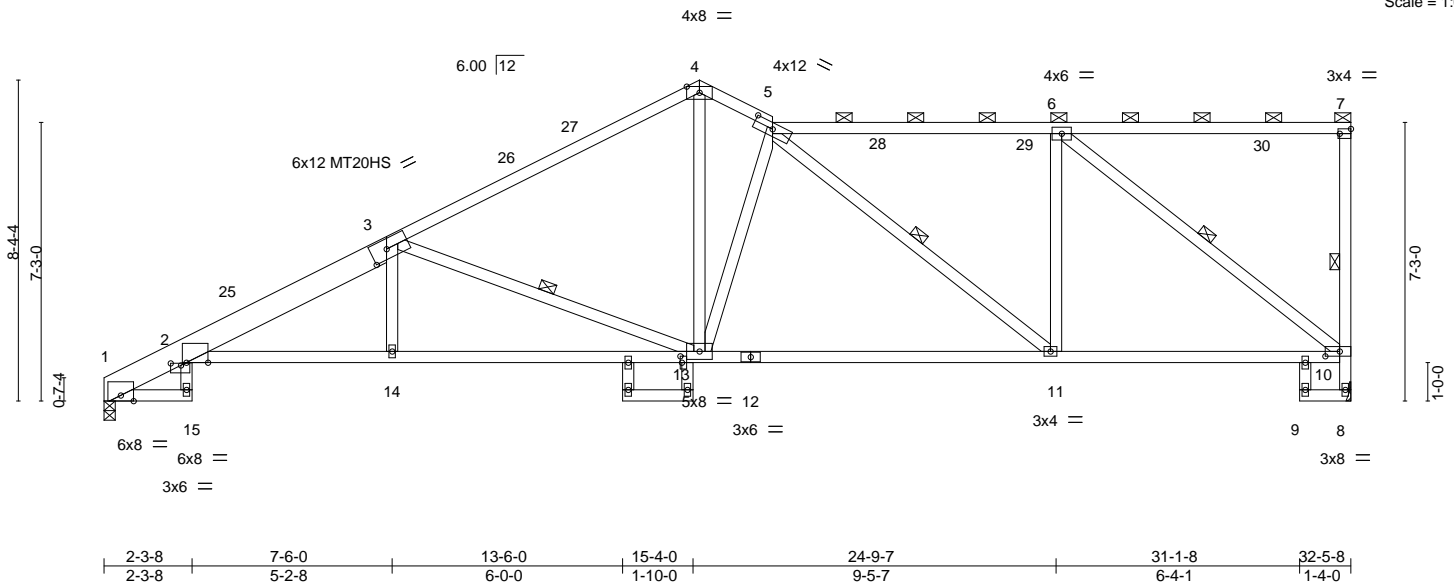


Plate Offsets (X,Y)-- [2:0-3-3,0-0-10], [2:0-6-12,0-0-0], [3:0-5-0,0-3-0], [5:0-6-0,0-1-14], [7:Edge,0-1-8], [10:0-4-8,0-1-8], [13:0-2-0,0-0-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.96	in (loc) l/defl L/d	MT20	197/144
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.92	Vert(LL) -0.22 14-24 >999 240	MT20HS	148/108
TCDL 10.0	Lumber DOL 1.15	WB 0.79	Vert(CT) -0.42 11-13 >915 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.25 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 162 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-3: 2x8 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-7.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 7-8, 3-13, 5-11, 6-10
OTHERS 2x4 SPF No.2	

REACTIONS. (size) 8=Mechanical, 1=0-3-8
Max Horz 1=261(LC 15)
Max Uplift 8=111(LC 16), 1=113(LC 16)
Max Grav 8=1482(LC 39), 1=1451(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-20=-672/96, 2-3=-3141/364, 3-4=-2039/263, 4-5=-1942/284, 5-6=-1494/228,
8-10=-1458/185, 7-10=-284/59
BOT CHORD 2-14=-607/2912, 13-14=-605/2920, 11-13=-374/1944, 10-11=-265/1492
WEBS 3-14=0/294, 3-13=-1303/274, 5-13=-951/158, 5-11=-584/140, 6-11=-6/596,
6-10=-1856/251, 4-13=-148/1412

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 15-6-0, Exterior(2E) 15-6-0 to 17-4-13, Interior(1) 17-4-13 to 32-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=111, 1=113.
 - 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.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheathing be applied directly to the bottom chord.



November 6, 2020

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	A8	Roof Special	1	1	I43520201
Job Reference (optional)					

NOTES-

14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520202
2538913	A9	Roof Special	1	1	Job Reference (optional)	

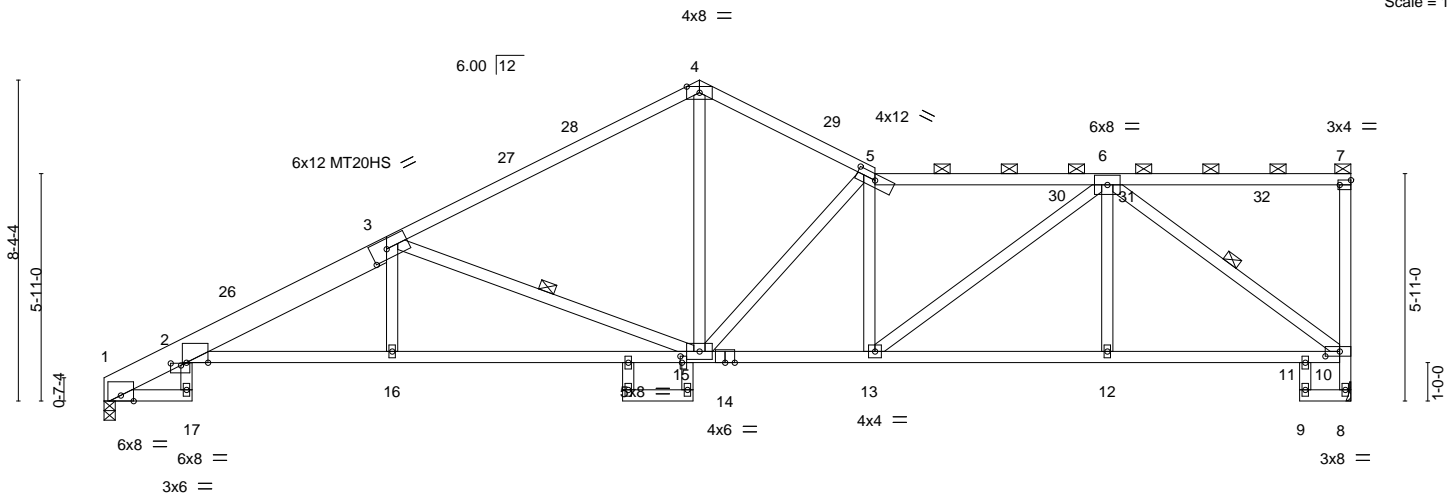
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:52 2020 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-OKICBW0Wg_bfQ4DCDCdANHaGZkR4bv24ICpg5NyM8jD

2-3-8	7-6-0	13-6-0	15-6-0	20-0-13	26-1-7	31-1-8	32-5-8
2-3-8	5-2-8	6-0-0	2-0-0	4-6-13	6-0-9	5-0-1	1-4-0

Scale = 1:60.0



Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	A9	Roof Special	1	1	I43520202
Job Reference (optional)					

- NOTES-
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520203
2538913	A10	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:19 2020 Page 1

ID:EIQM2g7HuQ96lylwO8PYUgzGYvu-r_FkGEdpSrRLz0BsnmXQYJja5RAFM29DiaKQRnyM8jk

2-3-8	7-6-0	15-6-0	22-8-13	27-4-7	31-1-8	32-5-8
2-3-8	5-2-8	8-0-0	7-2-13	4-7-9	3-9-1	1-4-0

Scale = 1:67.1

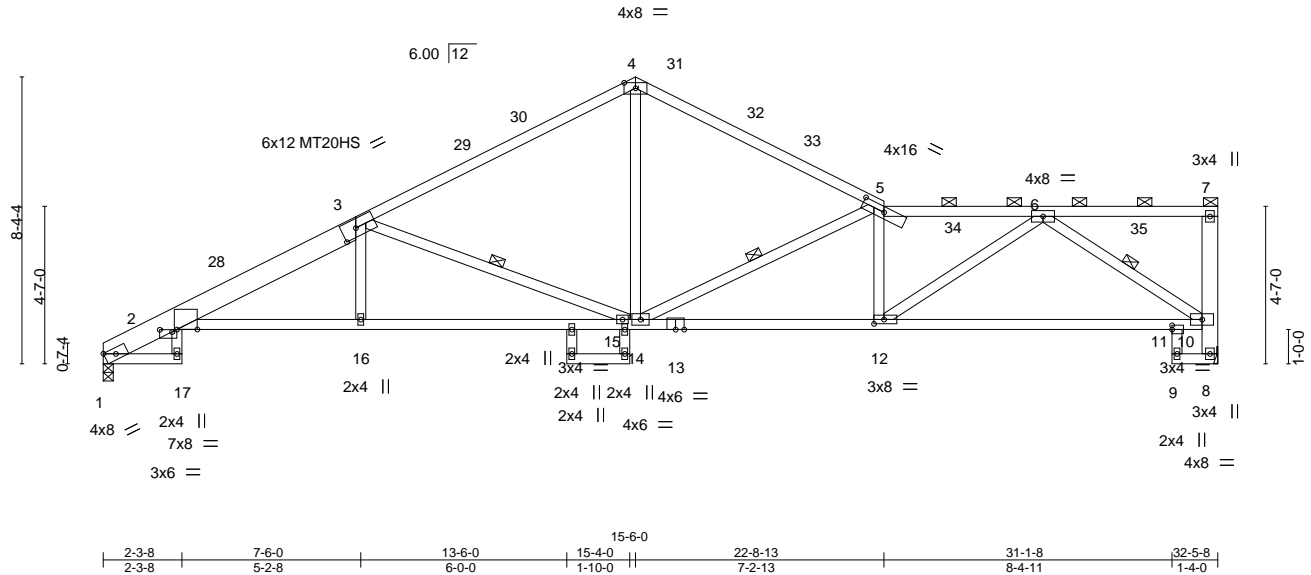


Plate Offsets (X,Y)-- [2:0-4-5,0-0-13], [2:0-7-2,0-0-1], [3:0-5-0,0-3-0], [5:0-8-0,0-1-14], [11:0-0-0,0-1-8], [12:0-3-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.96	Vert(LL)	-0.24	15-16	>999	240	197/144
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.95	Vert(CT)	-0.50	15-16	>771	180	148/108
TCDL 10.0	Lumber DOL 1.15	WB 0.45	Horz(CT)	0.32	8	n/a	n/a	
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 153 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-3: 2x8 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-2-2 max.): 5-7.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2 *Except* 7-8: 2x6 SPF No.2	WEBS 1 Row at midpt 3-15, 5-14, 6-10

REACTIONS. (size) 8=Mechanical, 1=0-3-8
Max Horz 1=219(LC 15)
Max Uplift 8=118(LC 16), 1=113(LC 16)
Max Grav 8=1444(LC 2), 1=1449(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-24=-646/111, 2-3=-3131/393, 3-4=-2035/301, 4-5=-2013/300, 5-6=-2978/362,
8-10=-1354/192
BOT CHORD 2-16=-510/2899, 15-16=-508/2908, 14-15=-266/1697, 12-14=-400/2947, 11-12=-278/1817,
10-11=-234/1925
WEBS 3-16=0/321, 3-15=-1293/258, 5-14=-1379/192, 5-12=-656/160, 6-12=-156/1408,
6-10=-2072/301, 4-14=-90/1183

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior(1) 18-6-0 to 32-2-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=118, 1=113.
 - 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.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520204
2538913	A11	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:22 2020 Page 1
ID:EIQM2g7HuQ96lylwO8PYUgzGYvu-GZxsuFfilmpvqTwRTu48AyL87eC6ZHpfOYY416yM8jh

2-3-8	7-6-0	15-6-0	20-5-7	25-4-13	31-1-8	32-5-8
2-3-8	5-2-8	8-0-0	4-11-7	4-11-7	5-8-11	1-4-0

Scale: 3/16"=1'

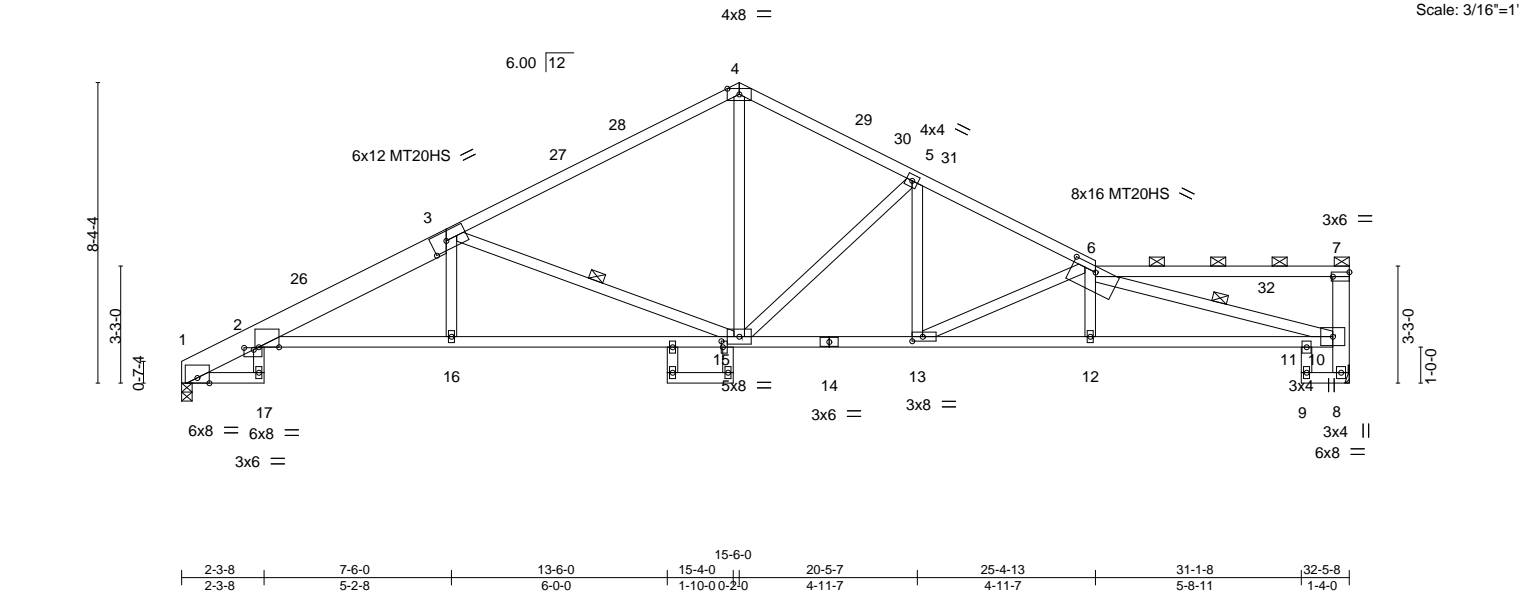


Plate Offsets (X,Y)-- [2:0-3-3,0-0-10], [2:0-6-12,0-0-0], [3:0-5-0,0-3-0], [6:0-8-0,0-1-14], [7:Edge,0-1-8], [13:0-3-8,0-1-8], [15:0-2-0,0-0-8]																
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc) l/defl L/d		PLATES		GRIP		
TCLL (roof)	25.0	Plate Grip DOL		1.15		TC	0.71	Vert(LL)	-0.30	12-13	>999	240	MT20	197/144		
Snow (Pf/Pg)	20.4/20.0	Lumber DOL		1.15		BC	0.94	Vert(CT)	-0.57	15-16	>675	180	MT20HS	148/108		
TCDL	10.0	Rep Stress Incr		YES		WB	0.97	Horz(CT)	0.33	8	n/a	n/a				
BCLL	0.0	Code IRC2018/TPI2014				Matrix-AS							Weight: 154 lb		FT = 20%	
BCDL	10.0															

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-3: 2x8 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD 2x4 SPF No.2 *Except* 10-14: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2 *Except* 7-8: 2x6 SPF No.2	WEBS 1 Row at midpt 3-15, 6-10
OTHERS 2x4 SPF No.2	

REACTIONS. (size) 8=Mechanical, 1=0-3-8
Max Horz 1=198(LC 15)
Max Uplift 8=118(LC 16), 1=115(LC 16)
Max Grav 8=1444(LC 2), 1=1447(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-21=633/110, 2-3=3137/387, 3-4=2021/297, 4-5=1949/312, 5-6=2767/351,
6-7=270/38, 8-10=1353/170, 7-10=330/65
BOT CHORD 2-16=442/2907, 15-16=439/2916, 13-15=309/2391, 12-13=472/3874, 11-12=477/3869,
10-11=461/3964
WEBS 3-16=0/318, 3-15=1317/247, 5-15=1007/163, 5-13=41/712, 6-13=1602/184,
6-10=3766/443, 4-15=121/1244

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior(1) 18-6-0 to 32-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=118, 1=115.

Continued on page 2



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	A11	Roof Special	1	1	I43520204
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:22 2020 Page 2
ID:EIQM2g7HuQ96lylwO8PYUgzGYvu-GZxsuFfilmpvqTwRTu48AyL87eC6ZHpfOYY416yM8jh

- NOTES-**
- 12) 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.
 - 13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520205
2538913	A12	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:24 2020 Page 1

ID:4rXHhD3_rnBCgQSIY2gdJuzGwv6-Cx2dJxgyGO3d3n4qaJ7cFNQXUSsC1Euyss1B6_yM8jf

-Q-11-0	7-9-3	13-0-8	15-6-0	18-11-0	23-5-15	28-0-13	31-1-8	32-5-8
0-11-0	7-9-3	5-3-5	2-5-8	3-5-0	4-6-15	4-6-15	3-0-11	1-4-0

Scale = 1:59.4

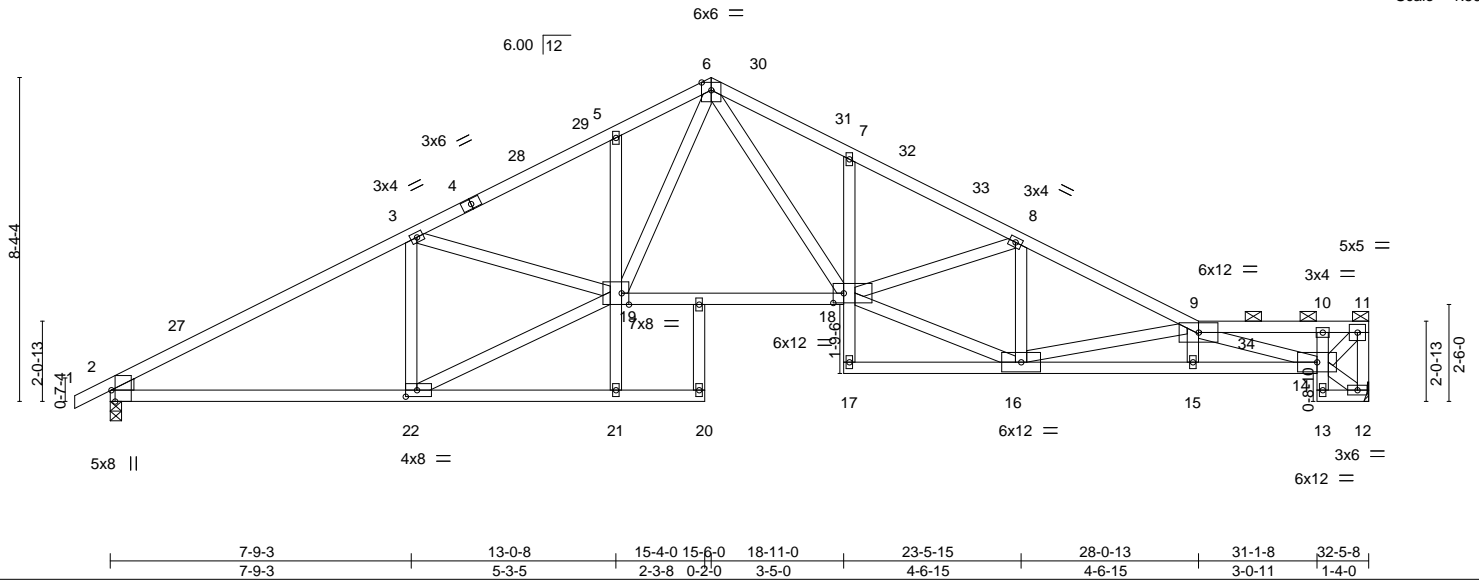


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [18:0-3-4,0-3-0], [19:0-2-4,Edge], [22:0-3-8,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.53	Vert(LL)	-0.33 18-19	>999	240	MT20	197/144
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.96	Vert(CT)	-0.63 18-19	>617	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.80	Horz(CT)	0.32 12	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 158 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x4 SPF No.2 *Except*	2-0-0 oc purlins (4-5-4 max.): 9-11.
14-17: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	
WEDGE	
Left: 2x4 SPF No.2	

REACTIONS. (size) 12=Mechanical, 2=0-3-8
Max Horz 2=186(LC 15)
Max Uplift 12=-110(LC 16), 2=-136(LC 16)
Max Grav 12=1472(LC 2), 2=1543(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2529/281, 3-5=-3087/369, 5-6=-3026/427, 6-7=-3515/477, 7-8=-3527/421,
8-9=-3257/363, 9-10=-1613/175, 10-11=-1331/143, 11-12=-1382/164
BOT CHORD 2-22=-252/2157, 18-19=-181/2168, 7-18=-321/113, 15-16=-542/4930, 14-15=-549/4936
WEBS 3-22=-873/163, 16-18=-319/3042, 8-18=0/289, 8-16=-583/109, 9-16=-2093/234,
9-14=-3499/363, 11-14=-220/1861, 5-19=-272/107, 19-22=-278/2352, 3-19=0/587,
6-19=-175/1316, 6-18=-205/1774

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior(1) 18-6-0 to 32-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=110, 2=136.
- 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.

Continued on page 2



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	A12	Roof Special	1	1	I43520205
Job Reference (optional)					

NOTES-

- 12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520206
2538913	A13	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:27 2020 Page 1

ID:EIQM2g7HuQ96IylwO8PYUgzGYvu-cWkxzjqZJSCwEoPFSgJt?293f78EIJOYqGrJyM8jc

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0-11-0

15-6-0
15-6-0

30-5-13
14-11-13

Scale = 1:54.2

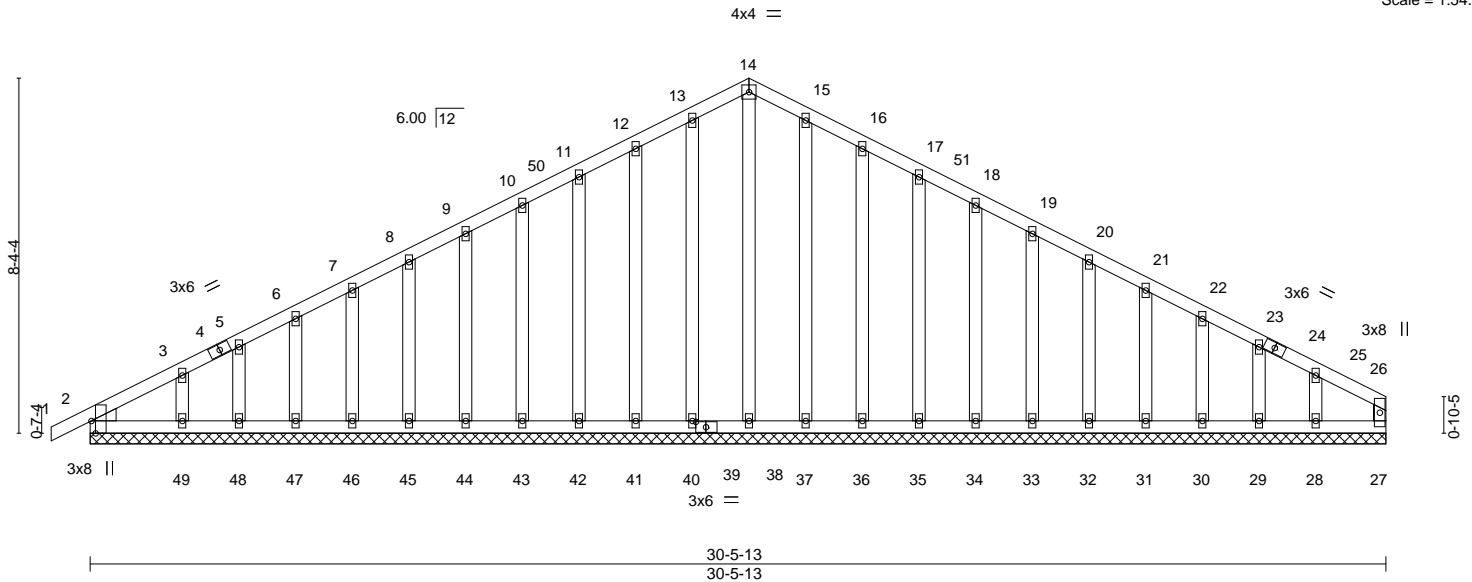


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [39:0-2-14,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.06	Vert(LL) -0.00	1	n/r	120	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT) 0.00	1	n/r	120		
TCDL 10.0	Lumber DOL 1.15	WB 0.18	Horz(CT) 0.00	27	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 180 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

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

REACTIONS. All bearings 30-5-13.
(lb) - Max Horz 2=166(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 2, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28
Max Grav All reactions 250 lb or less at joint(s) 27, 2, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 13-14=-106/252, 14-15=-106/252

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-2-0, Exterior(2N) 2-2-0 to 15-6-0, Corner(3R) 15-6-0 to 18-6-0, Exterior(2N) 18-6-0 to 30-4-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28.
- N/A
- 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.



November 6, 2020

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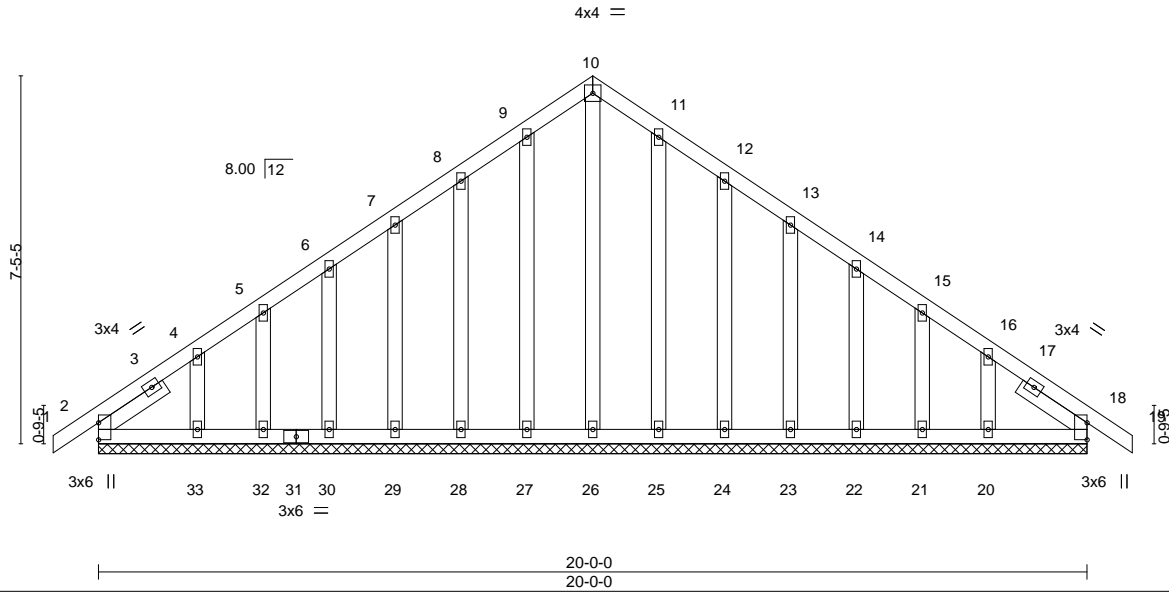
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	C1	Common Supported Gable	1	1	I43520207

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:54 2020 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-KjszcC2mCcrNgOMbLcfeTifnMYLn3ynNIWInAFyM8jB

-0-11-0 10-0-0 20-0-0 20-11-0
0-11-0 10-0-0 10-0-0 0-11-0



Scale = 1:46.6

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.05	in (loc) l/defl L/d	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 18 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.13	Vert(CT) -0.00 18 n/r 120		
BCLL 0.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 18 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 116 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-7-8, Right 2x4 SPF No.2 1-7-8

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 20-0-0.
(lb) - Max Horz 2=155(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 21, 20
Max Grav All reactions 250 lb or less at joint(s) 2, 26, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 21, 20, 18

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 20-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 21, 20.
- 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.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520208
2538913	C2	Common	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:56 2020 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-G5_j1t31kD55viW_S1h6Y7I40LsuXr1fDqnuE8ym8j9

0-11-0 5-1-12 10-0-0 14-10-4 20-0-0 20-11-0
0-11-0 5-1-12 4-10-4 4-10-4 5-1-12 0-11-0

4x6 =

Scale = 1:46.0

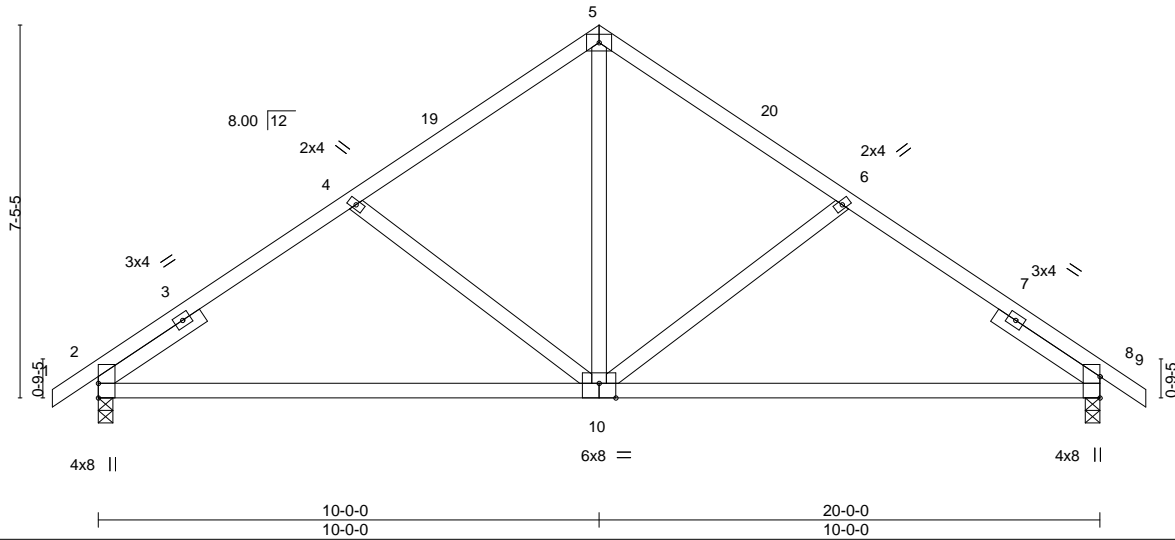


Plate Offsets (X,Y)-- [10:0-4-0,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15		TC 0.23	Vert(LL)	-0.13 10-13	>999	240	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Lumber DOL 1.15		BC 0.69	Vert(CT)	-0.27 10-13	>893	180		
TCDL 10.0	Rep Stress Incr YES		WB 0.21	Horz(CT)	0.02 8	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-AS						
BCDL 10.0								Weight: 80 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 8=0-3-8
Max Horz 2=155(LC 13)
Max Uplift 2=101(LC 14), 8=101(LC 14)
Max Grav 2=964(LC 2), 8=964(LC 2)

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

TOP CHORD 2-4=-1008/171, 4-5=-897/166, 5-6=-897/166, 6-8=-1008/171
BOT CHORD 2-10=-55/892, 8-10=-58/892
WEBS 5-10=-66/545, 6-10=-312/129, 4-10=-312/129

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=101, 8=101.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 6, 2020

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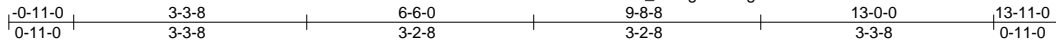


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520209
2538913	C3	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:57 2020 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-klY5ED4fVXDxXr5A0ICL4KHGaIK2GLbpSUXRnayM8j8



3x6 =
4x6 ||

Scale = 1:32.6

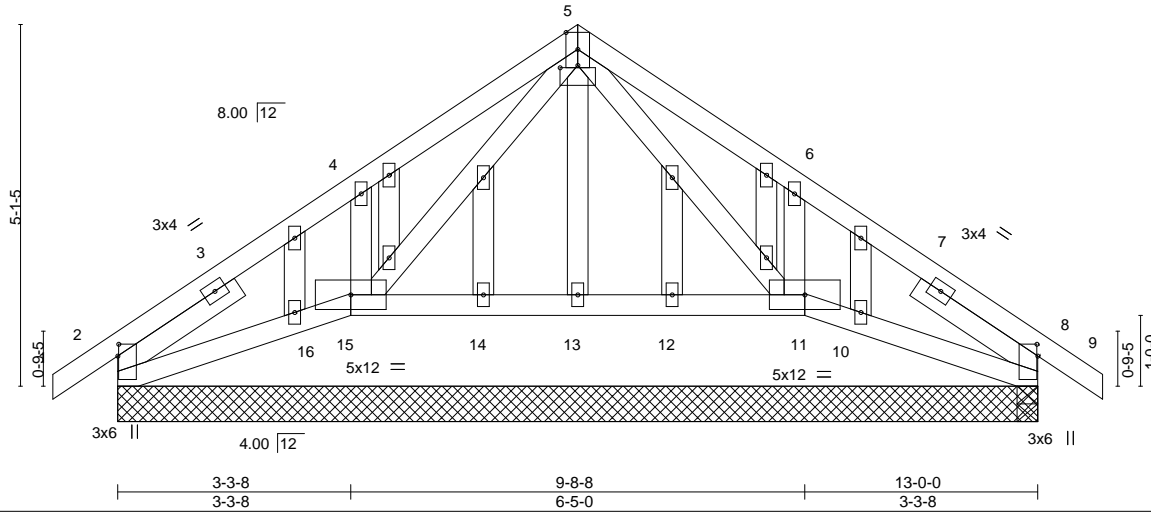


Plate Offsets (X,Y)-- [2:0-2-0,0-0-2], [5:0-3-0,0-0-6], [6:0-0-0,0-0-0], [8:0-0-0,0-0-0], [8:0-2-0,0-0-2], [21:0-0-0,0-0-0], [22:0-0-0,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.12	Vert(LL)	-0.01	15	>999	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.18	Vert(CT)	-0.01	15	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Horz(CT)	0.01	8	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 69 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-1-3, Right 2x4 SPF No.2 2-1-3

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

REACTIONS. All bearings 13-0-0.
(lb) - Max Horz 2=105(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 11, 8, 13, 16
Max Grav All reactions 250 lb or less at joint(s) 8, 8, 13, 14, 16, 12, 10 except 2=279(LC 2), 11=366(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-336/97, 4-5=-313/210
BOT CHORD 2-16=-34/260
WEBS 6-11=-257/160

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-12, Interior(1) 9-6-12 to 13-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11, 8, 13, 16.
- 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.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520210
2538913	C4	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:49:59 2020 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-gggsv6v18Ufm9FY7AFpAlNa6ZylkD06vo0YrTyM8j6



4x6 ||

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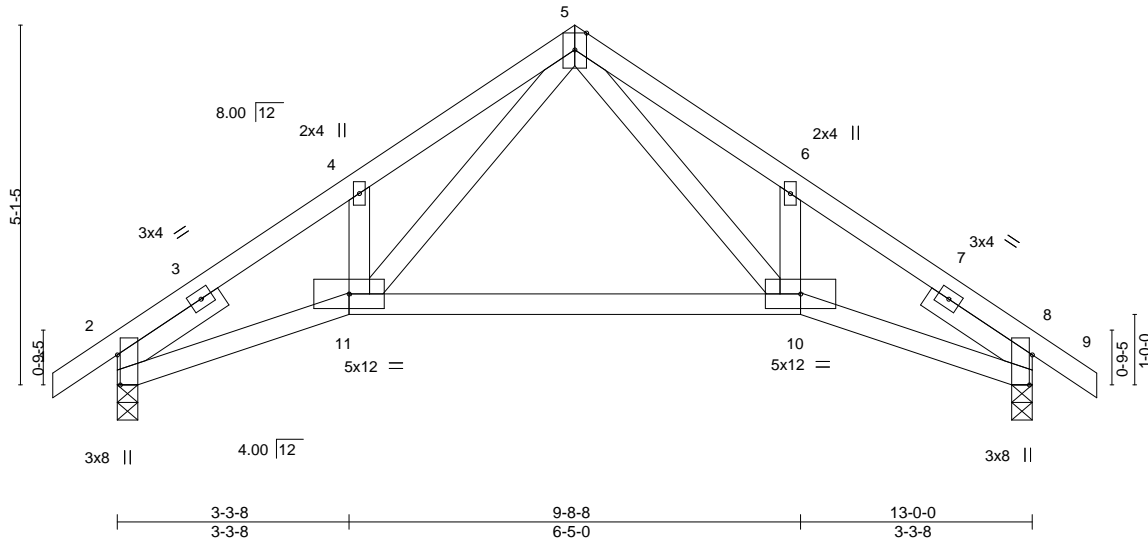


Plate Offsets (X,Y)-- [2:0-5-2,Edge], [6:0-0-0,0-0-0], [8:0-0-0,0-0-0], [8:0-5-2,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.24	Vert(LL)	-0.07 10-11	>999	240	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.39	Vert(CT)	-0.17 10-11	>921	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.13	Horz(CT)	0.06 8	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 54 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-10-0, Right 2x4 SPF No.2 1-10-0

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

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=105(LC 13)
Max Uplift 2=-75(LC 14), 8=-75(LC 14)
Max Grav 2=649(LC 2), 8=649(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1087/171, 4-5=-1032/273, 5-6=-1033/279, 6-8=-1087/175
BOT CHORD 2-11=-67/886, 10-11=0/494, 8-10=-78/876
WEBS 5-11=-144/570, 5-10=-148/537

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-12, Interior(1) 9-6-12 to 13-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

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Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	D1	Hip Girder	1	1	I43520211
Job Reference (optional)					

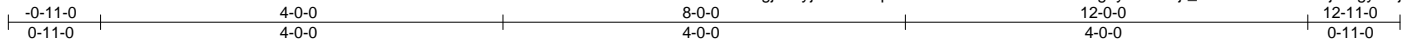
LOAD CASE(S)
Standard
Concentrated Loads (lb)
Vert: 10=1(B) 9=0(B) 8=1(B) 25=0(B) 26=0(B)

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520212
2538913	D2	Hip	1	1	Job Reference (optional)	

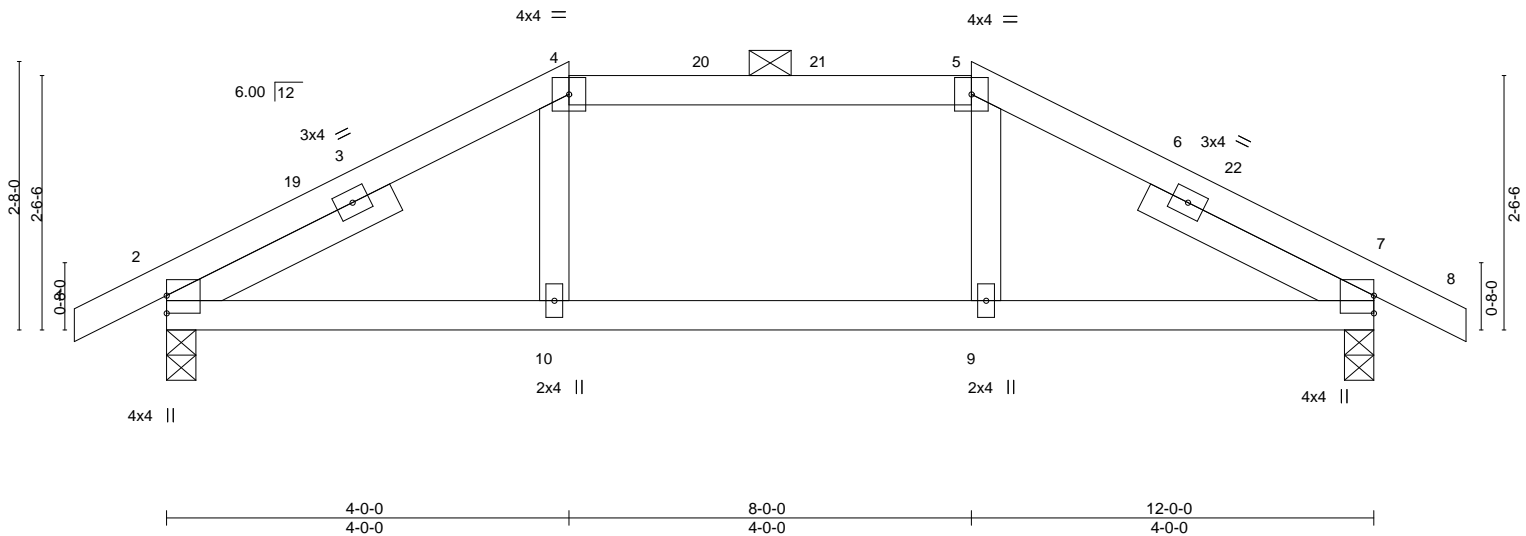
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:04 2020 Page 1

ID:2gjJ0LyjzZmYPRpPutoMbQzFwGX-1eTKic92sg6ytw7Wwj_r_to4Q6aizPWmr34jJWgyM8j1



Scale = 1:22.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.04	MT20	197/144		
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.05				
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.02				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS							
BCDL	10.0										
								Weight: 41 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
 Max Horz 2=46(LC 15)
 Max Uplift 2=-72(LC 16), 7=-72(LC 16)
 Max Grav 2=608(LC 39), 7=608(LC 39)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-687/235, 4-5=-643/234, 5-7=-687/235
 BOT CHORD 2-10=-126/648, 9-10=-127/643, 7-9=-125/648

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 4-0-0, Exterior(2E) 4-0-0 to 8-0-0, Exterior(2R) 8-0-0 to 12-0-0, Interior(1) 12-0-0 to 12-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 6, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520213
2538913	D3	Common	4	1		

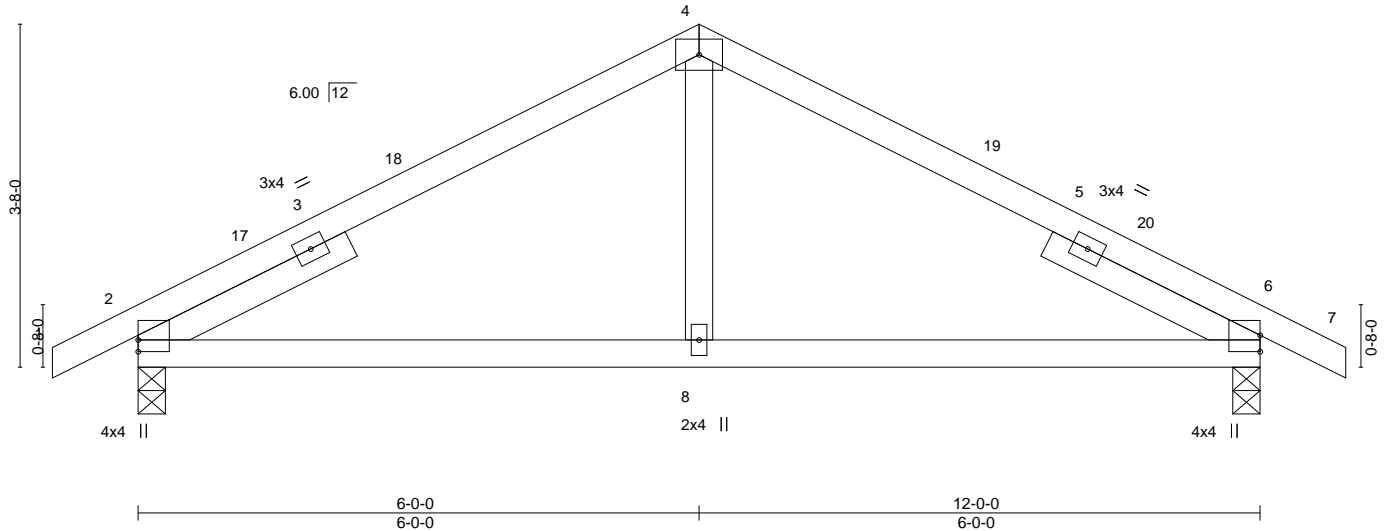
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:05 2020 Page 1
ID:2gjJ0LyjzZmYPRpPutoMbQzFwGX-Vq17wyAgc_EpU4iiUQMDP0da0_137zg_HkTs36yM8j0

-0-11-0 6-0-0 12-0-0 12-11-0
0-11-0 6-0-0 6-0-0 0-11-0

4x6 =

Scale = 1:24.6



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	in	(loc)	l/defl	L/d	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.30	Vert(LL)	-0.04	8-15	>999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Vert(CT)	-0.07	8-15	>999		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS		Horz(CT)	0.02	2	n/a		
BCDL	10.0									Weight: 41 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=66(LC 15)
Max Uplift 2=-72(LC 16), 6=-72(LC 16)
Max Grav 2=604(LC 2), 6=604(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-620/237, 4-6=-620/237
BOT CHORD 2-8=-95/547, 6-8=-95/547

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2538913	Truss GR1	Truss Type Roof Special Girder	Qty 1	Ply 2	Summit/3 Woodside Job Reference (optional)	I43520214
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Builders First Source, Valley Center, KS 67147

8,240 s Mar 9 2020 MiTek Industries, Inc. Fri Nov 6 09:46:59 2020 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-UIKJvPBfNAKJd_zCHIV5roRv2kcirAdxo7GTqzyLxaA

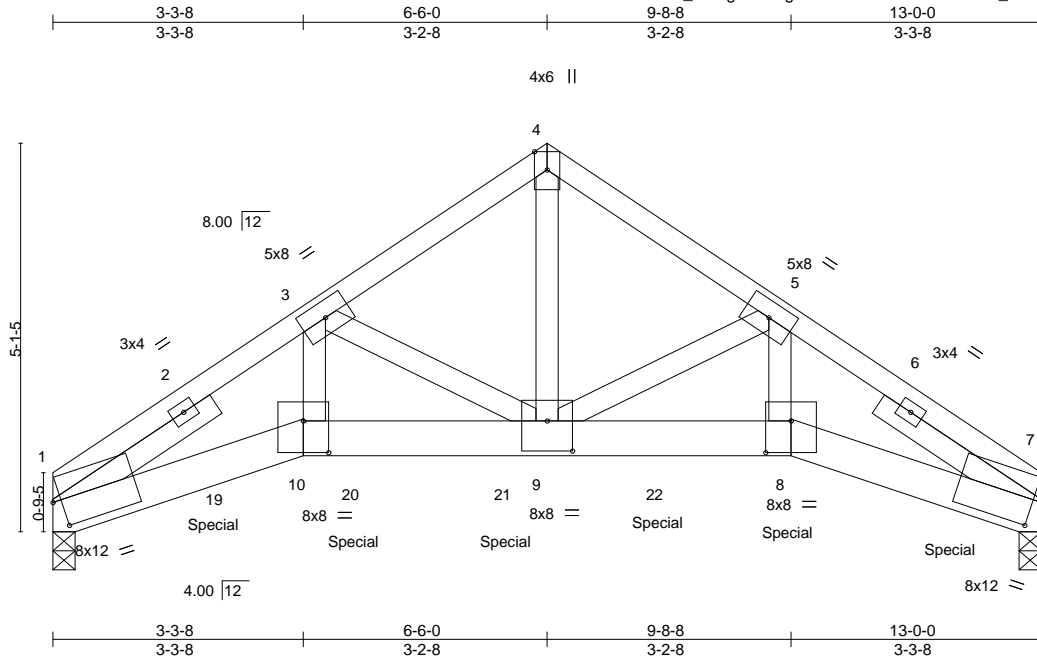


Plate Offsets (X,Y)-- [1:0-1-5,0-4-4], [5:0-0-0,0-0-0], [7:0-1-3,0-4-12], [7:0-0-0,0-0-0], [8:0-4-0,0-5-0], [9:0-4-0,0-4-12], [10:0-4-0,0-5-0]						
LOADING (psf)		SPACING	2-0-0	CSI	DEFL.	PLATES
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC 0.75	in (loc) l/defl L/d	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC 0.52	Vert(LL) -0.11 8-9 >999 240	GRIP 197/144
TCDL	10.0	Rep Stress Incr	NO	WB 0.71	Vert(CT) -0.20 8-9 >785 180	
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MS	Horz(CT) 0.14 7 n/a n/a	
BCDL	10.0					Weight: 124 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-11 oc purlins.
BOT CHORD 2x6 SPF 2100F 1.8E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	
SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0	

REACTIONS. (size) 1=0-3-8, 7=0-3-8
Max Horz 1=-92(LC 8)
Max Uplift 1=-386(LC 10), 7=-438(LC 10)
Max Grav 1=4395(LC 2), 7=4980(LC 2)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5347/479, 2-3=-9102/814, 3-4=-5667/531, 4-5=-5666/531, 5-6=-9319/833, 6-7=-5497/492
BOT CHORD 1-19=-620/7353, 10-19=-655/7791, 10-20=-594/7080, 20-21=-594/7080, 9-21=-594/7080, 9-22=-608/7240, 8-22=-608/7240, 7-8=-660/7818
WEBS 3-10=-277/3403, 3-9=-2676/282, 4-9=-518/5813, 5-9=-2857/298, 5-8=-295/3615

- NOTES-**
- 2-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected with 10d (0.131"x3") nails as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Web connected with 10d (0.148"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 1, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 386 lb uplift at joint 1 and 438 lb uplift at joint 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1367 lb down and 133 lb up at 2-0-0, 1367 lb down and 133 lb up at 4-0-0, 1367 lb down and 134 lb up at 6-0-0, 1367 lb down and 134 lb up at 8-0-0, and 1367 lb down and 133 lb up at 9-8-8, and 1367 lb down and 132 lb up at 12-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



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Continued on page 2

LOAD CASE(S)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	GR1	Roof Special Girder	1	2	I43520214
					Job Reference (optional)

Builders First Source, Valley Center, KS 67147

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Nov 6 09:47:00 2020 Page 2
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LOAD CASE(S)

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-51, 4-7=-51, 10-11=-20, 8-10=-20, 8-15=-20
Concentrated Loads (lb)
Vert: 8=-1187(B) 17=-1286(B) 19=-1241(B) 20=-1121(B) 21=-1150(B) 22=-1132(B)
- 2) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-7=-70, 10-11=-20, 8-10=-20, 8-15=-20
Concentrated Loads (lb)
Vert: 8=-1367(B) 17=-1367(B) 19=-1367(B) 20=-1367(B) 21=-1367(B) 22=-1367(B)
- 3) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-58, 4-7=-58, 10-11=-20, 8-10=-20, 8-15=-20
Concentrated Loads (lb)
Vert: 8=-1175(B) 17=-1175(B) 19=-1175(B) 20=-1175(B) 21=-1175(B) 22=-1175(B)
- 4) Dead + 0.75 Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-43, 4-7=-43, 10-11=-20, 8-10=-20, 8-15=-20
Concentrated Loads (lb)
Vert: 8=-1039(B) 17=-1114(B) 19=-1080(B) 20=-990(B) 21=-1011(B) 22=-998(B)
- 5) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-20, 4-7=-20, 10-11=-40, 8-10=-40, 8-15=-40
Concentrated Loads (lb)
Vert: 8=-885(B) 17=-885(B) 19=-885(B) 20=-885(B) 21=-885(B) 22=-885(B)
- 6) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-2, 4-7=8, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 1-4=-10, 4-7=20
Concentrated Loads (lb)
Vert: 8=121(B) 17=121(B) 19=121(B) 20=122(B) 21=122(B) 22=122(B)
- 7) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=8, 4-7=-2, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 1-4=-20, 4-7=10
Concentrated Loads (lb)
Vert: 8=121(B) 17=121(B) 19=121(B) 20=122(B) 21=122(B) 22=122(B)
- 8) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-32, 4-7=-10, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=12, 4-7=10
Concentrated Loads (lb)
Vert: 8=133(B) 17=132(B) 19=133(B) 20=133(B) 21=134(B) 22=134(B)
- 9) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-10, 4-7=-32, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=-10, 4-7=-12
Concentrated Loads (lb)
Vert: 8=133(B) 17=132(B) 19=133(B) 20=133(B) 21=134(B) 22=134(B)
- 10) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=16, 4-7=16, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 1-4=-28, 4-7=28
Concentrated Loads (lb)
Vert: 8=121(B) 17=121(B) 19=121(B) 20=122(B) 21=122(B) 22=122(B)
- 11) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=1, 4-7=1, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 1-4=-13, 4-7=13
Concentrated Loads (lb)
Vert: 8=121(B) 17=121(B) 19=121(B) 20=122(B) 21=122(B) 22=122(B)
- 12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-21, 4-7=-21, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
Concentrated Loads (lb)
Vert: 8=133(B) 17=132(B) 19=133(B) 20=133(B) 21=134(B) 22=134(B)
- 13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-21, 4-7=-21, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
Concentrated Loads (lb)
Vert: 8=133(B) 17=132(B) 19=133(B) 20=133(B) 21=134(B) 22=134(B)
- 14) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-4=-20, 4-7=-20, 10-11=-20, 8-10=-20, 8-15=-20

Continued on page 3

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	GR1	Roof Special Girder	1	2	143520214
					Job Reference (optional)

Builders First Source, Valley Center, KS 67147

8,240 s Mar 9 2020 MiTek Industries, Inc. Fri Nov 6 09:47:00 2020 Page 3
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-yUth6iC18TsAF8YOr?0KO0z4o8yxadt41n?0NQyLxa9

LOAD CASE(S)

- Concentrated Loads (lb)
Vert: 8=-597(B) 17=-597(B) 19=-597(B) 20=-597(B) 21=-597(B) 22=-597(B)
- 15) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-52, 4-7=-36, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=9, 4-7=7
Concentrated Loads (lb)
Vert: 8=26(B) 17=26(B) 19=26(B) 20=26(B) 21=27(B) 22=27(B)
- 16) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-36, 4-7=-52, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=-7, 4-7=-9
Concentrated Loads (lb)
Vert: 8=26(B) 17=26(B) 19=26(B) 20=26(B) 21=27(B) 22=27(B)
- 17) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-44, 4-7=-44, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
Concentrated Loads (lb)
Vert: 8=26(B) 17=26(B) 19=26(B) 20=26(B) 21=27(B) 22=27(B)
- 18) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-44, 4-7=-44, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
Concentrated Loads (lb)
Vert: 8=26(B) 17=26(B) 19=26(B) 20=26(B) 21=27(B) 22=27(B)
- 19) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-66, 4-7=-50, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=9, 4-7=7
Concentrated Loads (lb)
Vert: 8=26(B) 17=26(B) 19=26(B) 20=26(B) 21=27(B) 22=27(B)
- 20) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-50, 4-7=-66, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=-7, 4-7=-9
Concentrated Loads (lb)
Vert: 8=26(B) 17=26(B) 19=26(B) 20=26(B) 21=27(B) 22=27(B)
- 21) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-58, 4-7=-58, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
Concentrated Loads (lb)
Vert: 8=26(B) 17=26(B) 19=26(B) 20=26(B) 21=27(B) 22=27(B)
- 22) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-58, 4-7=-58, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
Concentrated Loads (lb)
Vert: 8=26(B) 17=26(B) 19=26(B) 20=26(B) 21=27(B) 22=27(B)
- 23) Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-17, 4-7=-12, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 1-4=5
Concentrated Loads (lb)
Vert: 8=40(B) 17=39(B) 19=40(B) 20=40(B) 21=41(B) 22=41(B)
- 24) Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-12, 4-7=-17, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 4-7=5
Concentrated Loads (lb)
Vert: 8=40(B) 17=39(B) 19=40(B) 20=40(B) 21=41(B) 22=41(B)
- 25) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-7=-20, 10-11=-20, 8-10=-20, 8-15=-20
Concentrated Loads (lb)
Vert: 8=-1367(B) 17=-1367(B) 19=-1367(B) 20=-1367(B) 21=-1367(B) 22=-1367(B)
- 26) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-20, 4-7=-70, 10-11=-20, 8-10=-20, 8-15=-20
Concentrated Loads (lb)
Vert: 8=-1367(B) 17=-1367(B) 19=-1367(B) 20=-1367(B) 21=-1367(B) 22=-1367(B)
- 27) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-58, 4-7=-20, 10-11=-20, 8-10=-20, 8-15=-20

Continued on page 4

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	GR1	Roof Special Girder	1	2	I43520214
Builders First Source, Valley Center, KS 67147					Job Reference (optional)

8,240 s Mar 9 2020 MiTek Industries, Inc. Fri Nov 6 09:47:00 2020 Page 4
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-yUth6iCl8TsAF8YOr?0KO0z4o8yxadt41n?0NQyLxa9

LOAD CASE(S)

- Concentrated Loads (lb)
Vert: 8=-1175(B) 17=-1175(B) 19=-1175(B) 20=-1175(B) 21=-1175(B) 22=-1175(B)
- 28) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-20, 4-7=-58, 10-11=-20, 8-10=-20, 8-15=-20
Concentrated Loads (lb)
Vert: 8=-1175(B) 17=-1175(B) 19=-1175(B) 20=-1175(B) 21=-1175(B) 22=-1175(B)
- 29) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-2, 4-7=8, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 1-4=-10, 4-7=20
Concentrated Loads (lb)
Vert: 8=-641(B) 17=-658(B) 19=-649(B) 20=-639(B) 21=-642(B) 22=-640(B)
- 30) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=8, 4-7=-2, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 1-4=-20, 4-7=10
Concentrated Loads (lb)
Vert: 8=-641(B) 17=-658(B) 19=-649(B) 20=-639(B) 21=-642(B) 22=-640(B)
- 31) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-32, 4-7=-10, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=12, 4-7=10
Concentrated Loads (lb)
Vert: 8=-630(B) 17=-646(B) 19=-638(B) 20=-628(B) 21=-631(B) 22=-628(B)
- 32) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-10, 4-7=-32, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=-10, 4-7=-12
Concentrated Loads (lb)
Vert: 8=-630(B) 17=-646(B) 19=-638(B) 20=-628(B) 21=-631(B) 22=-628(B)
- 33) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=16, 4-7=16, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 1-4=-28, 4-7=28
Concentrated Loads (lb)
Vert: 8=-641(B) 17=-658(B) 19=-649(B) 20=-639(B) 21=-642(B) 22=-640(B)
- 34) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=1, 4-7=1, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 1-4=-13, 4-7=13
Concentrated Loads (lb)
Vert: 8=-641(B) 17=-658(B) 19=-649(B) 20=-639(B) 21=-642(B) 22=-640(B)
- 35) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-21, 4-7=-21, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
Concentrated Loads (lb)
Vert: 8=-630(B) 17=-646(B) 19=-638(B) 20=-628(B) 21=-631(B) 22=-628(B)
- 36) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-21, 4-7=-21, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
Concentrated Loads (lb)
Vert: 8=-630(B) 17=-646(B) 19=-638(B) 20=-628(B) 21=-631(B) 22=-628(B)
- 37) Reversal: Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-52, 4-7=-36, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=9, 4-7=7
Concentrated Loads (lb)
Vert: 8=-953(B) 17=-1022(B) 19=-990(B) 20=-915(B) 21=-933(B) 22=-921(B)
- 38) Reversal: Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-36, 4-7=-52, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=-7, 4-7=-9
Concentrated Loads (lb)
Vert: 8=-953(B) 17=-1022(B) 19=-990(B) 20=-915(B) 21=-933(B) 22=-921(B)
- 39) Reversal: Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-44, 4-7=-44, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
Concentrated Loads (lb)
Vert: 8=-953(B) 17=-1022(B) 19=-990(B) 20=-915(B) 21=-933(B) 22=-921(B)
- 40) Reversal: Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60

Continued on page 5

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	GR1	Roof Special Girder	1	2	I43520214
					Job Reference (optional)

Builders First Source, Valley Center, KS 67147

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Nov 6 09:47:00 2020 Page 5
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-yUth6iCl8TsAF8YOr?0KO0z4o8yxadt41n?0NQyLxa9

LOAD CASE(S)

- Uniform Loads (plf)
Vert: 1-4=-44, 4-7=-44, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
- Concentrated Loads (lb)
Vert: 8=-953(B) 17=-1022(B) 19=-990(B) 20=-915(B) 21=-933(B) 22=-921(B)
- 41) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-4=-66, 4-7=-50, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=9, 4-7=7
- Concentrated Loads (lb)
Vert: 8=-1055(B) 17=-1067(B) 19=-1061(B) 20=-1053(B) 21=-1056(B) 22=-1054(B)
- 42) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-4=-50, 4-7=-66, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=-7, 4-7=-9
- Concentrated Loads (lb)
Vert: 8=-1055(B) 17=-1067(B) 19=-1061(B) 20=-1053(B) 21=-1056(B) 22=-1054(B)
- 43) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-4=-58, 4-7=-58, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
- Concentrated Loads (lb)
Vert: 8=-1055(B) 17=-1067(B) 19=-1061(B) 20=-1053(B) 21=-1056(B) 22=-1054(B)
- 44) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-4=-58, 4-7=-58, 10-11=-20, 8-10=-20, 8-15=-20
Horz: 1-4=1, 4-7=-1
- Concentrated Loads (lb)
Vert: 8=-1055(B) 17=-1067(B) 19=-1061(B) 20=-1053(B) 21=-1056(B) 22=-1054(B)
- 45) Reversal: Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-4=-17, 4-7=-12, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 1-4=5
- Concentrated Loads (lb)
Vert: 8=-560(B) 17=-576(B) 19=-568(B) 20=-558(B) 21=-561(B) 22=-558(B)
- 46) Reversal: Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-4=-12, 4-7=-17, 10-11=-8, 8-10=-8, 8-15=-8
Horz: 4-7=-5
- Concentrated Loads (lb)
Vert: 8=-560(B) 17=-576(B) 19=-568(B) 20=-558(B) 21=-561(B) 22=-558(B)

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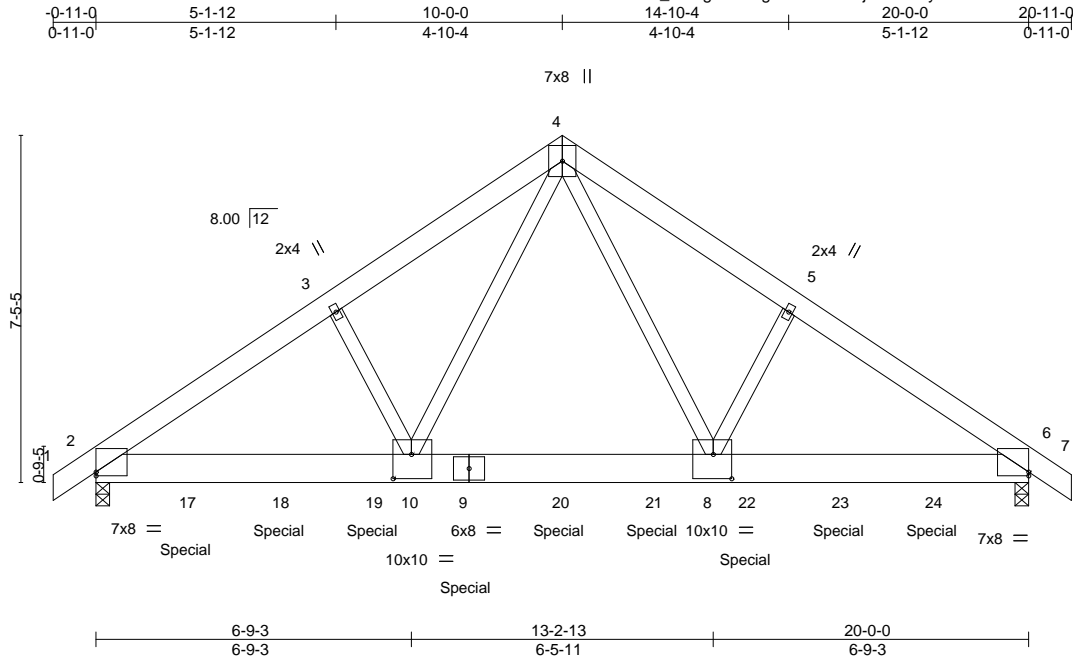


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2538913	Truss GR2	Truss Type Common Girder	Qty 1	Ply 2	Summit/3 Woodside Job Reference (optional)	I43520215
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Builders First Source, Valley Center, KS 67147

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Nov 6 09:47:22 2020 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-JJC0kHT5yEd2tWDD7dPUHfuxD?TbkaSK4CKA78yLxZp



Scale = 1:49.4

Plate Offsets (X,Y)-- [2:Edge,0-1-0], [6:0-0-0,0-1-0], [8:0-4-12,0-6-4], [10:0-4-12,0-6-4]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	-0.11	8-10	>999	240	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.21	8-10	>999	180		
TCDL 10.0	Rep Stress Incr	NO	WB 0.70	Horz(CT)	0.03	6	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-MS							
BCDL 10.0									Weight: 268 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-8-1 oc purlins.
BOT CHORD 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-155(LC 8)
Max Uplift 2=-656(LC 10), 6=-658(LC 10)
Max Grav 2=7430(LC 2), 6=7432(LC 2)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-9907/878, 3-4=-9766/927, 4-5=-9783/923, 5-6=-9924/874, 6-7=0/36
BOT CHORD 2-17=-644/8197, 17-18=-644/8197, 18-19=-644/8197, 10-19=-644/8197, 9-10=-372/5658, 9-20=-372/5658,
20-21=-372/5658, 8-21=-372/5658, 8-22=-641/8210, 22-23=-641/8210, 23-24=-641/8210, 6-24=-641/8210
WEBS 4-8=-510/5743, 5-8=-297/139, 4-10=-518/5711, 3-10=-297/138

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 656 lb uplift at joint 2 and 658 lb uplift at joint 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1452 lb down and 130 lb up at 2-0-0, 1424 lb down and 138 lb up at 4-0-0, 1424 lb down and 138 lb up at 6-0-0, 1428 lb down and 140 lb up at 8-0-0, 1462 lb down and 131 lb up at 10-0-0, 1444 lb down and 133 lb up at 12-0-0, 1444 lb down and 132 lb up at 14-0-0, and 1433 lb down and 138 lb up at 16-0-0, and 1433 lb down and 138 lb up at 18-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



November 6, 2020

Continued on page 2

LOAD CASE(S)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520215
2538913	GR2	Common Girder	1	2	Job Reference (optional)	

Builders First Source, Valley Center, KS 67147

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Nov 6 09:47:22 2020 Page 2
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-JjC0kHT5yEd2tWDd7dPUHfuxD?TbkaSK4CKA78yLxZp

LOAD CASE(S)

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-51, 4-7=-51, 11-14=-20
Concentrated Loads (lb)
Vert: 9=-1349(F) 17=-1273(F) 18=-1177(F) 19=-1241(F) 20=-1462(F) 21=-1366(F) 22=-1263(F) 23=-1254(F) 24=-1254(F)
- 2) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-7=-70, 11-14=-20
Concentrated Loads (lb)
Vert: 9=-1428(F) 17=-1452(F) 18=-1424(F) 19=-1424(F) 20=-1451(F) 21=-1444(F) 22=-1444(F) 23=-1433(F) 24=-1433(F)
- 3) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-58, 4-7=-58, 11-14=-20
Concentrated Loads (lb)
Vert: 9=-1227(F) 17=-1250(F) 18=-1223(F) 19=-1223(F) 20=-1250(F) 21=-1243(F) 22=-1243(F) 23=-1231(F) 24=-1231(F)
- 4) Dead + 0.75 Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-43, 4-7=-43, 11-14=-20
Concentrated Loads (lb)
Vert: 9=-1168(F) 17=-1116(F) 18=-1038(F) 19=-1086(F) 20=-1258(F) 21=-1184(F) 22=-1107(F) 23=-1097(F) 24=-1097(F)
- 5) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-20, 4-7=-20, 11-14=-40
Concentrated Loads (lb)
Vert: 9=-925(F) 17=-967(F) 18=-923(F) 19=-923(F) 20=-972(F) 21=-958(F) 22=-958(F) 23=-929(F) 24=-929(F)
- 6) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=13, 2-4=-2, 4-6=8, 6-7=3, 11-14=-8
Horz: 1-2=-25, 2-4=-10, 4-6=20, 6-7=15
Concentrated Loads (lb)
Vert: 9=128(F) 17=118(F) 18=126(F) 19=127(F) 20=120(F) 21=121(F) 22=120(F) 23=126(F) 24=126(F)
- 7) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=3, 2-4=8, 4-6=-2, 6-7=13, 11-14=-8
Horz: 1-2=-15, 2-4=-20, 4-6=10, 6-7=25
Concentrated Loads (lb)
Vert: 9=128(F) 17=118(F) 18=126(F) 19=127(F) 20=120(F) 21=121(F) 22=120(F) 23=126(F) 24=126(F)
- 8) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-26, 2-4=-32, 4-6=-10, 6-7=-5, 11-14=-20
Horz: 1-2=6, 2-4=12, 4-6=10, 6-7=15
Concentrated Loads (lb)
Vert: 9=140(F) 17=130(F) 18=138(F) 19=138(F) 20=131(F) 21=133(F) 22=132(F) 23=138(F) 24=138(F)
- 9) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-5, 2-4=-10, 4-6=-32, 6-7=-26, 11-14=-20
Horz: 1-2=-15, 2-4=-10, 4-6=-12, 6-7=-6
Concentrated Loads (lb)
Vert: 9=140(F) 17=130(F) 18=138(F) 19=138(F) 20=131(F) 21=133(F) 22=132(F) 23=138(F) 24=138(F)
- 10) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=30, 2-4=16, 4-6=16, 6-7=30, 11-14=-8
Horz: 1-2=-42, 2-4=-28, 4-6=28, 6-7=42
Concentrated Loads (lb)
Vert: 9=128(F) 17=118(F) 18=126(F) 19=127(F) 20=120(F) 21=121(F) 22=120(F) 23=126(F) 24=126(F)
- 11) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=15, 2-4=1, 4-6=1, 6-7=15, 11-14=-8
Horz: 1-2=-27, 2-4=-13, 4-6=13, 6-7=27
Concentrated Loads (lb)
Vert: 9=128(F) 17=118(F) 18=126(F) 19=127(F) 20=120(F) 21=121(F) 22=120(F) 23=126(F) 24=126(F)
- 12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-16, 2-4=-21, 4-6=-21, 6-7=-16, 11-14=-20
Horz: 1-2=-4, 2-4=1, 4-6=-1, 6-7=4
Concentrated Loads (lb)
Vert: 9=140(F) 17=130(F) 18=138(F) 19=138(F) 20=131(F) 21=133(F) 22=132(F) 23=138(F) 24=138(F)
- 13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-16, 2-4=-21, 4-6=-21, 6-7=-16, 11-14=-20
Horz: 1-2=-4, 2-4=1, 4-6=-1, 6-7=4
Concentrated Loads (lb)
Vert: 9=140(F) 17=130(F) 18=138(F) 19=138(F) 20=131(F) 21=133(F) 22=132(F) 23=138(F) 24=138(F)
- 14) Dead + Snow on Overhangs: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-51, 2-4=-20, 4-6=-20, 6-7=-51, 11-14=-20

Continued on page 3

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	GR2	Common Girder	1	2	I43520215
Builders First Source, Valley Center, KS 67147					Job Reference (optional)

8,240 s Mar 9 2020 MiTek Industries, Inc. Fri Nov 6 09:47:22 2020 Page 3
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-JjC0kHT5yEd2tWDd7dPUHfuxD?TbkaSK4CKA78yLxZp

LOAD CASE(S)

- Concentrated Loads (lb)
Vert: 9=-624(F) 17=-645(F) 18=-622(F) 19=-622(F) 20=-647(F) 21=-640(F) 22=-640(F) 23=-626(F) 24=-626(F)
- 15) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-4=-20, 4-7=-20, 11-14=-20
Concentrated Loads (lb)
Vert: 9=-624(F) 17=-645(F) 18=-622(F) 19=-622(F) 20=-647(F) 21=-640(F) 22=-640(F) 23=-626(F) 24=-626(F)
- 16) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-48, 2-4=-52, 4-6=-36, 6-7=-32, 11-14=-20
Horz: 1-2=5, 2-4=9, 4-6=7, 6-7=11
Concentrated Loads (lb)
Vert: 9=28(F) 17=18(F) 18=26(F) 19=27(F) 20=19(F) 21=21(F) 22=20(F) 23=26(F) 24=26(F)
- 17) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-32, 2-4=-36, 4-6=-52, 6-7=-48, 11-14=-20
Horz: 1-2=-11, 2-4=-7, 4-6=-9, 6-7=-5
Concentrated Loads (lb)
Vert: 9=28(F) 17=18(F) 18=26(F) 19=27(F) 20=19(F) 21=21(F) 22=20(F) 23=26(F) 24=26(F)
- 18) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-40, 2-4=-44, 4-6=-44, 6-7=-40, 11-14=-20
Horz: 1-2=-3, 2-4=1, 4-6=-1, 6-7=3
Concentrated Loads (lb)
Vert: 9=28(F) 17=18(F) 18=26(F) 19=27(F) 20=19(F) 21=21(F) 22=20(F) 23=26(F) 24=26(F)
- 19) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-40, 2-4=-44, 4-6=-44, 6-7=-40, 11-14=-20
Horz: 1-2=-3, 2-4=1, 4-6=-1, 6-7=3
Concentrated Loads (lb)
Vert: 9=28(F) 17=18(F) 18=26(F) 19=27(F) 20=19(F) 21=21(F) 22=20(F) 23=26(F) 24=26(F)
- 20) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-62, 2-4=-66, 4-6=-50, 6-7=-46, 11-14=-20
Horz: 1-2=5, 2-4=9, 4-6=7, 6-7=11
Concentrated Loads (lb)
Vert: 9=28(F) 17=18(F) 18=26(F) 19=27(F) 20=19(F) 21=21(F) 22=20(F) 23=26(F) 24=26(F)
- 21) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-46, 2-4=-50, 4-6=-66, 6-7=-62, 11-14=-20
Horz: 1-2=-11, 2-4=-7, 4-6=-9, 6-7=-5
Concentrated Loads (lb)
Vert: 9=28(F) 17=18(F) 18=26(F) 19=27(F) 20=19(F) 21=21(F) 22=20(F) 23=26(F) 24=26(F)
- 22) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-54, 2-4=-58, 4-6=-58, 6-7=-54, 11-14=-20
Horz: 1-2=-3, 2-4=1, 4-6=-1, 6-7=3
Concentrated Loads (lb)
Vert: 9=28(F) 17=18(F) 18=26(F) 19=27(F) 20=19(F) 21=21(F) 22=20(F) 23=26(F) 24=26(F)
- 23) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-54, 2-4=-58, 4-6=-58, 6-7=-54, 11-14=-20
Horz: 1-2=-3, 2-4=1, 4-6=-1, 6-7=3
Concentrated Loads (lb)
Vert: 9=28(F) 17=18(F) 18=26(F) 19=27(F) 20=19(F) 21=21(F) 22=20(F) 23=26(F) 24=26(F)
- 24) Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-12, 2-4=-17, 4-7=-12, 11-14=-8
Horz: 2-4=5
Concentrated Loads (lb)
Vert: 9=43(F) 17=33(F) 18=41(F) 19=42(F) 20=35(F) 21=36(F) 22=35(F) 23=41(F) 24=41(F)
- 25) Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-12, 4-6=-17, 6-7=-12, 11-14=-8
Horz: 4-6=-5
Concentrated Loads (lb)
Vert: 9=43(F) 17=33(F) 18=41(F) 19=42(F) 20=35(F) 21=36(F) 22=35(F) 23=41(F) 24=41(F)
- 26) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-7=-20, 11-14=-20
Concentrated Loads (lb)
Vert: 9=-1428(F) 17=-1452(F) 18=-1424(F) 19=-1424(F) 20=-1451(F) 21=-1444(F) 22=-1444(F) 23=-1433(F) 24=-1433(F)
- 27) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-20, 4-7=-70, 11-14=-20

Continued on page 4

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	143520215
2538913	GR2	Common Girder	1	2	Job Reference (optional)	

Builders First Source, Valley Center, KS 67147

8,240 s Mar 9 2020 MiTek Industries, Inc. Fri Nov 6 09:47:22 2020 Page 4
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-JjC0kHT5yEd2tWDd7dPUHfuxD?TbkaSK4CKA78yLxZp

LOAD CASE(S)

- Concentrated Loads (lb)
Vert: 9=-1428(F) 17=-1452(F) 18=-1424(F) 19=-1424(F) 20=-1451(F) 21=-1444(F) 22=-1444(F) 23=-1433(F) 24=-1433(F)
- 28) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-58, 4-7=-20, 11-14=-20
Concentrated Loads (lb)
Vert: 9=-1227(F) 17=-1250(F) 18=-1223(F) 19=-1223(F) 20=-1250(F) 21=-1243(F) 22=-1243(F) 23=-1231(F) 24=-1231(F)
- 29) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-20, 4-7=-58, 11-14=-20
Concentrated Loads (lb)
Vert: 9=-1227(F) 17=-1250(F) 18=-1223(F) 19=-1223(F) 20=-1250(F) 21=-1243(F) 22=-1243(F) 23=-1231(F) 24=-1231(F)
- 30) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=13, 2-4=-2, 4-6=8, 6-7=3, 11-14=-8
Horz: 1-2=-25, 2-4=-10, 4-6=20, 6-7=15
Concentrated Loads (lb)
Vert: 9=-683(F) 17=-698(F) 18=-665(F) 19=-668(F) 20=-718(F) 21=-699(F) 22=-686(F) 23=-679(F) 24=-679(F)
- 31) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=3, 2-4=8, 4-6=-2, 6-7=13, 11-14=-8
Horz: 1-2=-15, 2-4=-20, 4-6=10, 6-7=25
Concentrated Loads (lb)
Vert: 9=-683(F) 17=-698(F) 18=-665(F) 19=-668(F) 20=-718(F) 21=-699(F) 22=-686(F) 23=-679(F) 24=-679(F)
- 32) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-26, 2-4=-32, 4-6=-10, 6-7=-5, 11-14=-20
Horz: 1-2=6, 2-4=12, 4-6=10, 6-7=15
Concentrated Loads (lb)
Vert: 9=-671(F) 17=-687(F) 18=-654(F) 19=-657(F) 20=-706(F) 21=-688(F) 22=-674(F) 23=-668(F) 24=-668(F)
- 33) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-5, 2-4=-10, 4-6=-32, 6-7=-26, 11-14=-20
Horz: 1-2=-15, 2-4=-10, 4-6=-12, 6-7=-6
Concentrated Loads (lb)
Vert: 9=-671(F) 17=-687(F) 18=-654(F) 19=-657(F) 20=-706(F) 21=-688(F) 22=-674(F) 23=-668(F) 24=-668(F)
- 34) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=30, 2-4=16, 4-6=16, 6-7=30, 11-14=-8
Horz: 1-2=-42, 2-4=-28, 4-6=28, 6-7=42
Concentrated Loads (lb)
Vert: 9=-683(F) 17=-698(F) 18=-665(F) 19=-668(F) 20=-718(F) 21=-699(F) 22=-686(F) 23=-679(F) 24=-679(F)
- 35) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=15, 2-4=1, 4-6=1, 6-7=15, 11-14=-8
Horz: 1-2=-27, 2-4=-13, 4-6=13, 6-7=27
Concentrated Loads (lb)
Vert: 9=-683(F) 17=-698(F) 18=-665(F) 19=-668(F) 20=-718(F) 21=-699(F) 22=-686(F) 23=-679(F) 24=-679(F)
- 36) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-16, 2-4=-21, 4-6=-21, 6-7=-16, 11-14=-20
Horz: 1-2=-4, 2-4=1, 4-6=-1, 6-7=4
Concentrated Loads (lb)
Vert: 9=-671(F) 17=-687(F) 18=-654(F) 19=-657(F) 20=-706(F) 21=-688(F) 22=-674(F) 23=-668(F) 24=-668(F)
- 37) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-16, 2-4=-21, 4-6=-21, 6-7=-16, 11-14=-20
Horz: 1-2=-4, 2-4=1, 4-6=-1, 6-7=4
Concentrated Loads (lb)
Vert: 9=-671(F) 17=-687(F) 18=-654(F) 19=-657(F) 20=-706(F) 21=-688(F) 22=-674(F) 23=-668(F) 24=-668(F)
- 38) Reversal: Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-48, 2-4=-52, 4-6=-36, 6-7=-32, 11-14=-20
Horz: 1-2=5, 2-4=9, 4-6=7, 6-7=11
Concentrated Loads (lb)
Vert: 9=-1067(F) 17=-1029(F) 18=-958(F) 19=-996(F) 20=-1150(F) 21=-1084(F) 22=-1016(F) 23=-1011(F) 24=-1011(F)
- 39) Reversal: Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-32, 2-4=-36, 4-6=-52, 6-7=-48, 11-14=-20
Horz: 1-2=-11, 2-4=-7, 4-6=-9, 6-7=-5
Concentrated Loads (lb)
Vert: 9=-1067(F) 17=-1029(F) 18=-958(F) 19=-996(F) 20=-1150(F) 21=-1084(F) 22=-1016(F) 23=-1011(F) 24=-1011(F)
- 40) Reversal: Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60

Continued on page 5

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	GR2	Common Girder	1	2	I43520215
					Job Reference (optional)

Builders First Source, Valley Center, KS 67147

8,240 s Mar 9 2020 MiTek Industries, Inc. Fri Nov 6 09:47:22 2020 Page 5
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-JjC0kHT5yEd2tWDd7dPUHfuxD?TbkaSK4CKA78yLxZp

LOAD CASE(S)

- Uniform Loads (plf)
Vert: 1-2=-40, 2-4=-44, 4-6=-44, 6-7=-40, 11-14=-20
Horz: 1-2=-3, 2-4=1, 4-6=-1, 6-7=3
- Concentrated Loads (lb)
Vert: 9=-1067(F) 17=-1029(F) 18=-958(F) 19=-996(F) 20=-1150(F) 21=-1084(F) 22=-1016(F) 23=-1011(F) 24=-1011(F)
- 41) Reversal: Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-2=-40, 2-4=-44, 4-6=-44, 6-7=-40, 11-14=-20
Horz: 1-2=-3, 2-4=1, 4-6=-1, 6-7=3
- Concentrated Loads (lb)
Vert: 9=-1067(F) 17=-1029(F) 18=-958(F) 19=-996(F) 20=-1150(F) 21=-1084(F) 22=-1016(F) 23=-1011(F) 24=-1011(F)
- 42) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-2=-62, 2-4=-66, 4-6=-50, 6-7=-46, 11-14=-20
Horz: 1-2=5, 2-4=9, 4-6=7, 6-7=11
- Concentrated Loads (lb)
Vert: 9=-1112(F) 17=-1130(F) 18=-1097(F) 19=-1099(F) 20=-1144(F) 21=-1128(F) 22=-1118(F) 23=-1111(F) 24=-1111(F)
- 43) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-2=-46, 2-4=-50, 4-6=-66, 6-7=-62, 11-14=-20
Horz: 1-2=-11, 2-4=-7, 4-6=-9, 6-7=-5
- Concentrated Loads (lb)
Vert: 9=-1112(F) 17=-1130(F) 18=-1097(F) 19=-1099(F) 20=-1144(F) 21=-1128(F) 22=-1118(F) 23=-1111(F) 24=-1111(F)
- 44) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-2=-54, 2-4=-58, 4-6=-58, 6-7=-54, 11-14=-20
Horz: 1-2=-3, 2-4=1, 4-6=-1, 6-7=3
- Concentrated Loads (lb)
Vert: 9=-1112(F) 17=-1130(F) 18=-1097(F) 19=-1099(F) 20=-1144(F) 21=-1128(F) 22=-1118(F) 23=-1111(F) 24=-1111(F)
- 45) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-2=-54, 2-4=-58, 4-6=-58, 6-7=-54, 11-14=-20
Horz: 1-2=-3, 2-4=1, 4-6=-1, 6-7=3
- Concentrated Loads (lb)
Vert: 9=-1112(F) 17=-1130(F) 18=-1097(F) 19=-1099(F) 20=-1144(F) 21=-1128(F) 22=-1118(F) 23=-1111(F) 24=-1111(F)
- 46) Reversal: Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-2=-12, 2-4=-17, 4-7=-12, 11-14=-8
Horz: 2-4=5
- Concentrated Loads (lb)
Vert: 9=-598(F) 17=-613(F) 18=-581(F) 19=-583(F) 20=-633(F) 21=-614(F) 22=-601(F) 23=-594(F) 24=-594(F)
- 47) Reversal: Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
Vert: 1-4=-12, 4-6=-17, 6-7=-12, 11-14=-8
Horz: 4-6=-5
- Concentrated Loads (lb)
Vert: 9=-598(F) 17=-613(F) 18=-581(F) 19=-583(F) 20=-633(F) 21=-614(F) 22=-601(F) 23=-594(F) 24=-594(F)

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

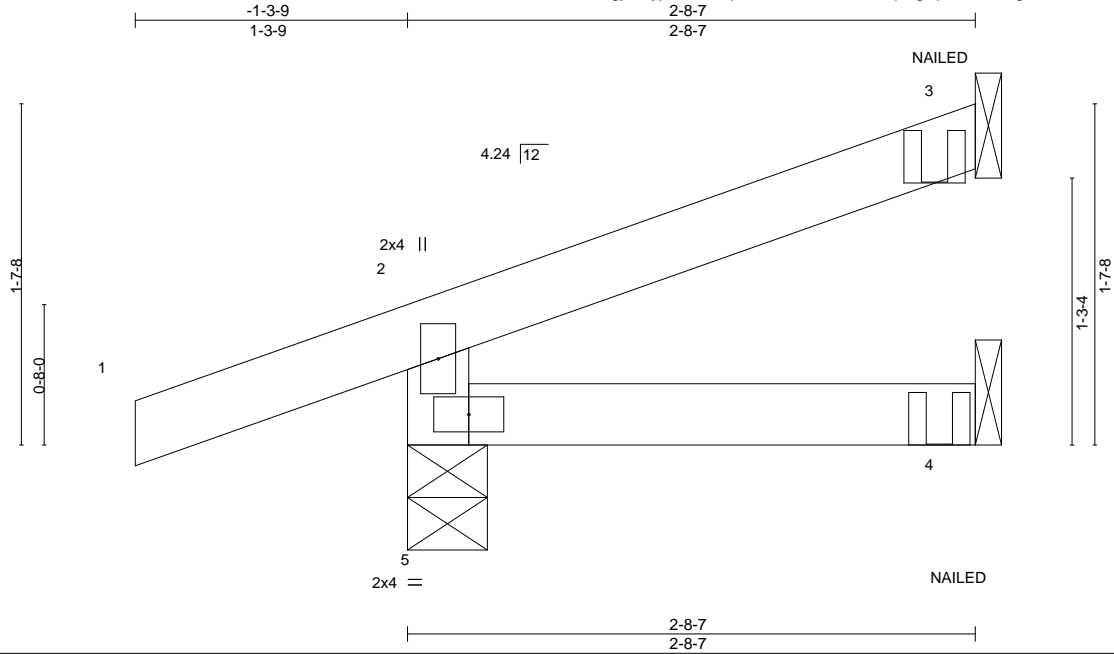
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	
2538913	JD1	Jack-Open	2	1		I43520216
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:10 2020 Page 1
ID:2gjJ0LyjzZmYPRpPutoMbQzFwGX-soq0zgEpRWs5brbgH_xO63KUx?oGoDnjR0AdjKyM8ix



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.14	in (loc) l/defl L/d	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) -0.00 4-5 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.00 4-5 >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MR	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 8 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=56(LC 16)
Max Uplift 5=55(LC 16), 3=-20(LC 13)
Max Grav 5=250(LC 21), 3=66(LC 21), 4=47(LC 7)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-51, 2-3=-51, 4-5=-20
Concentrated Loads (lb)
Vert: 3=-8(F) 4=-1(F)



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	JD2	Jack-Open	2	1	
					Job Reference (optional)

I43520217

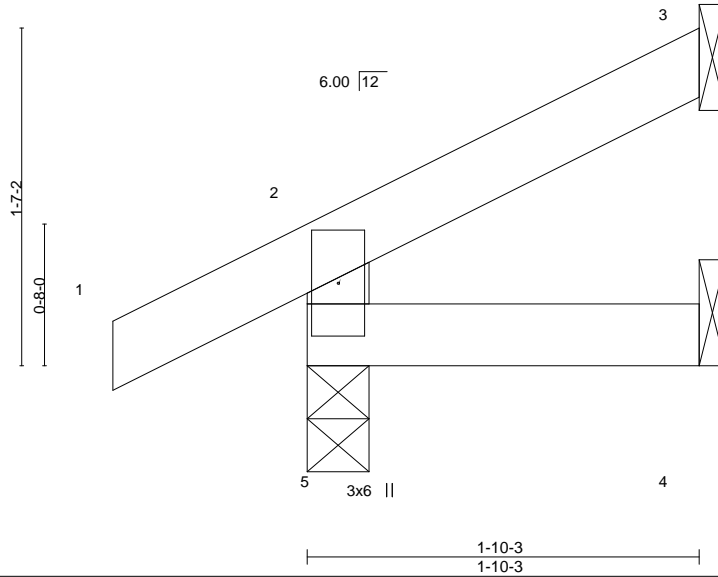
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:11 2020 Page 1

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0-11-0 1-10-3
0-11-0 1-10-3

Scale = 1:10.9



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.08	in (loc) l/defl L/d	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Lumber DOL 1.15	BC 0.02	Vert(LL) -0.00 5 >999 240		
TCDL 10.0	Rep Stress Incr YES	WB 0.00	Vert(CT) -0.00 5 >999 180		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-MR	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0				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 1-10-3 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=56(LC 16)
Max Uplift 5=-33(LC 16), 3=-14(LC 16)
Max Grav 5=179(LC 21), 3=42(LC 21), 4=30(LC 7)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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 100 lb uplift at joint(s) 5, 3.
- 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.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	JD3	Jack-Open	3	1	
Job Reference (optional)					

I43520218

Builders FirstSource (Valley Center),

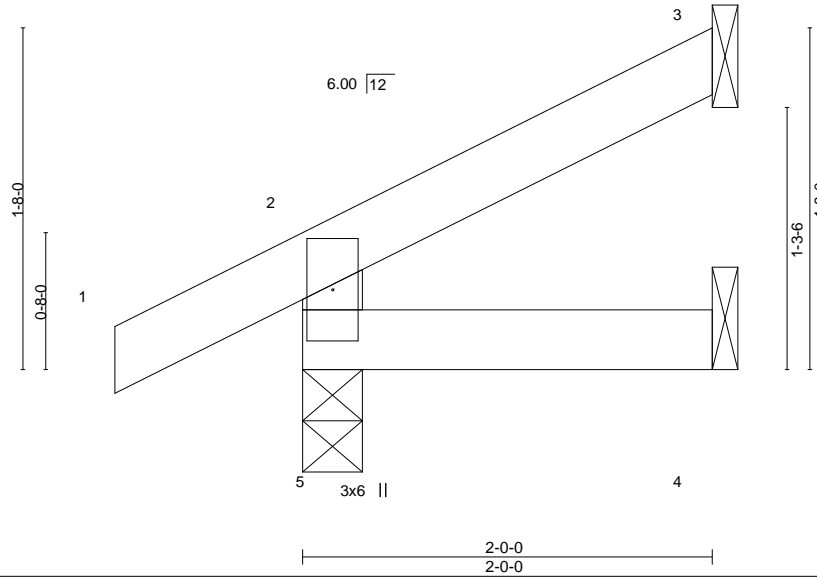
Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:12 2020 Page 1

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-0-11-0 2-0-0
0-11-0 2-0-0

Scale = 1:11.2



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.08	in (loc) l/defl L/d	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 5 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.00 4-5 >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MR	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			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 2-0-0 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=58(LC 16)
Max Uplift 5=33(LC 16), 3=16(LC 16)
Max Grav 5=185(LC 21), 3=49(LC 21), 4=33(LC 7)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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 100 lb uplift at joint(s) 5, 3.
- 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.



November 6, 2020

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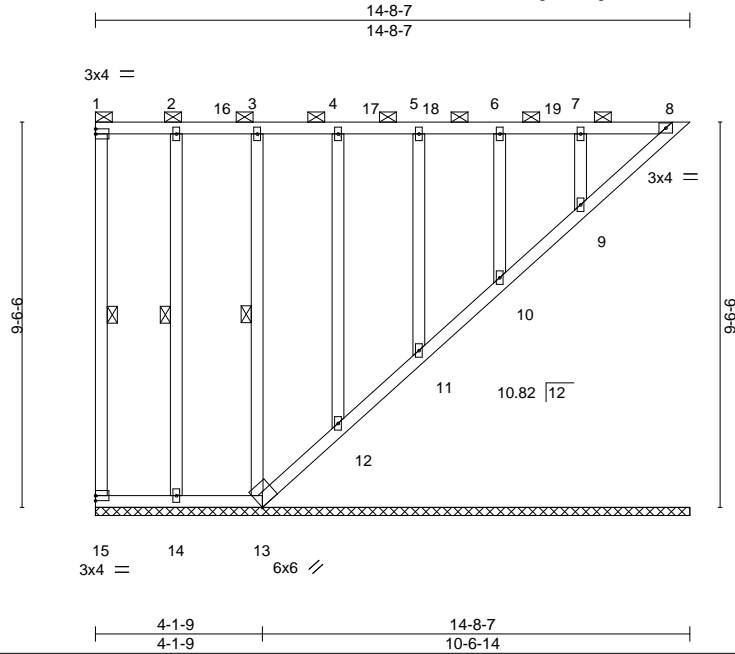
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	LG1	GABLE	2	1	
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:13 2020 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-GNW8bhGhkREgSJJFy6V5kiyvKCnd?YO97_PHKfyM8iu



Scale = 1:57.0

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.45	Vert(LL)	n/a	-	n/a	MT20	197/144
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.14	Horz(CT)	0.01	8	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 89 lb	FT = 20%

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 2-0-0 oc purlins (6-0-0 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 1-15, 2-14, 3-13

REACTIONS.

All bearings 14-8-7.

(lb) - Max Horz 15=-233(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 15, 14, 13, 12, 11, 10, 9 except 8=-101(LC 14)

Max Grav All reactions 250 lb or less at joint(s) 15, 8, 14, 13, 12, 11, 10, 9

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 11-3-14, Corner(3) 11-3-14 to 14-3-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 14, 13, 12, 11, 10, 9 except (jt=lb) 8=101.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8, 12, 11, 10, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 6, 2020

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Chesterfield, MO 63017

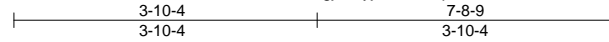
Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	LG2	GABLE	1	1	
Job Reference (optional)					

I43520220

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

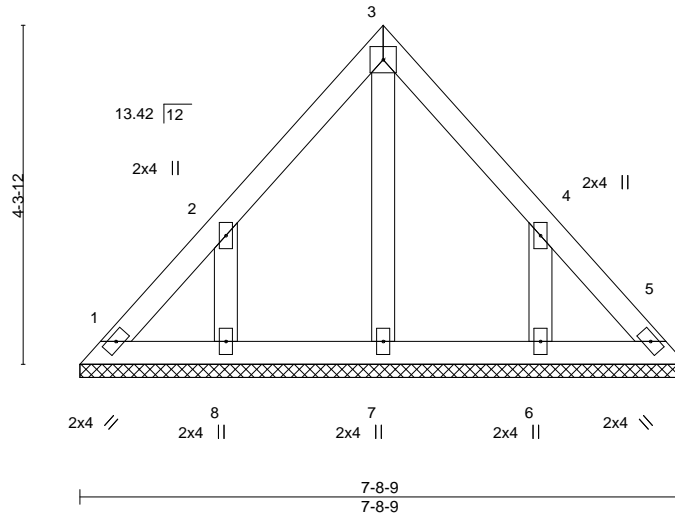
8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:14 2020 Page 1

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4x4 =

Scale = 1:29.3



LOADING (psf)	SPACING-	CSL.	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.06	in (loc) l/defl L/d	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.02	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 29 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 7-8-9.
(lb) - Max Horz 1=101(LC 12)
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, 7, 8, 6

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-10-4, Exterior(2R) 3-10-4 to 6-10-4, Interior(1) 6-10-4 to 7-4-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 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.



November 6, 2020

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

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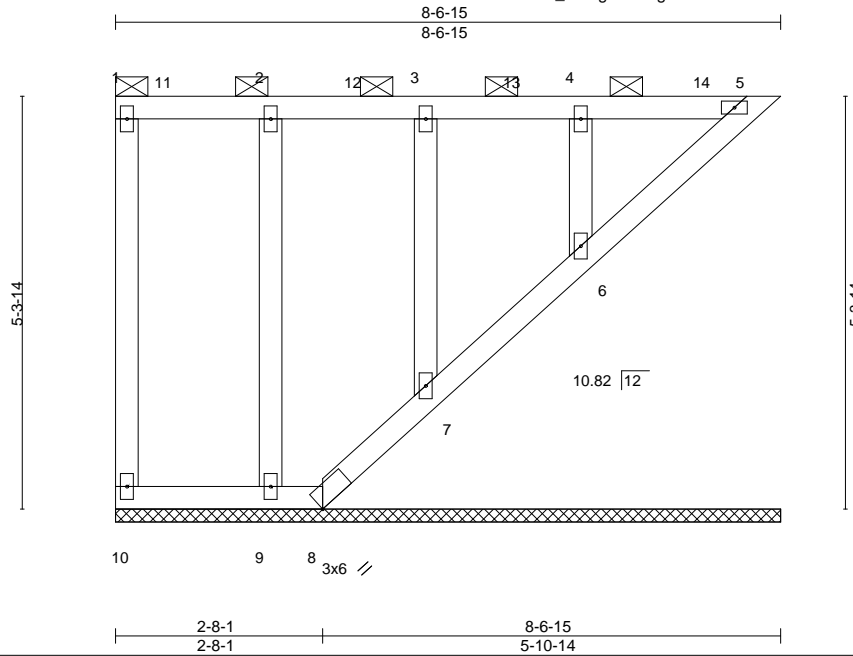
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	LG3	GABLE	1	1	I43520221

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:15 2020 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-Clev0NlxG3V0hdTd3XXZp71Jd0VWTT_SaHuOOXyM8is



LOADING (psf)	SPACING-	CSL.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.21	Vert(LL) n/a	-	n/a	999		MT20	197/144
Snow (Pf/Pg) 20.4/20.0	Lumber DOL 1.15	BC 0.04	Vert(CT) n/a	-	n/a	999			
TCDL 10.0	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00	5	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-P							
BCDL 10.0								Weight: 38 lb	FT = 20%

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 2-0-0 oc purlins: 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 5-6.

REACTIONS.

All bearings 8-6-15.

(lb) - Max Horz 10=-127(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 10, 5, 8, 9, 7, 6

Max Grav All reactions 250 lb or less at joint(s) 10, 5, 8, 9, 7, 6

FORCES.

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 5-2-6, Corner(3) 5-2-6 to 8-2-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 5, 8, 9, 7, 6.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 7, 6.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 6, 2020

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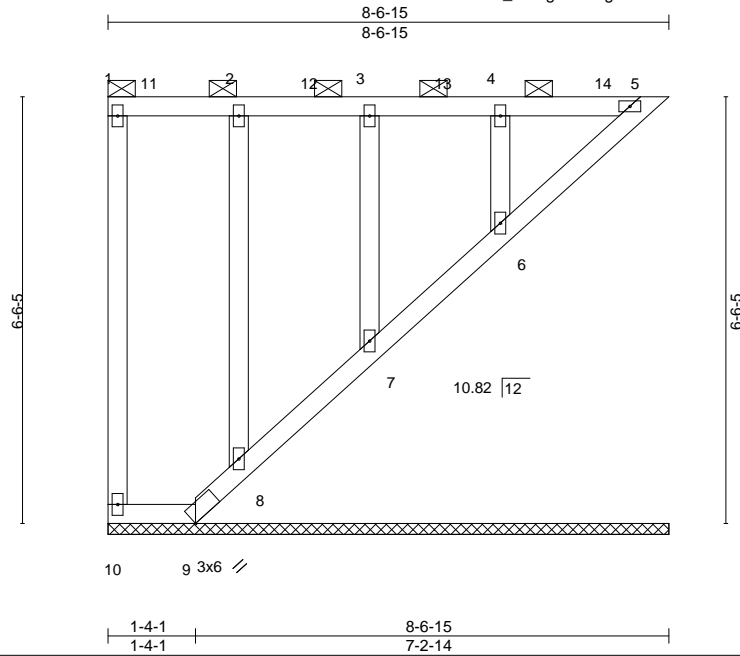


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside
2538913	LG4	GABLE	1	1	
					Job Reference (optional)

I43520222

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:16 2020 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-hxBHDjJa1MdFJm2qdE2oMKaSSPrmCw0cpxdxx_yM8ir

Scale = 1:35.2

LOADING (psf)	SPACING-	CSL.	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.33	in (loc) l/defl L/d	MT20	197/144
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.04	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.08	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 41 lb	FT = 20%

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 2-0-0 oc purlins: 1-5, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 5-6.

REACTIONS.

All bearings 8-6-15.

(lb) - Max Horz 10=-157(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 10, 5, 9, 8, 7, 6

Max Grav All reactions 250 lb or less at joint(s) 10, 5, 9, 8, 7, 6

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 5-2-6, Corner(3) 5-2-6 to 8-2-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 5, 9, 8, 7, 6.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 8, 7, 6.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520223
2538913	M1	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

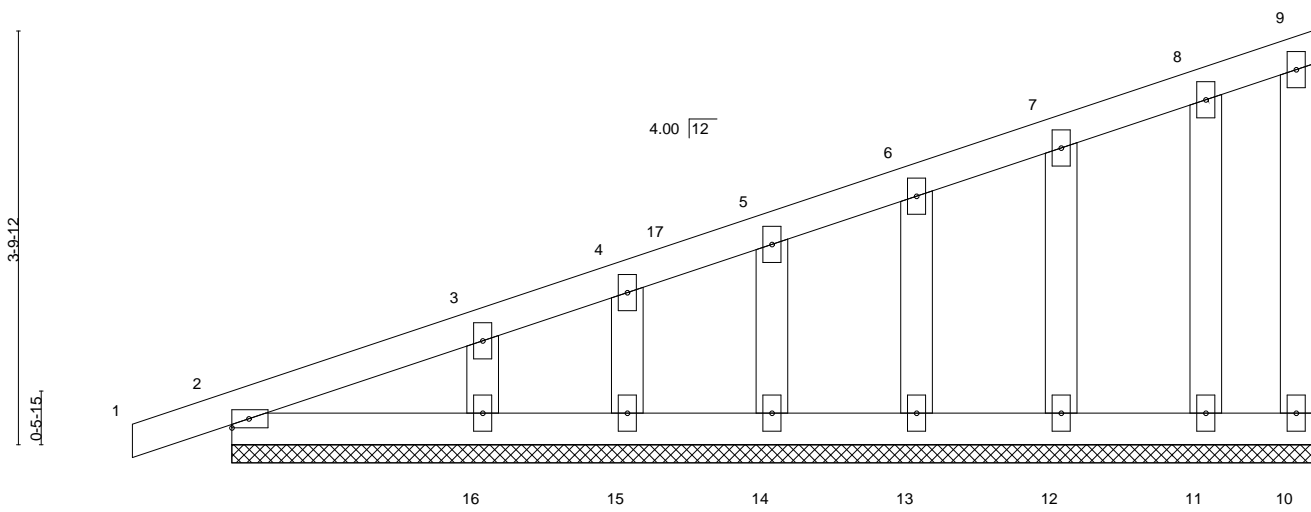
8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:17 2020 Page 1

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9-11-8

9-11-8

-0-11-0
0-11-0



Scale = 1:21.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.07	Vert(LL) 0.00	1	n/r	120	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT) 0.00	1	n/r	120		
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Horz(CT) 0.00	10	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 41 lb	FT = 20%

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.

REACTIONS.

All bearings 9-11-8.

(lb) - Max Horz 2=120(LC 15)

Max Uplift All uplift 100 lb or less at joint(s) 10, 2, 14, 15, 16, 13, 12, 11

Max Grav All reactions 250 lb or less at joint(s) 10, 2, 14, 15, 16, 13, 12, 11

FORCES.

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

TOP CHORD 2-3=-274/129

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-3-12, Exterior(2N) 2-3-12 to 9-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 2, 14, 15, 16, 13, 12, 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.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2538913	Truss M2	Truss Type Monopitch	Qty 10	Ply 1	Summit/3 Woodside Job Reference (optional)	I43520224
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:18 2020 Page 1
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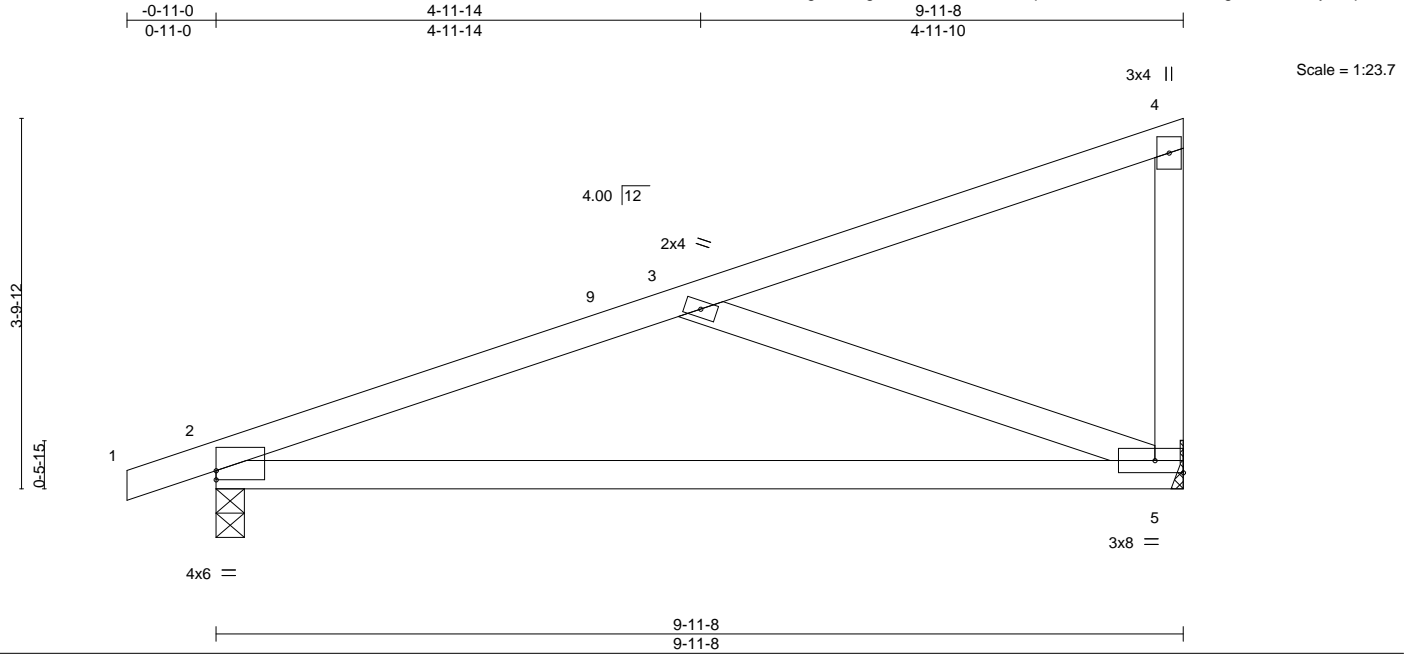


Plate Offsets (X,Y)-- [2.0-0-0,0-1-2]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.42	Vert(LL) -0.21	5-8	>572	240	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.60	Vert(CT) -0.41	5-8	>285	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.30	Horz(CT) 0.01	2	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 34 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 2=121(LC 15)
Max Uplift 2=-62(LC 16), 5=-38(LC 16)
Max Grav 2=509(LC 2), 5=441(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-694/266
BOT CHORD 2-5=-355/636
WEBS 3-5=-621/336

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 9-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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 100 lb uplift at joint(s) 2, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 6, 2020

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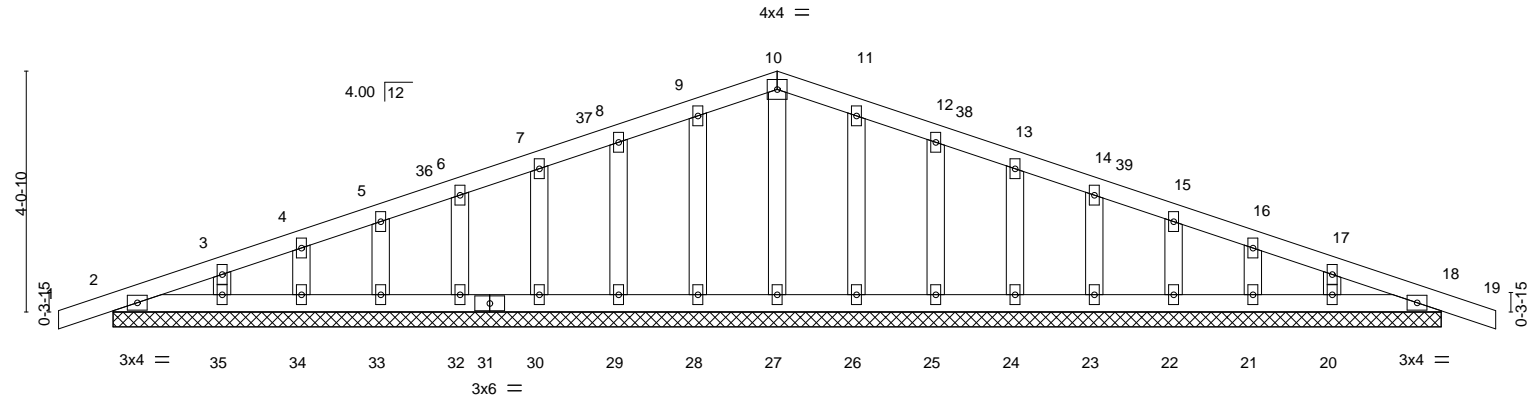
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2538913	Truss M4	Truss Type GABLE	Qty 1	Ply 1	Summit/3 Woodside	I43520226
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:21 2020 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-1v?AHQNrvFYPYwnQnez3OHOwQZfCALzDLicByM8im

0-11-0 11-2-0 22-4-0 23-3-0
0-11-0 11-2-0 11-2-0 0-11-0

Scale = 1:38.7



22-4-0													
22-4-0													
LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	-0.00	19	n/r	120	MT20	197/144	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	19	n/r	120			
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	18	n/a	n/a			
BCLL	0.0	Code IRC2018/TPI2014		Matrix-S							Weight: 86 lb	FT = 20%	
BCDL	10.0												

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6'-0" oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10'-0" oc bracing.
OTHERS	2x4 SPF No.2		

REACTIONS. All bearings 22-4-0.
(lb) - Max Horz 2=49(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 2, 28, 29, 30, 32, 33, 34, 35, 26, 25, 24, 23, 22, 21, 20, 18
Max Grav All reactions 250 lb or less at joint(s) 2, 27, 28, 29, 30, 32, 33, 34, 35, 26, 25, 24, 23, 22, 21, 20, 18

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 1-10-0, Exterior(2N) 1-10-0 to 11-2-0, Corner(3R) 11-2-0 to 14-2-0, Exterior(2N) 14-2-0 to 23-3-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1'-4" oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 28, 29, 30, 32, 33, 34, 35, 26, 25, 24, 23, 22, 21, 20, 18.
- 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.



November 6, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

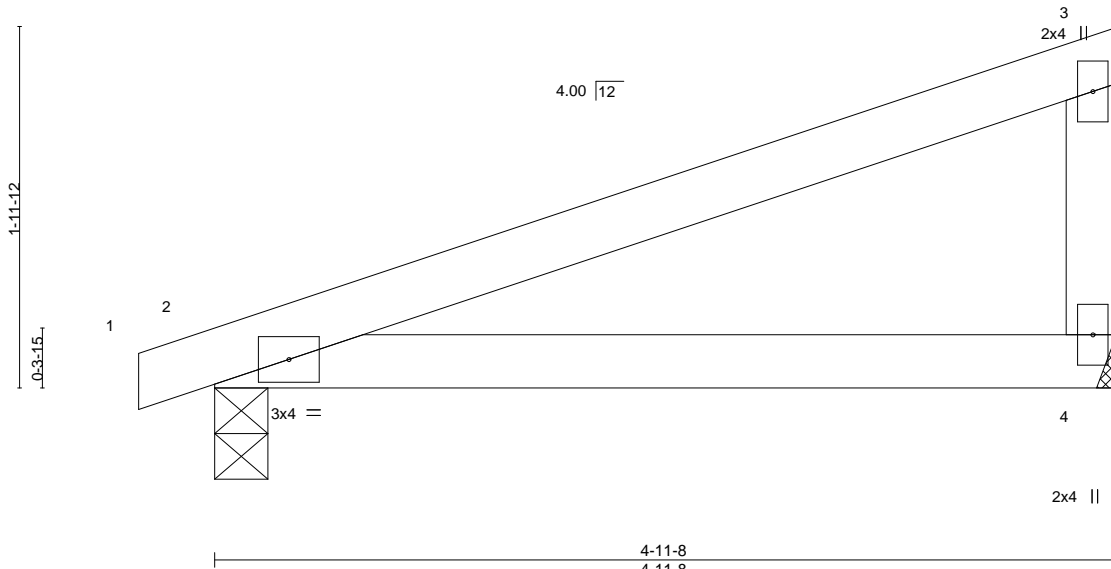
Job	Truss	Truss Type	Qty	Ply	Summit/3 Woodside	I43520228
2538913	P2	Monopitch	6	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:23 2020 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-zl6wh6OzNWVFe4AXCgR8pMgxEAnL6?eQXqpg4yM8ik

-0-5-0
0-5-0

Scale = 1:12.6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.03	MT20		197/144	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.06				
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS							
BCDL	10.0										

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, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=58(LC 15)
Max Uplift 4=18(LC 16), 2=29(LC 16)
Max Grav 4=226(LC 21), 2=260(LC 21)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-5-0 to 2-7-0, Interior(1) 2-7-0 to 4-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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 100 lb uplift at joint(s) 4, 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 6, 2020

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2538913	Truss P3	Truss Type Monopitch	Qty 4	Ply 1	Summit/3 Woodside Job Reference (optional)	I43520229
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Nov 5 18:50:24 2020 Page 1

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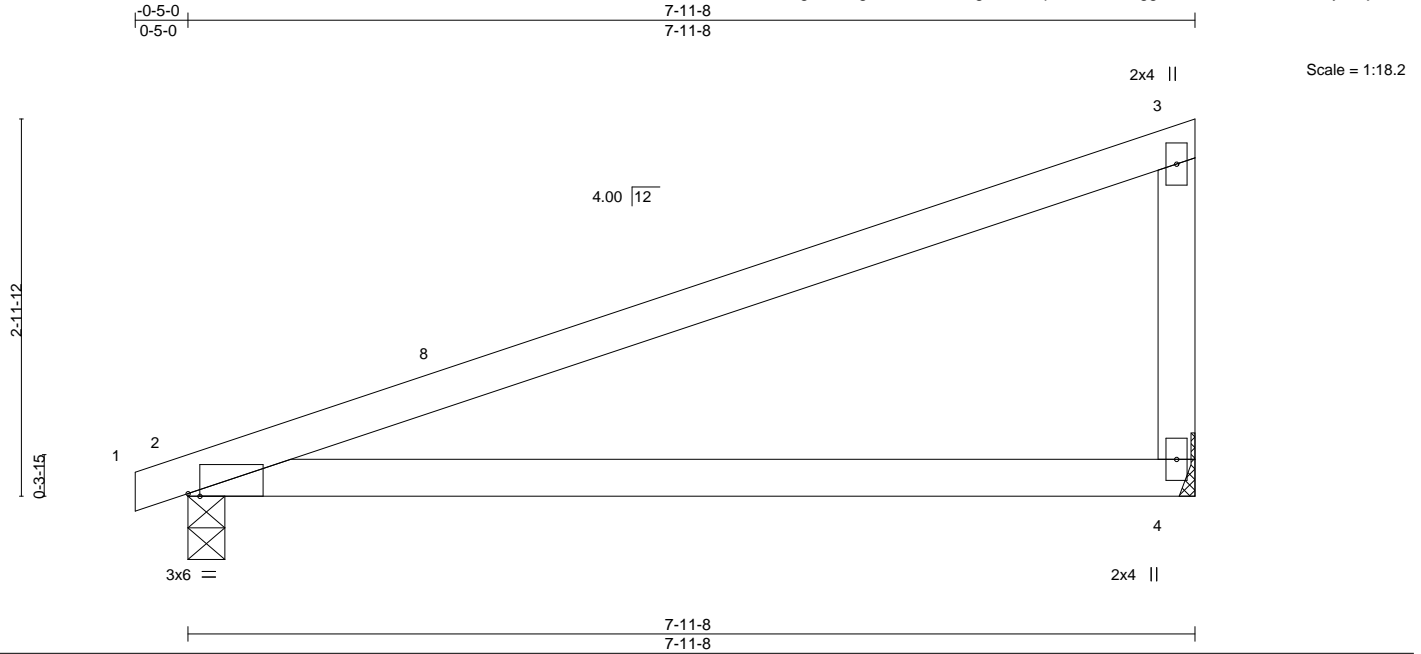


Plate Offsets (X,Y)-- [2:0-1-2,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.86	Vert(LL) -0.19	4-7	>498	240	MT20	197/144
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.64	Vert(CT) -0.39	4-7	>241	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT) 0.01	2	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 22 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, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=92(LC 15)
Max Uplift 4=-30(LC 16), 2=-39(LC 16)
Max Grav 4=361(LC 21), 2=382(LC 2)

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

TOP CHORD 3-4=-259/196

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-5-0 to 2-7-0, Interior(1) 2-7-0 to 7-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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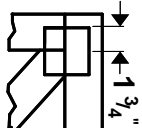
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



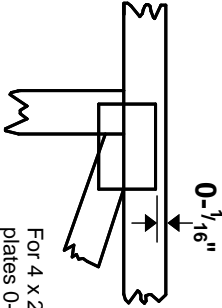
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Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/16" 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

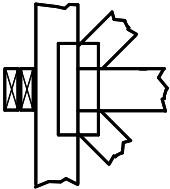
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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/TP1: 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

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

