



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

BY _____

DATE _____

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: 2731404
Summit/86 Hawthorne

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

Pages or sheets covered by this seal: I45512743 thru I45512775

My license renewal date for the state of Missouri is December 31, 2021.

Missouri COA: Engineering 001193



April 6, 2021

Johnson, Andrew ,Engineer

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

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A1	GABLE	1	1	

RELEASE FOR CONSTRUCTION

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CODES ADMINISTRATION

LEE'S SUMMIT, MISSOURI

145510743

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DATE

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

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ID:m1t2XGkUFyK2st1aXRSPCfy84v9-3Cg336EDqWRAABPxbfWpCo5pJxnIJuISKCNbzTICF

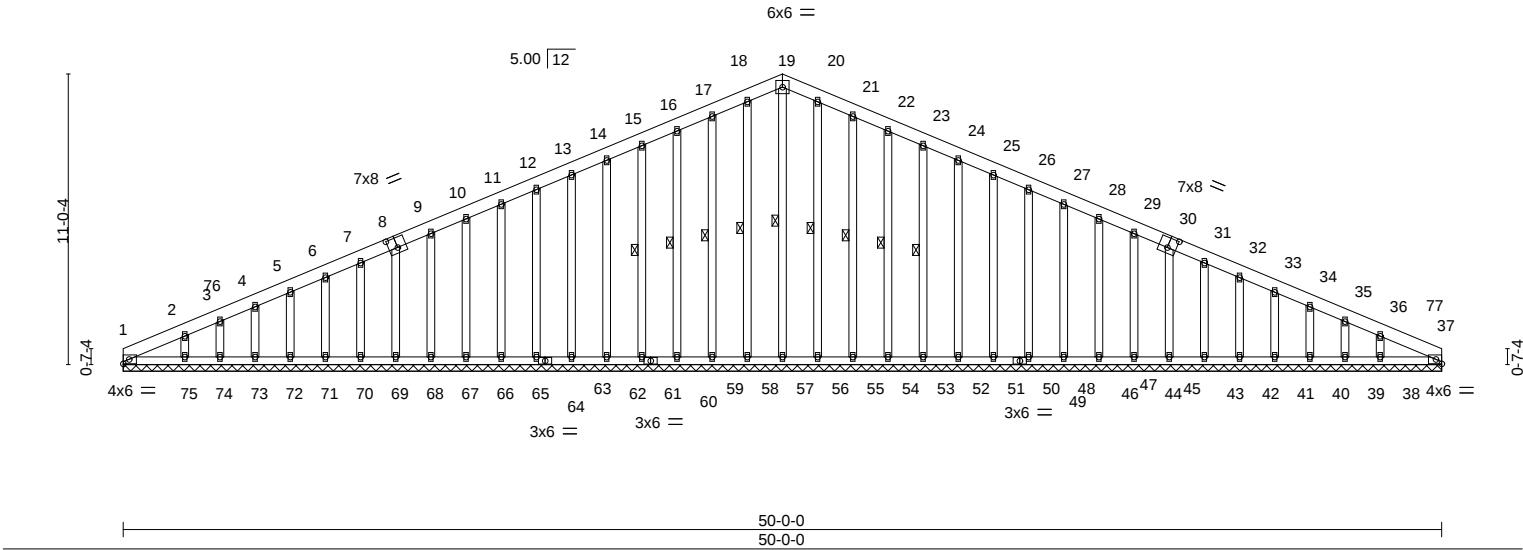


Plate Offsets (X,Y)--	[8:0-4-0,0-4-8], [20:0-0-0,0-0-0], [21:0-0-0,0-0-0], [22:0-0-0,0-0-0], [23:0-0-0,0-0-0], [24:0-0-0,0-0-0], [25:0-0-0,0-0-0], [26:0-0-0,0-0-0], [27:0-0-0,0-0-0], [28:0-0-0,0-0-0], [29:0-0-0,0-0-0], [30:0-4-0,0-4-8], [31:0-0-0,0-0-0], [32:0-0-0,0-0-0], [33:0-0-0,0-0-0], [34:0-0-0,0-0-0], [35:0-0-0,0-0-0], [36:0-0-0,0-0-0]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.01	37	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 372 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SPF No.2	WEBS 1 Row at midpt 19-56, 18-57, 17-58, 16-59, 15-61, 20-55, 21-54, 22-53, 23-52

REACTIONS. All bearings 50-0-0.
 (lb) - Max Horz 1=187(LC 16)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 58, 59, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 54, 53, 52, 51, 50, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38
 Max Grav All reactions 250 lb or less at joint(s) 1, 56, 57, 58, 59, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 55, 54, 53, 52, 37, 51, 50, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 13-14=-91/257, 14-15=-101/284, 15-16=-111/311, 16-17=-122/341, 17-18=-132/370, 18-19=-133/372, 19-20=-133/372, 20-21=-132/370, 21-22=-122/341, 22-23=-111/311, 23-24=-101/284, 24-25=-91/257

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 25-0-0, Corner(3R) 25-0-0 to 28-0-0, Exterior(2N) 28-0-0 to 50-0-0 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.
 - 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) 1, 58, 59, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 54, 53, 52, 51, 50, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 6,2021

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A2	ROOF SPECIAL	1	1	

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LEE'S SUMMIT, MISSOURI

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

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ID:m1tXGkUfYK2st1aXRSPCy84v9-PATVqIMe370Gylue9EhWfVqIKSizRZdrk2z2ozTiCA

8-4-1	16-8-1	25-0-0	30-7-8	38-2-0	42-0-2	45-8-8	50-0-0
8-4-1	8-4-0	8-4-0	5-7-7	7-6-8	3-10-2	3-8-5	4-3-8

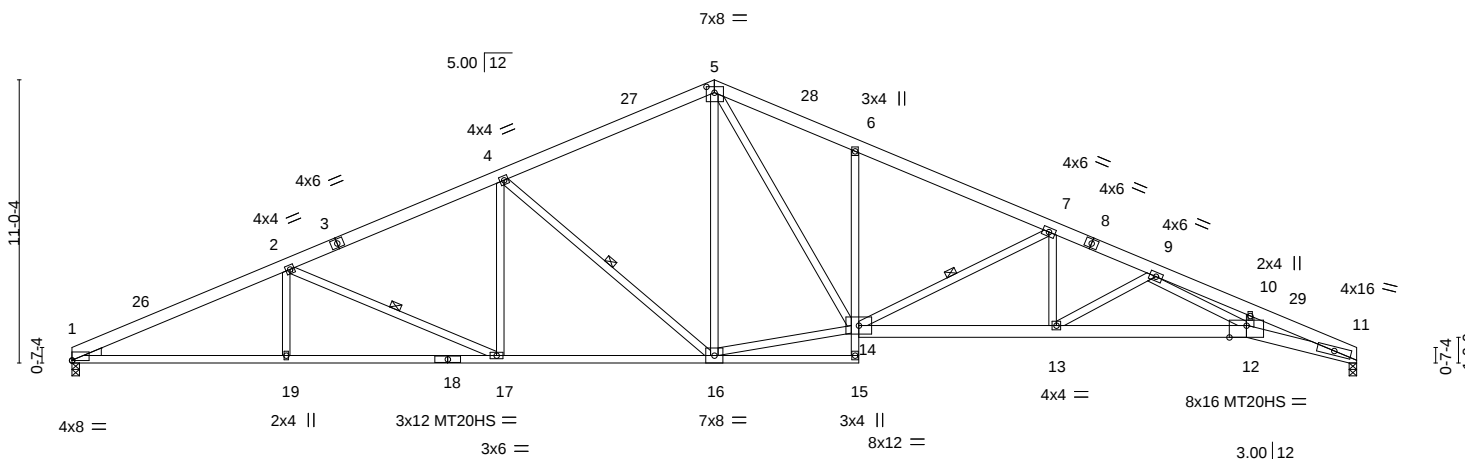


Plate Offsets (X,Y)--	[1:0-0,0-0-2], [5:0-3-12,0-2-12], [12:0-8-0,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.47 13-14	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.85 13-14	>705	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.40 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 265 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-3,8-11: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
6-15: 2x4 SPF No.2, 12-14,11-12: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-17, 4-16, 7-14

REACTIONS.

(size) 1=0-3-8, 11=0-3-8
Max Horz 1=109(LC 12)
Max Uplift 1=-123(LC 12), 11=-123(LC 13)
Max Grav 1=2250(LC 1), 11=2250(LC 1)

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

TOP CHORD 1-2=-4784/700, 2-4=-3971/644, 4-5=-3032/579, 5-6=-4069/759, 6-7=-4120/675,
7-9=-5579/827, 9-10=-8717/1267, 10-11=-8900/1251
BOT CHORD 1-19=-561/4299, 17-19=-561/4299, 16-17=-410/3576, 6-14=-487/182, 13-14=-620/5100,
12-13=-809/6156, 11-12=-1114/8230
WEBS 2-19=0/312, 2-17=-833/175, 4-17=0/560, 4-16=-1195/241, 5-16=-57/575,
14-16=-199/2514, 5-14=-333/2025, 7-14=-1570/260, 7-13=-55/917, 10-12=-10/528,
9-12=-334/2355, 9-13=-1235/221

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-0-0 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
- 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.
- Bearing at joint(s) 11 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) 1=123, 11=123.
- 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.



April 6, 2021

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/86 Hawthorne	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW CODES ADMINISTRATION LEE'S SUMMIT, MISSOURI
2731404	A3	ROOF SPECIAL	1	1	Job Reference (optional)	14512745

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

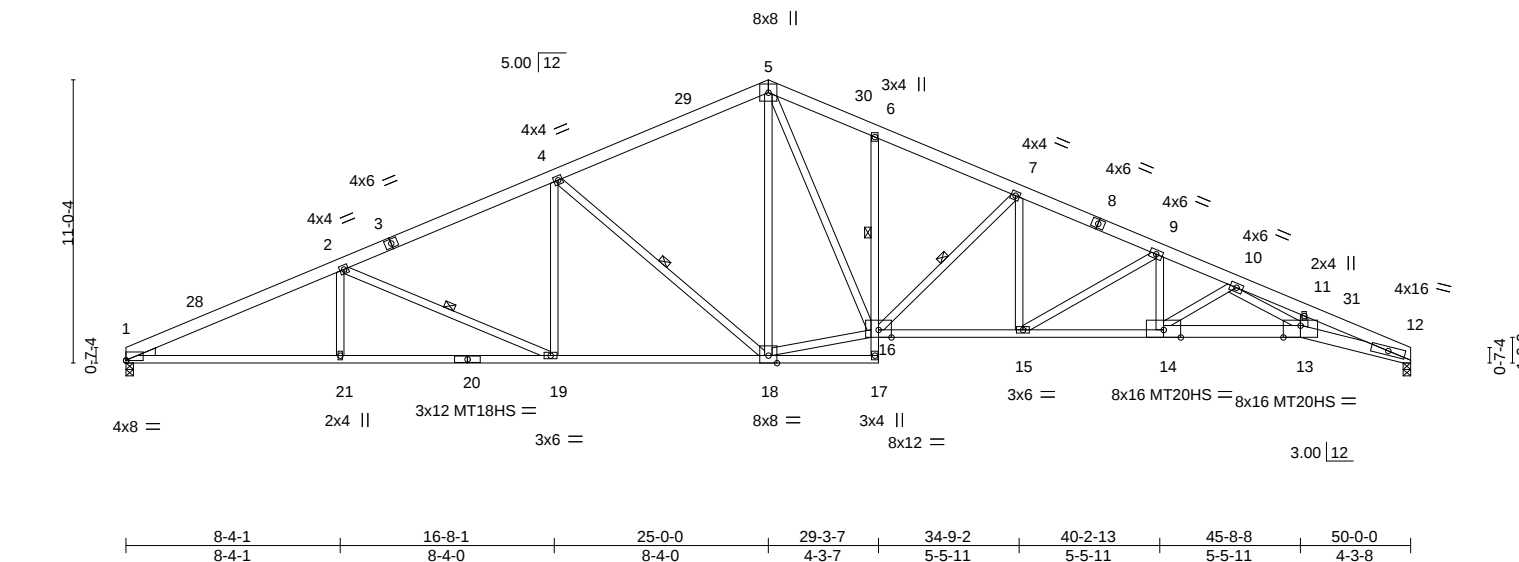
8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:48 2021 Page 1

ID:m1t2XGkUFyK2st1aXRSPCfy84v9-uM1K_AJ_PM7A1614Csmw2T22qkojir4n4OnWaEzTiC9

8-4-1	16-8-1	25-0-0	29-3-7	34-9-2	40-2-13	43-0-9	45-8-8	50-0-0
8-4-1	8-4-0	8-4-0	4-3-7	5-5-11	5-5-11	2-9-11	2-7-15	4-3-8

DATE

Scale: 1/8" = 1'-0"



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.49 15-16	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.91 15-16	>660	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.85	Horz(CT)	0.43 12	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 266 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
8-12: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
6-17: 2x4 SPF No.2, 12-13,13-14: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 6-16
WEBS 1 Row at midpt 2-19, 4-18, 7-16

REACTIONS.

(size) 1=0-3-8, 12=0-3-8
Max Horz 1=109(LC 12)
Max Uplift 1=-123(LC 12), 12=-123(LC 13)
Max Grav 1=2250(LC 1), 12=2250(LC 1)

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

TOP CHORD 1-2=-4784/699, 2-4=-3972/644, 4-5=-3032/580, 5-6=-3765/713, 6-7=-3843/659,
7-9=-4737/740, 9-10=-5946/874, 10-11=-8656/1257, 11-12=-8864/1253
BOT CHORD 1-21=-560/4300, 19-21=-560/4300, 18-19=-410/3575, 6-16=-302/120, 15-16=-500/4334,
14-15=-678/5389, 13-14=-862/6506, 12-13=-1115/8197
WEBS 2-21=0/310, 2-19=-835/175, 4-19=0/563, 4-18=-1192/240, 5-18=-57/474,
16-18=-207/2636, 5-16=-308/1947, 7-16=-1217/217, 7-15=-58/757, 9-15=-1229/207,
9-14=-86/906, 11-13=-39/646, 10-13=-291/2020, 10-14=-1340/224

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-0-0 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
- 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.
- Bearing at joint(s) 12 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) 1=123, 12=123.
- 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.



April 6, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A4	ROOF SPECIAL	4	1	

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 LEE'S SUMMIT, MISSOURI

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:50 2021 Page 1
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 Job Reference (optional)

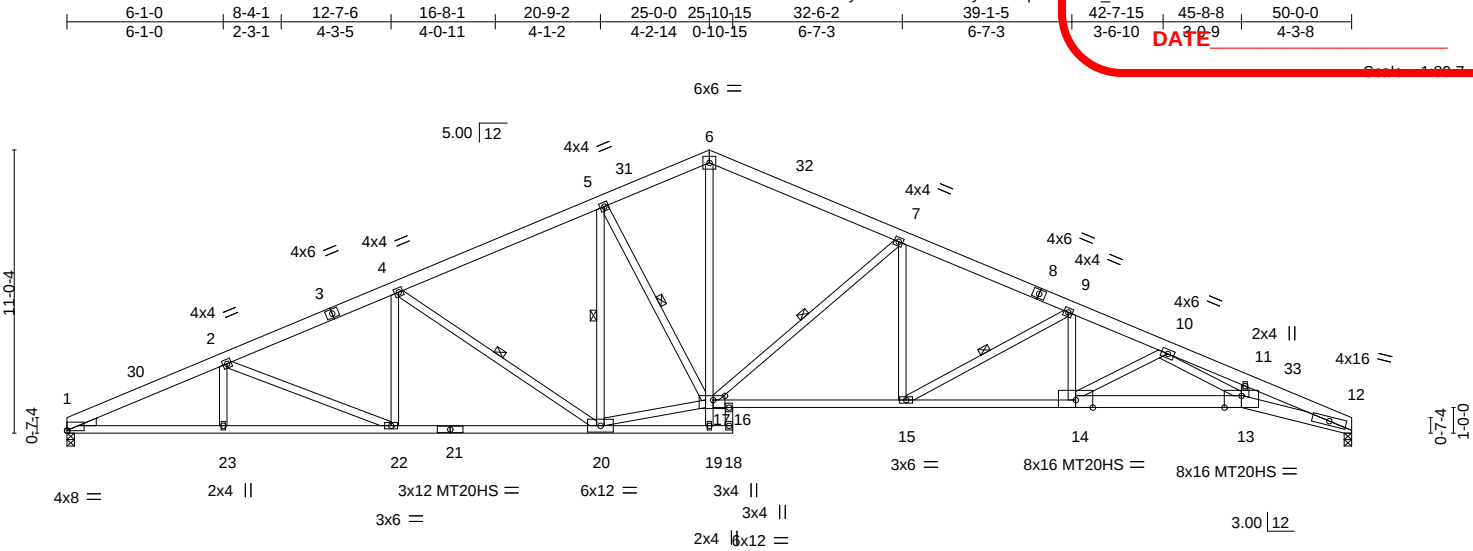


Plate Offsets (X, Y)--		[1:0-0-0,0-0-2], [13:0-8-0,Edge], [17:0-5-8,0-2-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.63
TCDL 10.0	Lumber DOL	1.15	BC 0.95
BCLL 0.0	Rep Stress Incr	YES	WB 0.77
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	-0.50 15-16	>999	240
Vert(CT)	-0.94 15-16	>636	180
Horz(CT)	0.44 12	n/a	n/a
PLATES	GRIP		
MT20	197/144		
MT20HS	148/108		
Weight: 267 lb	FT = 20%		

LUMBER-
 TOP CHORD 2x6 SPF No.2 *Except*
 8-12: 2x6 SPF 2100F 1.8E
 BOT CHORD 2x4 SPF 1650F 1.5E *Except*
 16-18,18-21: 2x4 SPF No.2, 12-13,13-14: 2x6 SPF 2100F 1.8E
 WEBS 2x4 SPF No.2
 WEDGE
 Left: 2x4 SP No.3

REACTIONS. (size) 1=0-3-8, 12=0-3-8
 Max Horz 1=109(LC 12)
 Max Uplift 1=-123(LC 12), 12=-123(LC 13)
 Max Grav 1=2250(LC 1), 12=2250(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-4814/701, 2-4=-4332/675, 4-5=-3498/611, 5-6=-3228/614, 6-7=-3316/606,
 7-9=-4387/704, 9-10=-5668/838, 10-11=-8691/1260, 11-12=-8892/1251
 BOT CHORD 1-23=-576/4332, 22-23=-576/4332, 20-22=-483/3959, 16-17=-392/3982, 15-16=-442/3998,
 14-15=-636/5141, 13-14=-838/6324, 12-13=-1114/8222
 WEBS 7-17=-1381/266, 7-15=-52/796, 9-15=-1314/223, 9-14=-68/857, 11-13=-30/609,
 17-19=0/255, 6-17=-322/2053, 5-17=-582/156, 17-20=-280/3125, 4-20=-1028/203,
 4-22=0/423, 2-22=-466/110, 10-13=-311/2218, 10-14=-1359/236

- NOTES-**
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 3) All plates are MT20 plates unless otherwise indicated.
 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 5) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=123, 12=123.
 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 6, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A5	ROOF SPECIAL	2	1	

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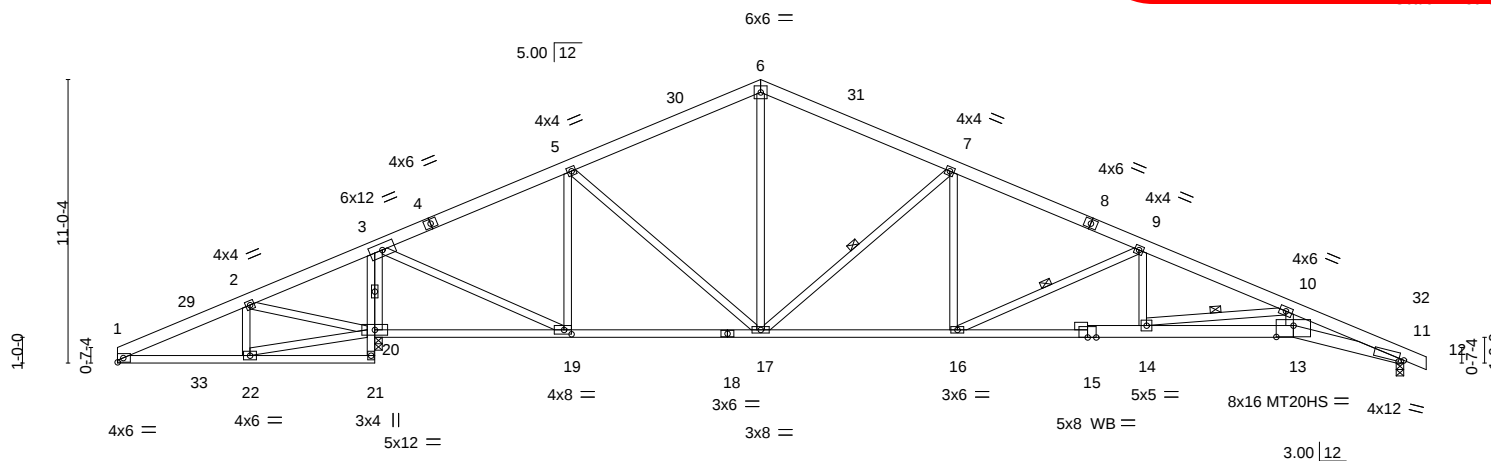
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:m1t2XGkUFyK2st1aXRSPCfy84v9-ixj1BLtiHWIZ0ft_Jdg5gWaxmrVAUDmM0ABZzTIC6

5-0-1	10-0-0	17-6-0	25-0-0	31-10-14	32-6-0	40-0-0	45-8-8	50-0-0	50-10-8
5-0-1	4-11-15	7-6-0	7-6-0	6-10-13	0-7-3	7-6-0	5-8-8	4-3-8	0-10-8

DATE



5-0-1	10-0-0	17-6-0	25-0-0	27-10-4	32-6-0	36-9-6	40-0-0	45-8-8	50-0-0
5-0-1	4-11-15	7-6-0	7-6-0	2-10-4	4-7-12	4-3-6	3-2-10	5-8-8	4-3-8

Plate Offsets (X,Y)-- [11:0-2-4,0-1-2], [13:0-8-0,0-5-4], [19:0-3-8,0-2-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	-0.33 13-14	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.99	Vert(CT)	-0.59 13-14	>815	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 1.00	Horz(CT)	0.21 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 260 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
11-13,13-15: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-17, 9-16, 10-14

REACTIONS.

(size) 11=0-3-8, 20=0-3-8 (req. 0-4-6)
Max Horz 20=-117(LC 17)
Max Uplift 11=-131(LC 13), 20=-229(LC 8)
Max Grav 11=1760(LC 1), 20=2802(LC 1)

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

TOP CHORD 1-2=-389/498, 2-3=-1182/1413, 3-5=-1441/133, 5-6=-1753/196, 6-7=-1754/190,
7-9=-2809/268, 9-10=-4154/370, 10-11=-6677/593
BOT CHORD 1-22=-380/372, 3-20=-2536/880, 19-20=-1100/1170, 17-19=0/1232, 16-17=-25/2501,
14-16=-210/3825, 13-14=-461/5871, 11-13=-483/6203
WEBS 10-13=-65/1316, 6-17=-54/755, 5-17=-249/401, 5-19=-889/430, 3-19=-886/2529,
2-22=-366/263, 2-20=-888/845, 20-22=-325/400, 7-16=-27/730, 7-17=-1301/242,
9-14=0/584, 9-16=-1460/210, 10-14=-2076/256

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) WARNING: Required bearing size at joint(s) 20 greater than input bearing size.
- 6) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=131, 20=229.
- 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.



April 6, 2021

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/86 Hawthorne
2731404	A5A	ROOF SPECIAL	1	1	

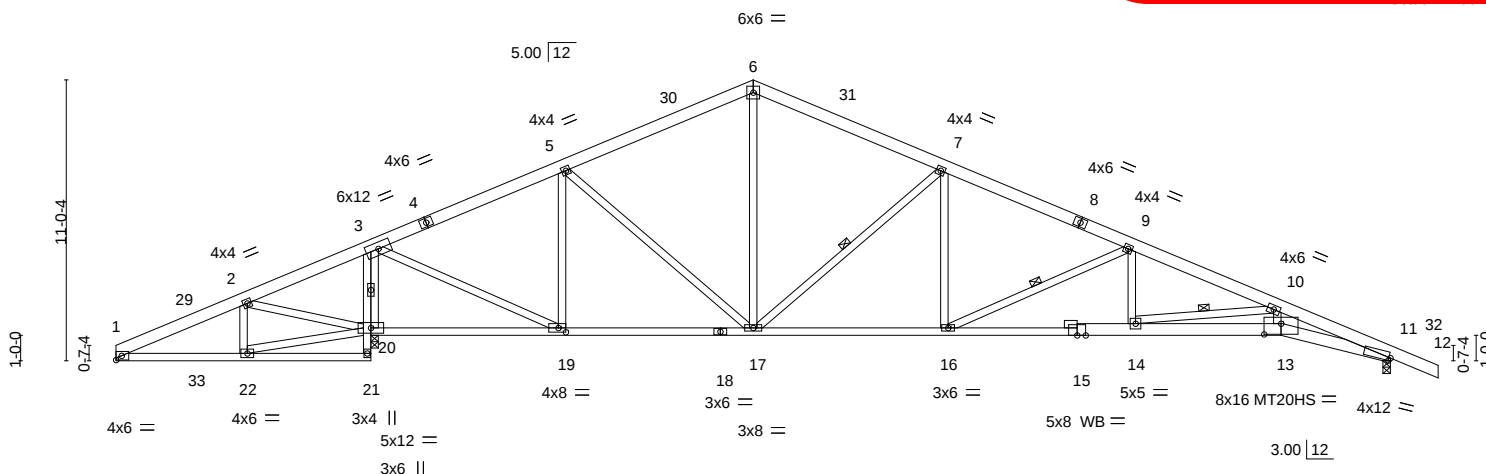
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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

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ID:m1t2XGkUFyK2st1aXRSPCfy84v9-m7HrXMTb6CmJAsRigsJDhTL6AedmM22lkj2zTic5

5-0-1	10-0-0	17-6-0	25-0-0	31-10-14	32-6-0	40-0-0	45-8-8	50-0-0	51-10-8
5-0-1	4-11-15	7-6-0	7-6-0	6-10-13	0-7-3	7-6-0	5-8-8	4-3-8	1-10-8



5-0-1	10-0-0	17-6-0	25-0-0	27-10-4	32-6-0	36-9-6	40-0-0	45-8-8	50-0-0
5-0-1	4-11-15	7-6-0	7-6-0	2-10-4	4-7-12	4-3-6	3-2-10	5-8-8	4-3-8

Plate Offsets (X,Y)-- [11:0-0-12,0-1-6], [13:0-8-0,0-5-0], [19:0-3-8,0-2-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.57	Vert(LL)	-0.32 13-14	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.99	Vert(CT)	-0.58 13-14	>824	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 1.00	Horz(CT)	0.21 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 262 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
11-13,13-15: 2x6 SPF 2100F 1.8E	WEBS 1 Row at midpt 7-17, 9-16, 10-14
WEBS 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS. (size) 11=0-3-8, 20=0-3-8 (req. 0-4-6)
Max Horz 20=-126(LC 17)
Max Uplift 11=-142(LC 13), 20=-228(LC 8)
Max Grav 11=1832(LC 1), 20=2799(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-389/498, 2-3=-1182/1413, 3-5=-1438/132, 5-6=-1749/194, 6-7=-1750/185,
7-9=-2800/257, 9-10=-4131/341, 10-11=-6582/520
BOT CHORD 1-22=-380/372, 3-20=-2534/879, 19-20=-1100/1181, 17-19=0/1229, 16-17=-13/2493,
14-16=-176/3804, 13-14=-406/5787, 11-13=-424/6108
WEBS 10-13=-49/1282, 6-17=-53/752, 5-17=-249/400, 5-19=-887/429, 3-19=-885/2526,
2-22=-366/263, 2-20=-888/845, 20-22=-325/400, 7-16=-22/724, 7-17=-1295/240,
9-14=0/581, 9-16=-1446/199, 10-14=-2012/233

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 51-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) All plates are MT20 plates unless otherwise indicated.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) WARNING: Required bearing size at joint(s) 20 greater than input bearing size.
 - 6) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=142, 20=228.
 - 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.



April 6, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW CODES ADMINISTRATION LEE'S SUMMIT, MISSOURI
2731404	A6	ROOF SPECIAL	2	1	Job Reference (optional)	14510749

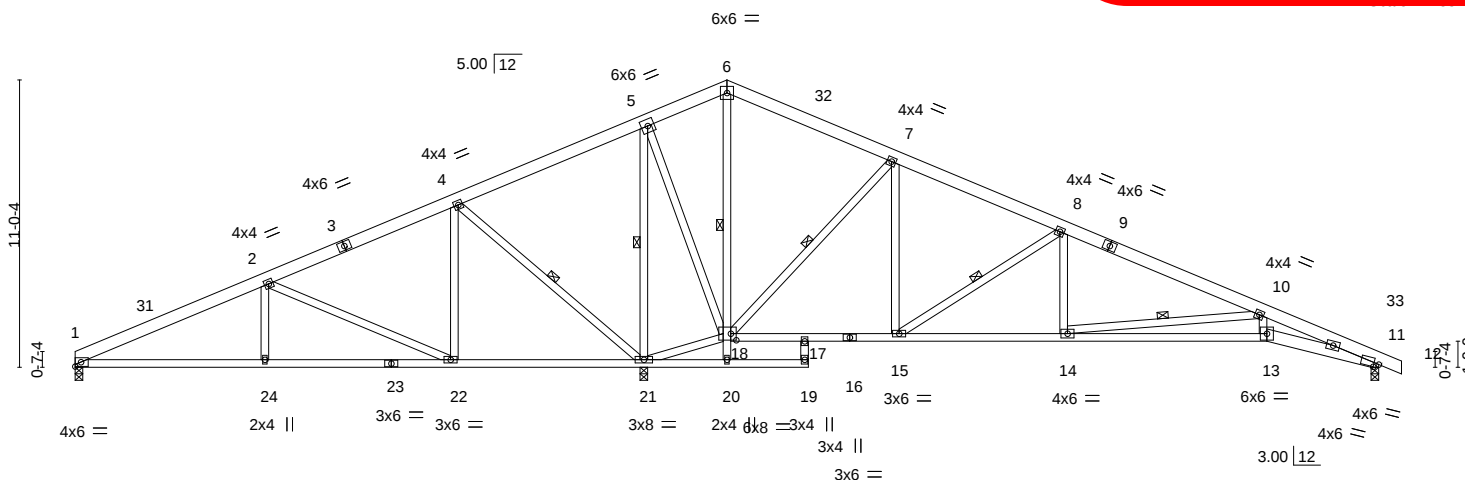
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:m1t2XGkUFyK2st1aXRSPCfy84v9-EKrdhtM7Evnti2_PL5Wt1W4N3vWfVHGszTIC4

7-3-5	14-6-9	21-9-12	25-0-0	28-1-8	31-5-8	37-11-0	45-8-8	50-0-0	50-10-8
7-3-5	7-3-4	7-3-4	3-2-4	3-1-8	3-4-0	6-5-8	7-9-8	4-3-8	0-10-8

DATE



7-3-5	14-6-9	21-9-12	25-0-0	28-1-8	31-5-8	37-11-0	45-8-8	50-0-0
7-3-5	7-3-4	7-3-4	3-2-4	3-1-8	3-4-0	6-5-8	7-9-8	4-3-8

Plate Offsets (X,Y)-- [11:0-2-4,0-1-10], [18:0-2-8,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.19 13-14	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.38 13-14	>887	180		
BCLL 0.0	Rep Stress Incr	YES	WB 1.00	Horz(CT)	0.10 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 268 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
11-13: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-21, 5-21, 6-20, 10-14, 7-18, 8-15

REACTIONS.

(size) 1=0-3-8, 11=0-3-8, 21=0-3-8 (req. 0-5-6)
Max Horz 1=-117(LC 17)
Max Uplift 1=-132(LC 26), 11=-91(LC 13), 21=-106(LC 12)
Max Grav 1=592(LC 25), 11=882(LC 26), 21=3422(LC 1)

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

TOP CHORD 1-2=-836/628, 2-4=-46/1056, 4-5=-105/1732, 5-6=0/1010, 6-7=-6/1084, 7-8=-101/289,
8-10=-1035/165, 10-11=-2817/350
BOT CHORD 1-24=-538/719, 22-24=-538/719, 21-22=-952/213, 14-15=-16/902, 13-14=-272/2472,
11-13=-276/2625
WEBS 2-24=0/294, 2-22=-920/186, 4-22=-10/546, 4-21=-1056/206, 5-21=-2153/277,
6-18=-1006/90, 8-14=0/448, 10-14=-1585/265, 10-13=0/652, 5-18=-126/1589,
18-21=-1550/354, 7-18=-1147/224, 7-15=-49/710, 8-15=-1072/189

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- WARNING: Required bearing size at joint(s) 21 greater than input bearing size.
- Bearing at joint(s) 11 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) 11 except (jt=lb) 1=132, 21=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.



April 6, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A6A	ROOF SPECIAL	2	1	

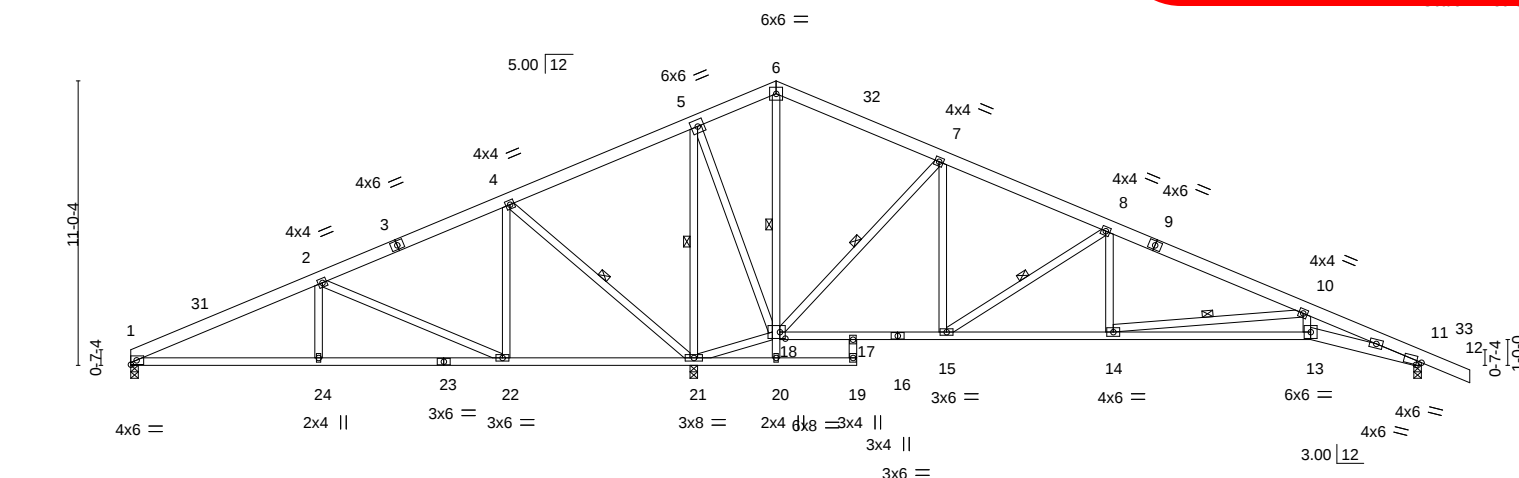
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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

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7-3-5	14-6-9	21-9-12	25-0-0	28-1-8	31-5-8	37-11-0	45-8-8	50-0-0	51-10-8
7-3-5	7-3-4	7-3-4	3-2-4	3-1-8	3-4-0	6-5-8	7-9-8	4-3-8	1-10-8

DATE



7-3-5	14-6-9	21-9-12	25-0-0	28-1-8	31-5-8	37-11-0	45-8-8	50-0-0
7-3-5	7-3-4	7-3-4	3-2-4	3-1-8	3-4-0	6-5-8	7-9-8	4-3-8

Plate Offsets (X,Y)-- [11:0-2-4,0-1-10], [18:0-2-8,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.18 13-14	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.38 13-14	>898	180		
BCLL 0.0	Rep Stress Incr	YES	WB 1.00	Horz(CT)	0.09 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 270 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
11-13: 2x6 SPF No.2	WEBS 1 Row at midpt 4-21, 5-21, 6-20, 10-14, 7-18, 8-15
WEBS 2x4 SPF No.2	

REACTIONS. (size) 1=0-3-8, 11=0-3-8, 21=0-3-8 (req. 0-5-5)
Max Horz 1=-126(LC 17)
Max Uplift 1=-124(LC 26), 11=-106(LC 13), 21=-103(LC 12)
Max Grav 1=594(LC 25), 11=961(LC 26), 21=3405(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-841/610, 2-4=-22/1037, 4-5=-84/1713, 5-6=0/995, 6-7=0/1070, 7-8=-113/286,
8-10=-1038/179, 10-11=-2768/332
BOT CHORD 1-24=-522/724, 22-24=-522/724, 21-22=-935/213, 14-15=-11/905, 13-14=-249/2420,
11-13=-251/2567
WEBS 2-24=0/294, 2-22=-919/186, 4-22=-10/546, 4-21=-1056/206, 5-21=-2141/264,
6-18=-995/84, 8-14=0/446, 10-14=-1530/248, 10-13=0/628, 5-18=-118/1579,
18-21=-1533/353, 7-18=-1142/223, 7-15=-46/705, 8-15=-1063/183

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 51-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - WARNING: Required bearing size at joint(s) 21 greater than input bearing size.
 - Bearing at joint(s) 11 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) 1=124, 11=106, 21=103.
 - 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.



April 6, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A7	Roof Special	1	1	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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

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6-3-1 7-3-5 12-6-1 14-6-9 18-9-1 21-9-12 25-0-0 28-1-8 30-6-2 35-10-8 42-11-3 50-0-0 50-10-8
6-3-1 1-0-4 5-2-12 2-0-8 4-2-8 3-0-12 3-2-4 3-1-8 2-4-10 5-4-6 7-0-11 7-0-13 0-10-8

DATE

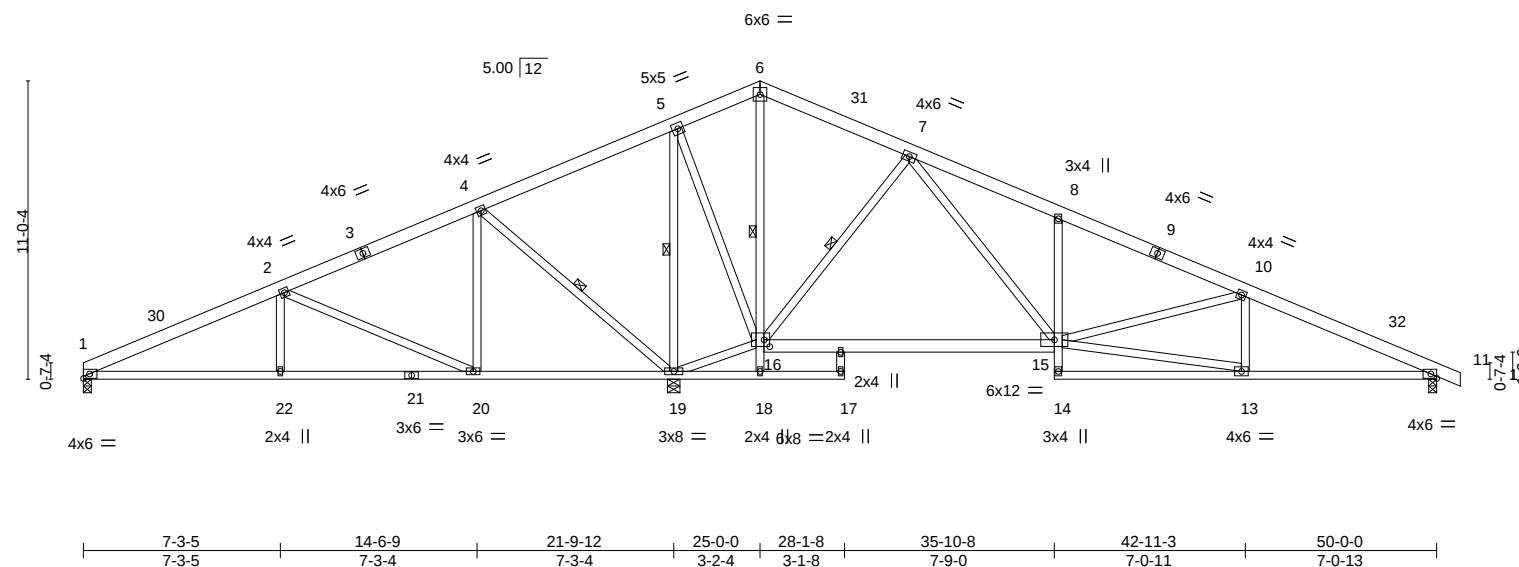


Plate Offsets (X,Y)-- [16:0-2-8,0-3-0]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.17 15-16	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	-0.36 15-16	>938	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.97	Horz(CT)	0.05 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 277 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
15-16: 2x6 SPF No.2	WEBS 1 Row at midpt 6-18, 5-19, 7-16, 4-19
WEBS 2x4 SPF No.2	

REACTIONS. (size) 1=0-3-8, 11=0-3-8, 19=0-5-8
Max Horz 1=-117(LC 17)
Max Uplift 1=-55(LC 12), 11=-103(LC 13), 19=-99(LC 12)
Max Grav 1=654(LC 25), 11=1052(LC 26), 19=3139(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-984/136, 2-4=-168/537, 4-5=-42/1258, 5-6=0/590, 6-7=0/631, 7-8=-1235/254, 8-10=-1251/179, 10-11=-1814/243
BOT CHORD 1-22=-142/855, 20-22=-142/855, 19-20=-472/165, 15-16=-182/300, 8-15=-422/149, 11-13=-144/1596
WEBS 13-15=-105/1589, 10-15=-603/160, 6-16=-636/39, 5-19=-1995/216, 5-16=-64/1439, 16-19=-1152/291, 7-16=-1069/243, 7-15=-165/1277, 4-19=-1056/204, 4-20=-8/544, 2-20=-888/182, 2-22=0/290

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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, 19 except (jt=lb) 11=103.
 - 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.



April 6, 2021

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/86 Hawthorne
2731404	A8	Roof Special	4	1	

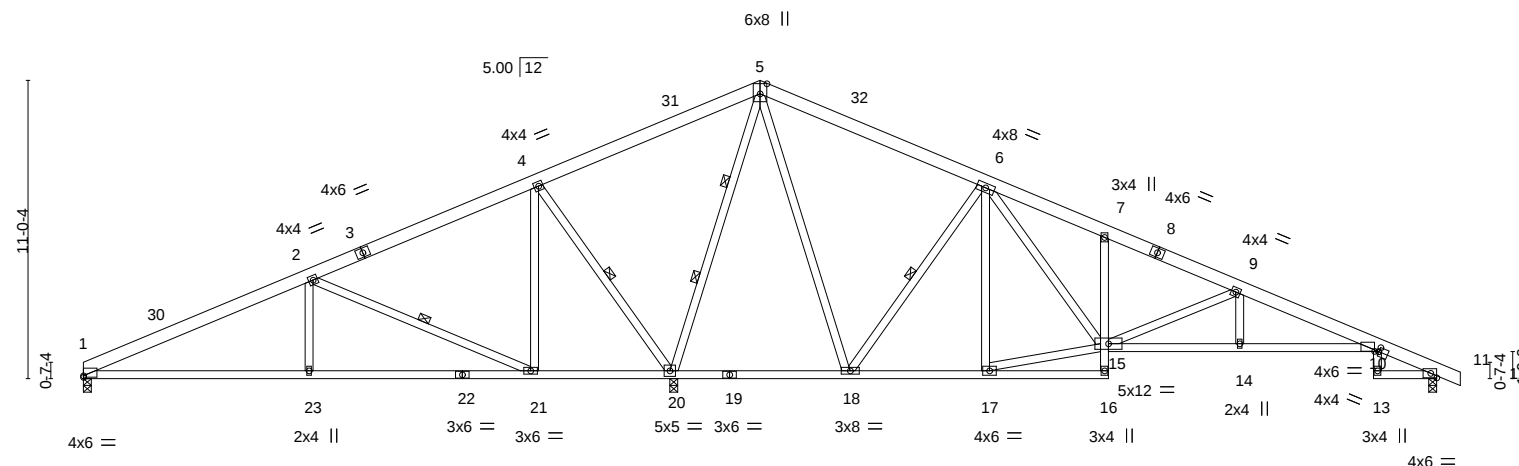
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:57 2021 Page 1

ID:m1t2XGkUFyK2st1aXRSPCfy84v9-754kcFCe17GvTUopDEQ1wMwR0MslJwc59HTVPDzTiC0

8-4-1	16-8-1	25-0-0	31-5-4	33-2-4	37-10-8	42-8-11	47-8-0	50-0-0
8-4-1	8-4-0	8-4-0	6-5-4	1-9-0	4-8-4	4-10-3	4-11-5	2-4-0



8-4-1	16-8-1	21-8-0	25-0-0	28-4-0	31-5-4	33-2-4	37-10-8	42-8-11	47-8-0	50-0-0
8-4-1	8-4-0	5-0-0	3-4-0	3-4-0	3-1-4	1-9-0	4-8-4	4-10-3	4-11-5	2-4-0

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.97	Vert(LL)	-0.26 10-14	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.44 10-14	>761	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.83	Horz(CT)	0.12 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 257 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 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 *Except*	WEBS 1 Row at midpt 2-21, 4-20, 6-18
5-20,5-18: 2x4 SPF 1650F 1.5E	2 Rows at 1/3 pts 5-20

REACTIONS. (size) 1=0-3-8, 11=0-3-8, 20=0-3-8 (req. 0-5-14)
Max Horz 1=-117(LC 13)
Max Uplift 1=-340(LC 26), 11=-79(LC 13), 20=-123(LC 13)
Max Grav 1=528(LC 25), 11=725(LC 26), 20=3752(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-609/1180, 2-4=-114/1698, 4-5=-136/2277, 5-6=0/1061, 6-7=-343/170,
7-9=-436/119, 9-10=-1365/201, 10-11=-346/89
BOT CHORD 1-23=-1038/506, 21-23=-1038/506, 20-21=-1544/277, 18-20=-1174/298, 17-18=-260/128,
14-15=-103/1291, 10-14=-104/1291
WEBS 2-23=0/357, 2-21=-1097/213, 4-21=-26/565, 9-15=-1071/177, 4-20=-1104/235,
6-18=-1077/236, 5-20=-2861/378, 5-18=-145/1035, 15-17=-281/131, 6-15=-105/774

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - WARNING: Required bearing size at joint(s) 20 greater than input bearing size.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 1=340, 20=123.
 - 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.



April 6, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A9	Common	1	1	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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

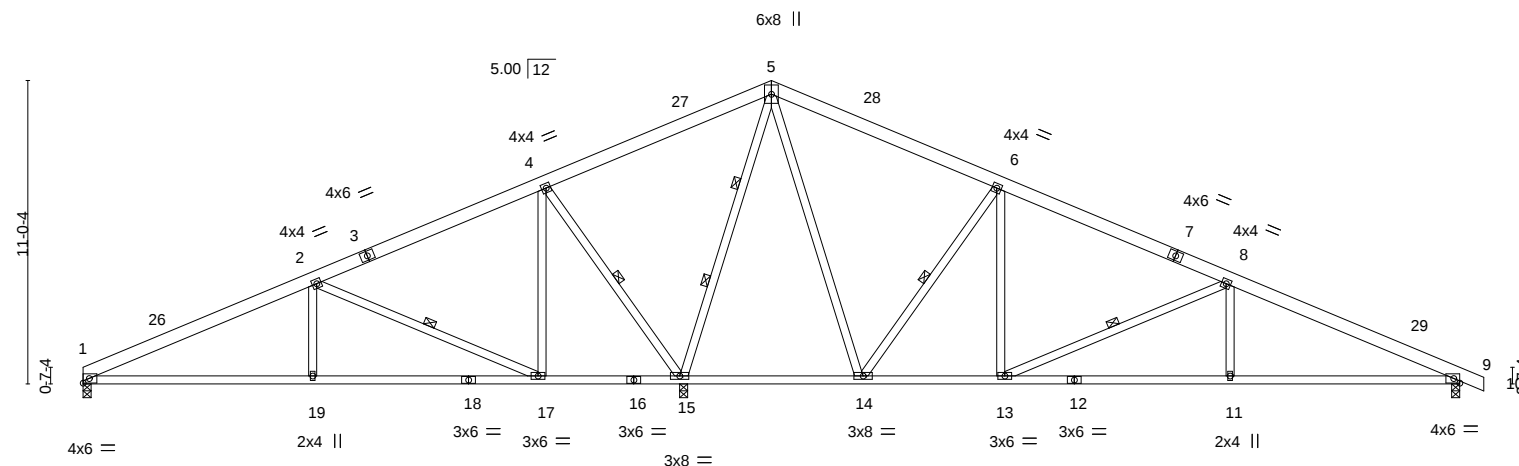
8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:59 2021 Page 1

ID:m1t2XGkUFyK2st1aXRSPCy84v9-3UCUQvRuqIWd8CCLgSV?n?vXAb2npCOcbybT5zTIC

Job Reference (optional)

8-4-1	16-8-1	25-0-0	33-4-0	41-7-15	50-0-0	50-10-8
8-4-1	8-4-0	8-4-0	8-4-0	8-4-0	8-4-1	0-10-8

DATE



8-4-1	16-8-1	21-8-0	25-0-0	28-4-0	33-4-0	41-7-15	50-0-0
8-4-1	8-4-0	5-0-0	3-4-0	3-4-0	5-0-0	8-4-0	8-4-1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.11 11-13	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.59	Vert(CT)	-0.25 11-13	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.04 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						

Weight: 243 lb	FT = 20%
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LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 8-13, 2-17, 4-15, 6-14
2 Rows at 1/3 pts 5-15

REACTIONS. (size) 1=0-3-8, 9=0-3-8, 15=0-3-8 (req. 0-4-11)
Max Horz 1=-117(LC 13)
Max Uplift 1=-57(LC 12), 9=-112(LC 13), 15=-116(LC 12)
Max Grav 1=680(LC 25), 9=1078(LC 26), 15=3004(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-976/148, 2-4=0/547, 4-5=0/1205, 5-6=-186/269, 6-8=-857/200, 8-9=-1800/266
BOT CHORD 1-19=-134/841, 17-19=-134/841, 15-17=-478/152, 14-15=-410/200, 13-14=0/692,
11-13=-153/1573, 9-11=-153/1573
WEBS 6-13=-19/544, 8-13=-980/190, 8-11=0/344, 4-17=-23/550, 2-17=-1037/205, 2-19=0/351,
5-15=-2087/276, 5-14=-150/1039, 4-15=-1100/235, 6-14=-1094/234

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCLL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=112, 15=116.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 6, 2021

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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/86 Hawthorne
2731404	A10	GABLE	1	1	

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

CODES ADMINISTRATION

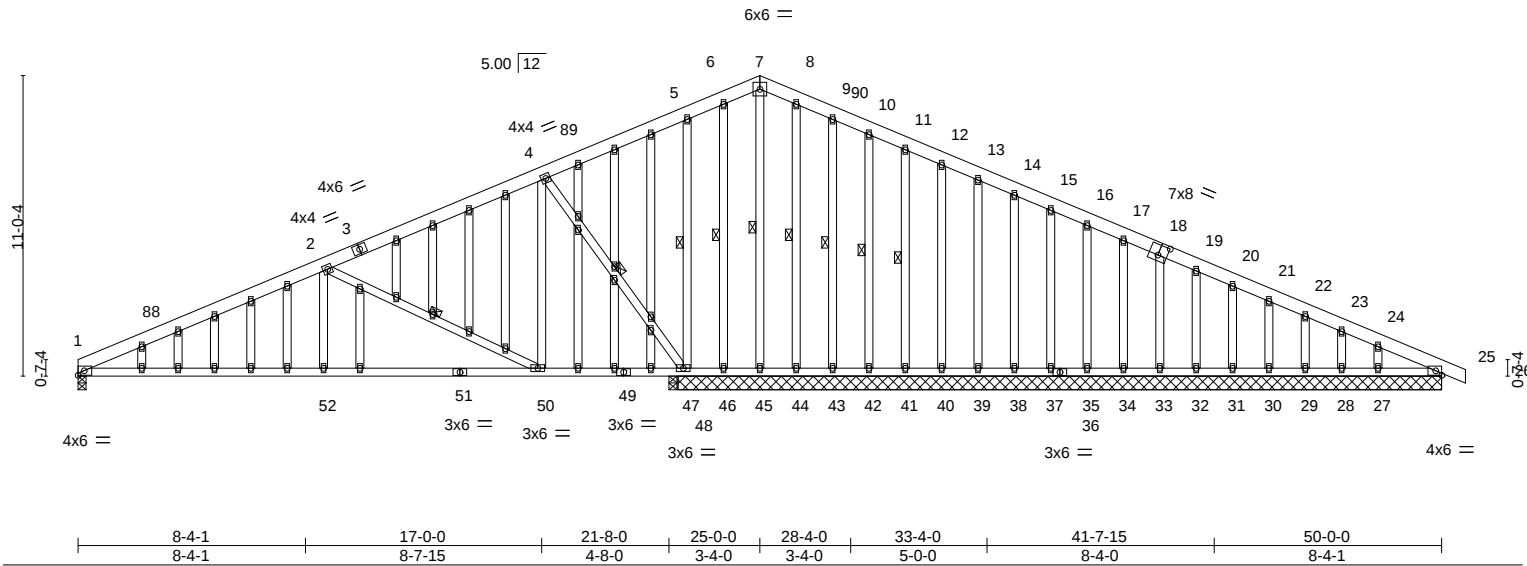
LEE'S SUMMIT, MISSOURI

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:45 2021 Page 1

ID:m1t2XGkUFyK2st1aXRSPCfy84v9-TnMC48G6RLc1e8VWkCDQqQYTWpwVbbkOQZszvzTiCC

DATE 8-4-1 0-10-8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.37	Vert(LL)	-0.10 52-84	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.22 52-84	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.38	Horz(CT)	0.03 47	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 384 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 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	WEBS 1 Row at midpt 2-50, 7-45, 6-46, 5-47, 8-44, 9-43, 10-42, 11-41, 4-47
OTHERS 2x4 SPF No.2	

REACTIONS. All bearings 28-0-0 except (jt=length) 1=0-3-8, 48=0-3-8.
 (lb) - Max Horz 1=-117(LC 13)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 43, 42, 41, 40, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29, 28, 27, 25 except 25=-139(LC 25), 47=-195(LC 12)
 Max Grav All reactions 250 lb or less at joint(s) 25, 46, 44, 43, 42, 41, 40, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29, 28, 27, 48 except 1=838(LC 1), 45=284(LC 1), 47=982(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-1310/258, 2-4=-352/184, 4-5=0/468, 5-6=0/414, 6-7=0/403, 7-8=0/406, 8-9=0/427, 9-10=0/423, 10-11=0/421, 11-12=0/420, 12-13=0/420, 13-14=0/420, 14-15=0/420, 15-16=0/420, 16-17=0/420, 17-18=-13/420, 18-19=-32/420, 19-20=-51/420, 20-21=-70/420, 21-22=-90/420, 22-23=-109/421, 23-24=-125/410, 24-25=-158/446
 BOT CHORD 1-52=-137/1142, 50-52=-137/1142, 46-47=-375/168, 45-46=-375/168, 44-45=-375/168, 43-44=-375/168, 42-43=-375/168, 41-42=-375/168, 40-41=-375/168, 39-40=-375/168, 38-39=-375/168, 37-38=-375/168, 35-37=-375/168, 34-35=-375/168, 33-34=-375/168, 32-33=-375/168, 31-32=-375/168, 30-31=-375/168, 29-30=-375/168, 28-29=-375/168, 27-28=-375/168, 25-27=-375/168
 WEBS 4-50=-32/583, 2-50=-1034/208, 2-52=0/352, 7-45=-260/0, 5-47=-260/110, 4-47=-994/195

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - 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) 1, 43, 42, 41, 40, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29, 28, 27 except (jt=lb) 25=139, 47=195, 25=139.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 6, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A10	GABLE	1	1	Job Reference (optional)

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:46 2021 Page 2
ID:m1t2XGkUFyK2st1aXRSPCy84v9-xv9alUHkRSeoji4RjSz2zjDw99E2rUd4IPWMzTiCB

NOTES-

- 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.

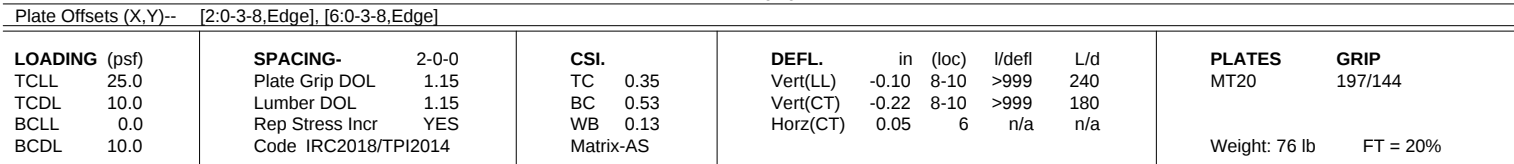
RELEASE FOR CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 CODES ADMINISTRATION
 LEE'S SUMMIT, MISSOURI



8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:00 2021 Page 1
ID:m1t2XGkUFvK2st1aXRSPCfv84v9-XgmtEG-Wa2eTb7YQvNzkX?Y6wZvDWSKYrFh9 YzTiB

0-10-8	5-6-1	11-0-0	16-5-15	22-0-0	22-10-8
0-10-8	5-6-1	5-5-15	5-5-15	5-6-1	0-10-8

DATE 5-6-1 0-10-8



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=-87(LC 13)
 Max Uplift 2=-187(LC 12), 6=-187(LC 13)
 Max Grav 2=1051(LC 1), 6=1051(LC 1)

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

TOP CHORD	2-3--1814/398, 3-4--1608/384, 4-5--1608/384, 5-6--1814/398
BOT CHORD	2-10--303/1610, 8-10--151/1126, 6-8--299/1610
WEBS	4-8--113/521, 5-8--352/189, 4-10--113/521, 3-10--352/188

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 22-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=187, 6=187.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 6, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	B2	GABLE	1	1	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:01 2021 Page 1

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0-10-8, 11-0-0, 22-0-0, 22-10-8, 0-10-8, 11-0-0, 0-10-8

DATE

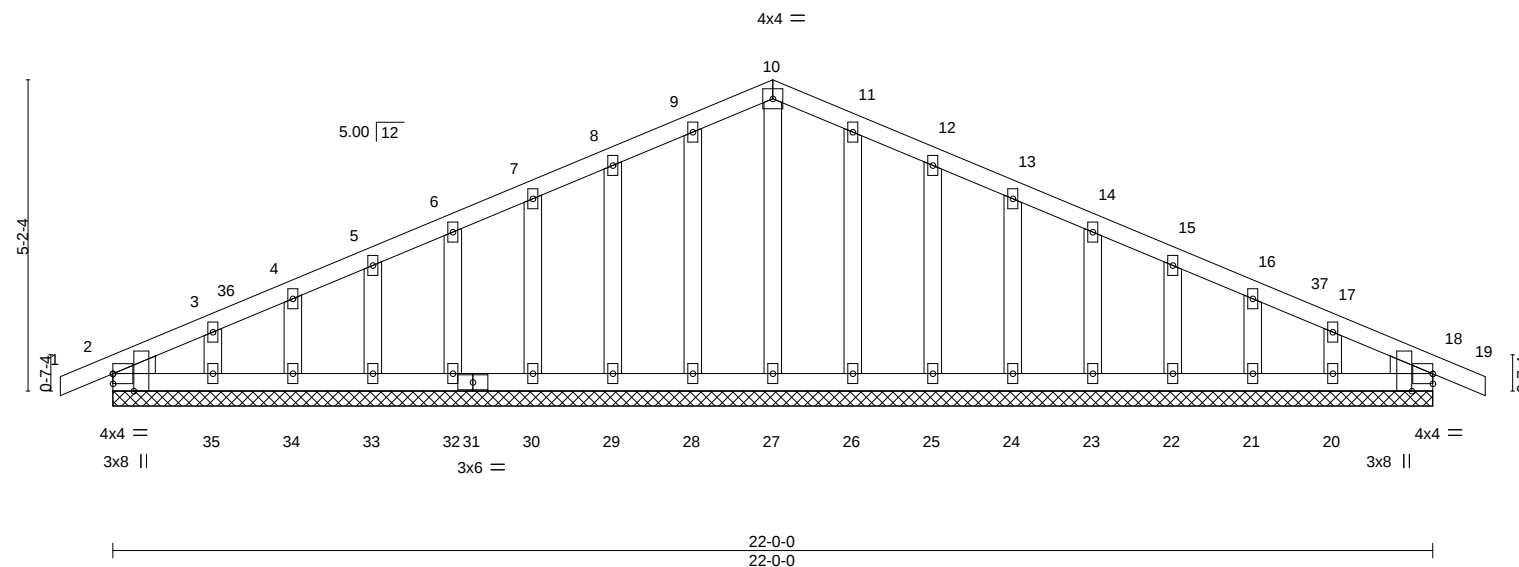


Plate Offsets (X,Y)-- [2:0-3-7,Edge], [18:0-3-7,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	18	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	19	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 100 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 22-0-0.
(lb) - Max Horz 2--87(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 2, 28, 29, 30, 32, 33, 34, 35, 18, 26, 25, 24, 23, 22, 21, 20
Max Grav All reactions 250 lb or less at joint(s) 2, 27, 28, 29, 30, 32, 33, 34, 35, 18, 26, 25, 24, 23, 22, 21, 20

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 11-0-0, Corner(3R) 11-0-0 to 14-0-0, Exterior(2N) 14-0-0 to 22-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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, 28, 29, 30, 32, 33, 34, 35, 18, 26, 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.



April 6, 2021

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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/86 Hawthorne
2731404	C1	GABLE	1	1	14510757
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:02 2021 Page 1

ID:m1t2XGkUFyK2st1aXRSPCy84v9-T3tdfTm6guBZfXn00CdQdX9NmW_NJqlZAG3QzTiBx

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DATE 0-10-8

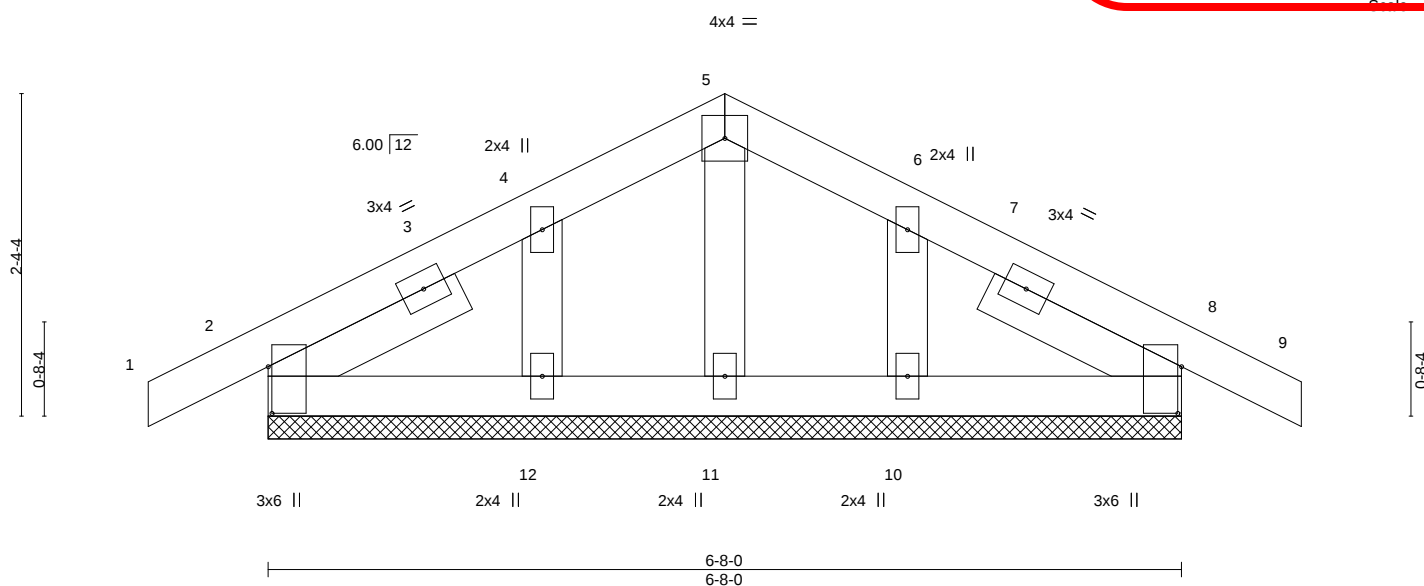


Plate Offsets (X,Y)--		[2:0-4-1,0-0-5], [8:0-4-1,0-0-5]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.05	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(LL) -0.00 8 n/r 120
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Vert(CT) -0.00 8 n/r 120
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P	Horz(CT) 0.00 8 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 27 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 -t 1-6-10, Right 2x4 SPF No.2 -t 1-6-10

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 6-8-0.
(lb) - Max Horz 2=37(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 12, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 11, 12, 10

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 3-4-0, Corner(3R) 3-4-0 to 6-4-0, Exterior(2N) 6-4-0 to 7-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 1-4-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 12, 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 6, 2021

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

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

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/86 Hawthorne
2731404	CJ1	Diagonal Hip Girder	2	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:03 2021 Page 1

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1-2-14 2-9-3 5-6-6
1-2-14 2-9-3 2-9-3

DATE _____

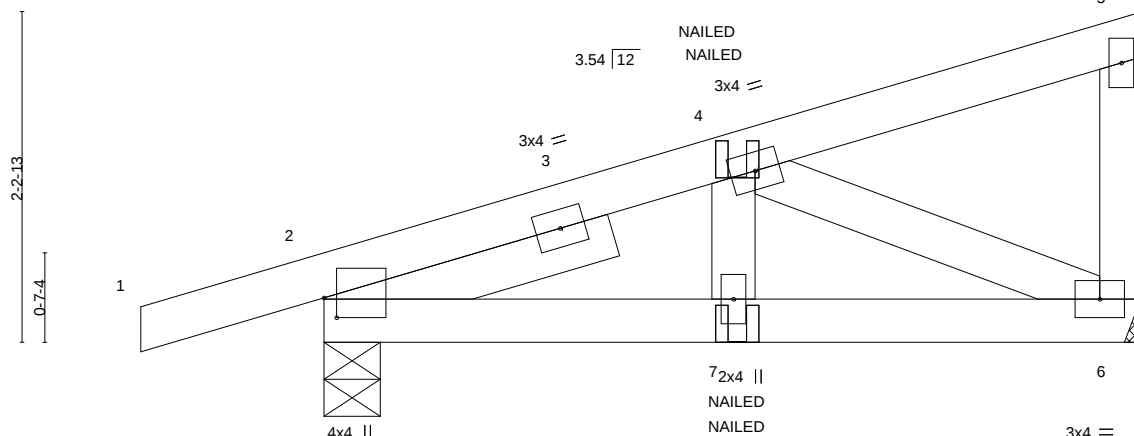


Plate Offsets (X,Y)-- [2:0-1-10,0-1-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01	7	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 22 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 -t 2-0-0

BRACING-

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

REACTIONS.

(size) 2=0-4-9, 6=Mechanical
Max Horz 2=86(LC 7)
Max Uplift 2=-118(LC 4), 6=-70(LC 8)
Max Grav 2=346(LC 1), 6=240(LC 1)

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

TOP CHORD 2-4=-311/93
BOT CHORD 2-7=-92/313, 6-7=-92/313
WEBS 4-6=-341/121

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=118.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 6-8=-20
Concentrated Loads (lb)
Vert: 7=-14(F=-7, B=-7)



April 6, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	D1	Hip Girder	1	1	

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AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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

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0-10-8 4-0-0 8-0-0 12-0-0 12-10-8
0-10-8 4-0-0 4-0-0 4-0-0 0-10-8

DATE

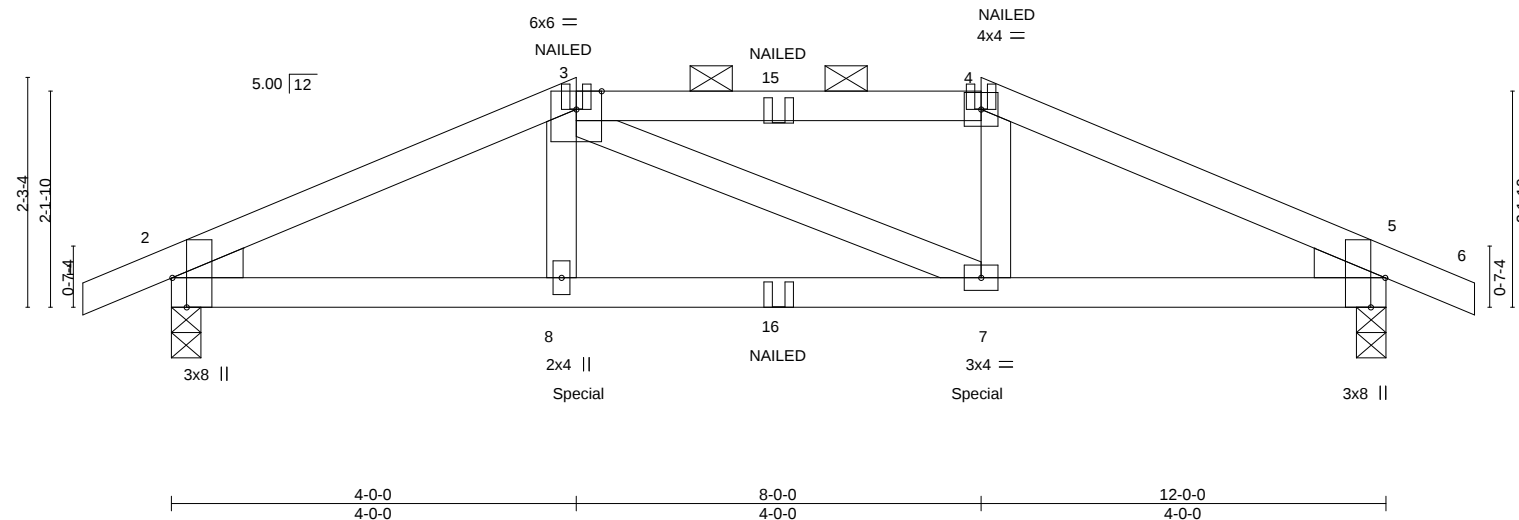


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [5:0-3-8,Edge]		4-0-0 4-0-0		8-0-0 4-0-0		12-0-0 4-0-0	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	-0.06	7-8	>999
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.11	7-8	>999
BCLL 0.0	Rep Stress Incr	NO	WB 0.07	Horz(CT)	0.03	5	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS				
				PLATES			GRIP
				MT20			197/144
				Weight: 41 lb			FT = 20%

LUMBER-

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

Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 5=0-3-8
Max Horz 2=35(LC 33)
Max Uplift 2=-262(LC 8), 5=-262(LC 9)
Max Grav 2=933(LC 1), 5=933(LC 1)

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

TOP CHORD 2-3=-1618/472, 3-4=-1430/452, 4-5=-1619/472
BOT CHORD 2-8=-412/1451, 7-8=-408/1429, 5-7=-384/1452
WEBS 3-8=-54/298, 4-7=-60/305

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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) except (jt=lb) 2=262, 5=262.
- 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.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 246 lb down and 117 lb up at 4-0-0, and 246 lb down and 117 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



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Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	D1	Hip Girder	1	1	Job Reference (optional)

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:04 2021 Page 2
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AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 4=-46(B) 8=-246(B) 7=-246(B) 3=-46(B) 15=-46(B) 16=-34(B)

DATE



Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	D2	Common	3	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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DATE _____

Scale: 1/8" = 1'-0"

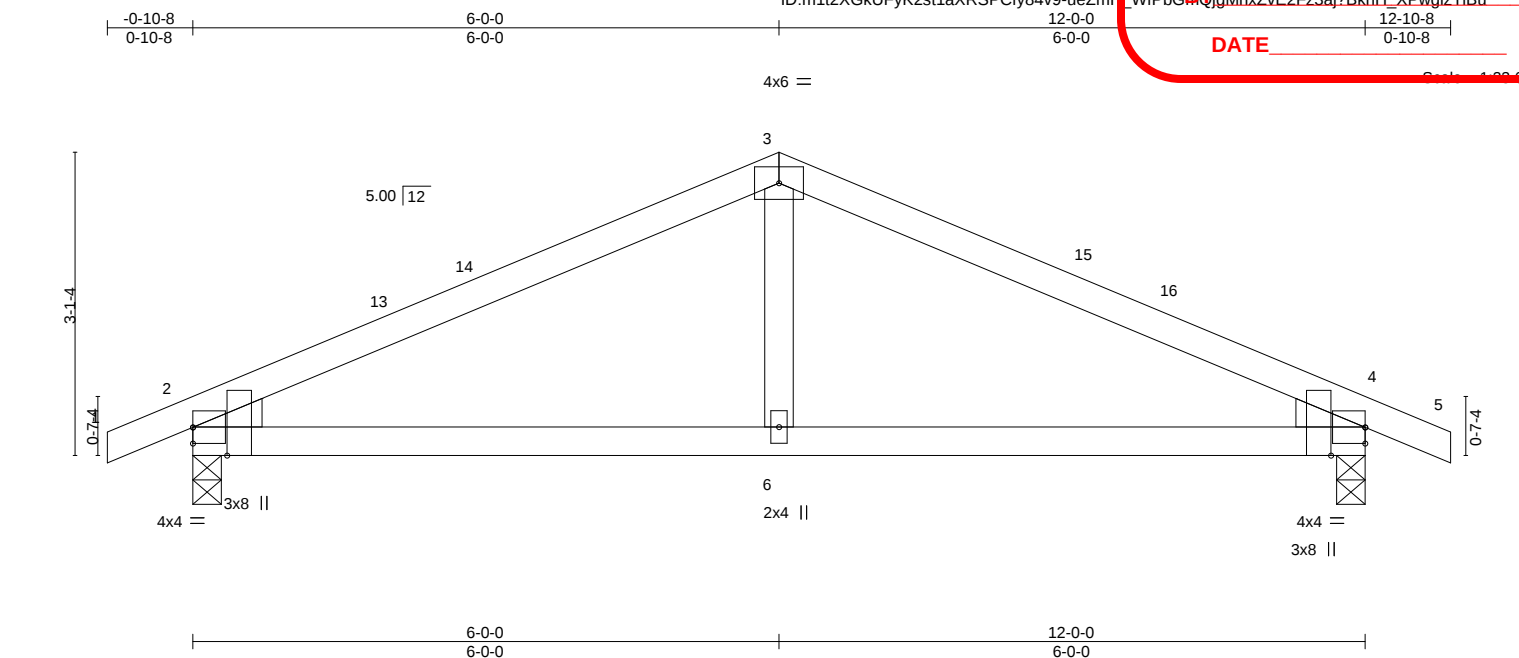


Plate Offsets (X,Y)-- [2:0-3-7,Edge], [4:0-3-7,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.04 6-12 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07 6-12 >999 180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01 2 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 35 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
 Max Horz 2=50(LC 16)
 Max Uplift 2=-111(LC 12), 4=-111(LC 13)
 Max Grav 2=601(LC 1), 4=601(LC 1)

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

TOP CHORD 2-3=-775/303, 3-4=-775/303
 BOT CHORD 2-6=-172/653, 4-6=-172/653

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=111, 4=111.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 6, 2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	J1	Jack-Open	3	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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

DATE _____

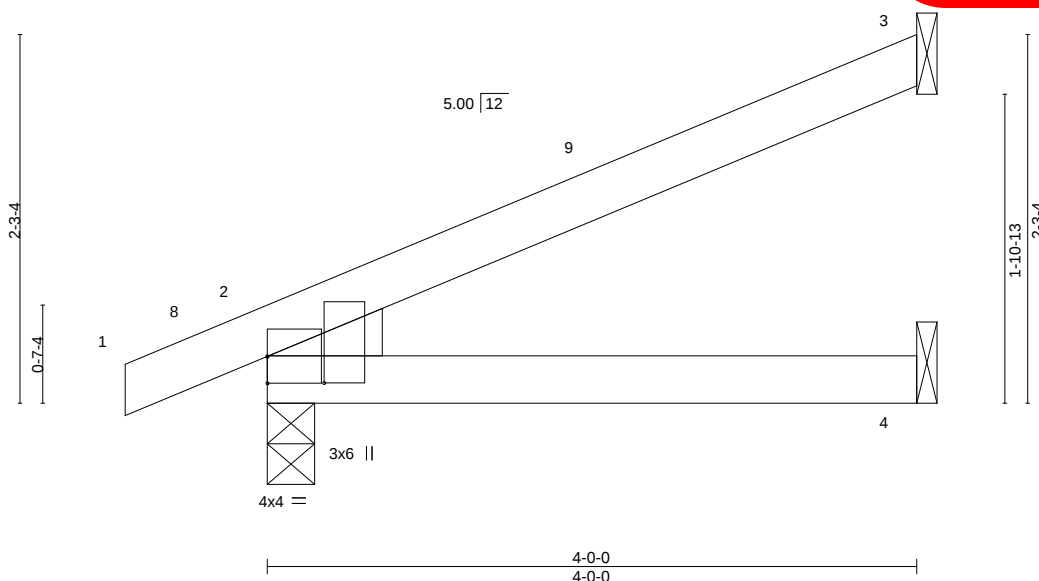


Plate Offsets (X,Y)--		[2:0-1-15,0-4-3]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.19		Vert(LL) 0.02 4-7 >999 240		MT20 197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.15		Vert(CT) -0.03 4-7 >999 180			
BCLL	0.0	Rep Stress Incr YES		WB 0.00		Horz(CT) 0.01 2 n/a n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 12 lb FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.

BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=80(LC 12)

Max Uplift 3=-56(LC 12), 2=-43(LC 12), 4=-1(LC 12)

Max Grav 3=116(LC 1), 2=245(LC 1), 4=71(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 6, 2021

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

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

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/86 Hawthorne
2731404	J2	Jack-Open	4	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:06 2021 Page 1					
ID:M1t2XGkUFyK2st1aXRSPCfy84v9-Mq78UKVHAuPd20YFe48nGoD5_7RwBoQDB8TCCzTiBt					
Job Reference (optional)					

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

DATE _____

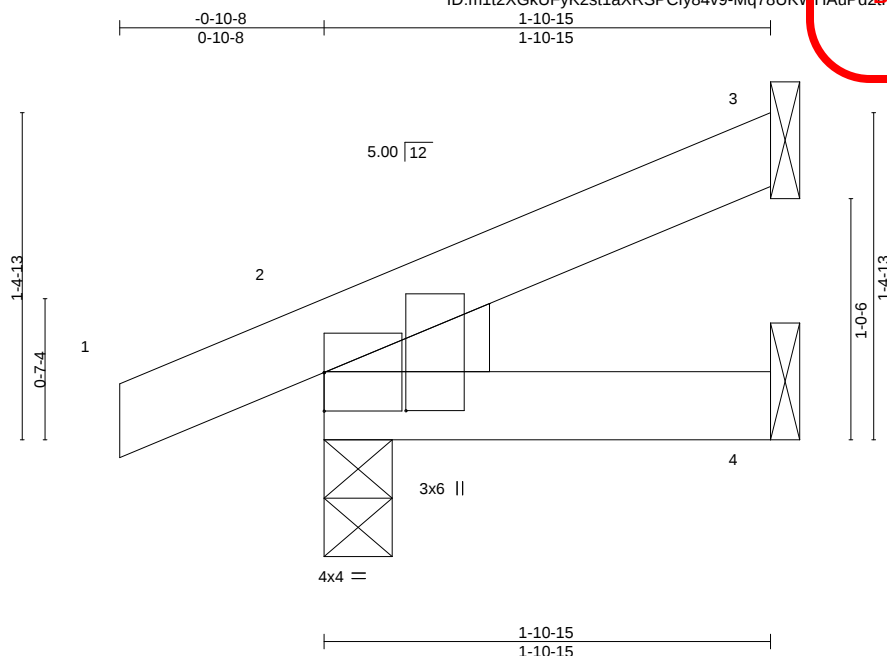


Plate Offsets (X,Y)--	[2:0-1-15,0-4-3]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	7	>999
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	7	>999
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 7 lb	FT = 20%		

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEDGE
 Left: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
 Max Horz 2=45(LC 12)
 Max Uplift 3=-24(LC 12), 2=-32(LC 8), 4=-4(LC 12)
 Max Grav 3=47(LC 1), 2=161(LC 1), 4=32(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V1	GABLE	1	1	

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CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

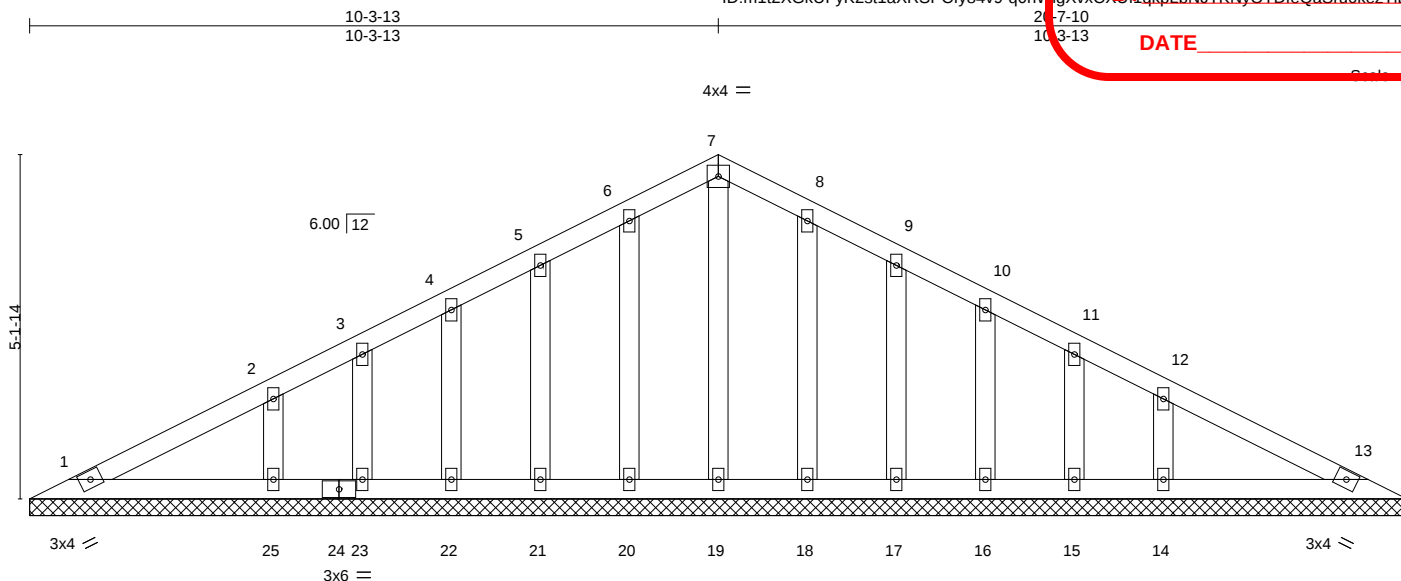
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:07 2021 Page 1

ID:m1t2XGkUFyK2st1aXRSPCy84v9-q0hVgXvxCX0LqkplbNJTknYOTDfeQaSru0kezTIBs

Job Reference (optional)

DATE



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	13	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 83 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 20-7-10.
 (lb) - Max Horz 1=85(LC 13)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 20, 21, 22, 23, 25, 18, 17, 16, 15, 14
 Max Grav All reactions 250 lb or less at joint(s) 1, 13, 19, 20, 21, 22, 23, 18, 17, 16, 15 except 25=280(LC 1), 14=280(LC 1)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-7-7 to 3-7-13, Exterior(2N) 3-7-13 to 10-3-13, Corner(3R) 10-3-13 to 13-3-13, Exterior(2N) 13-3-13 to 20-0-3 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
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 20, 21, 22, 23, 25, 18, 17, 16, 15, 14.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 6, 2021

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

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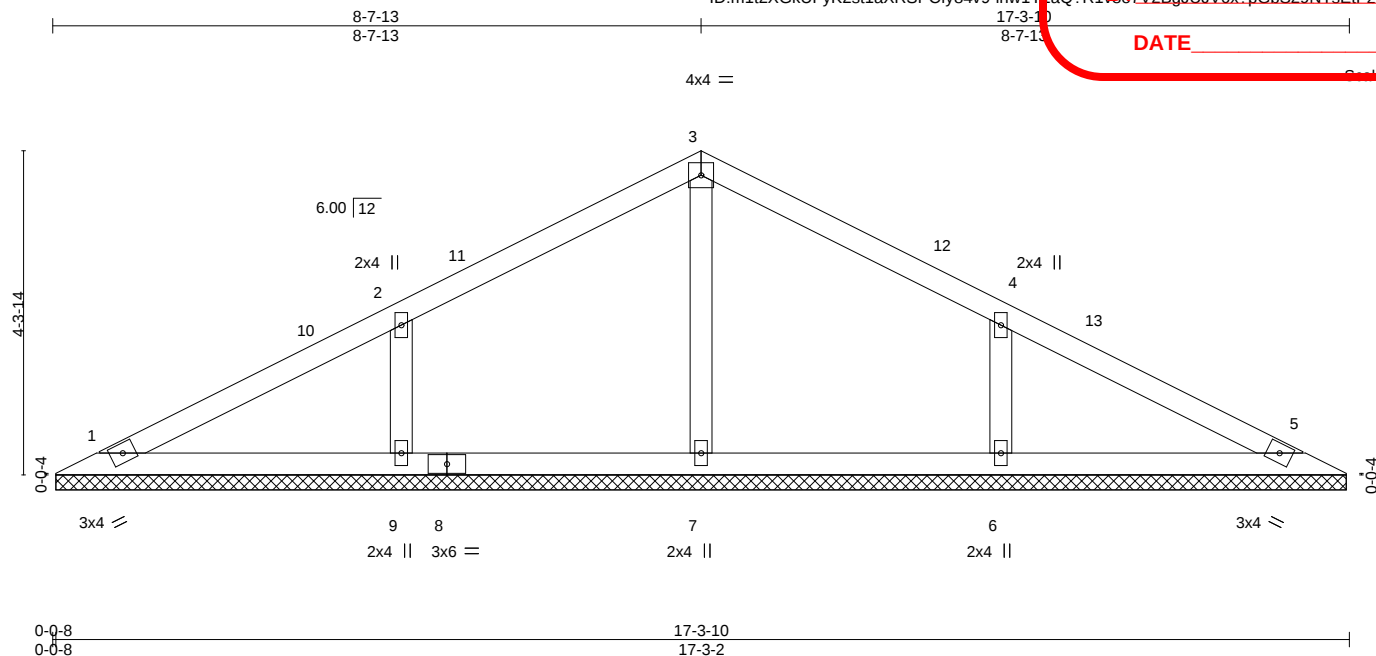
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V2	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

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AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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ID:m1t2XGkUFyK2st1aXRSPCfy84v9-inw1YaaQ?R1V867V2BgJUJVOx?pGbs29NTsEtPzTiBo

DATE



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 48 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 17-2-10.
(lb) - Max Horz 1=-71(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=-151(LC 12), 6=-151(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=286(LC 1), 9=432(LC 25), 6=432(LC 26)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-333/201, 4-6=-333/201

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 8-7-13, Exterior(2R) 8-7-13 to 11-7-13, Interior(1) 11-7-13 to 16-8-1 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
- 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 except (jt=lb) 9=151, 6=151.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

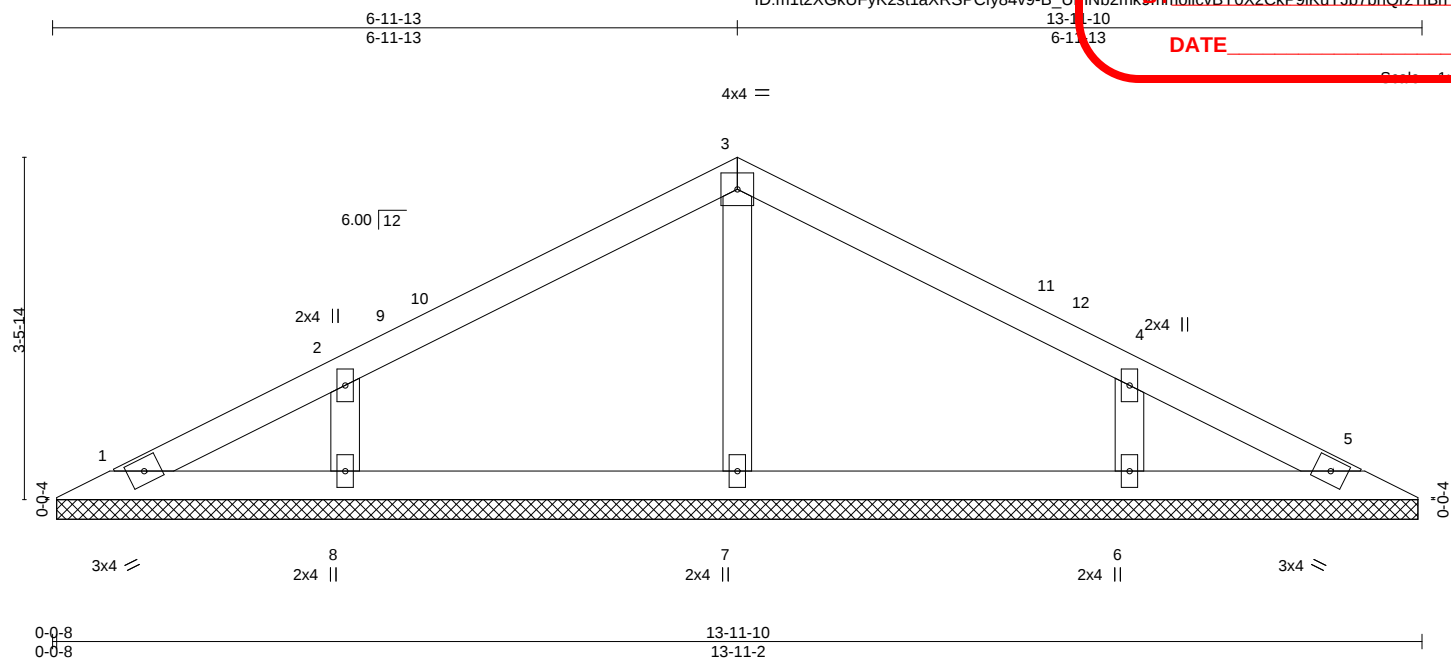
Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V3	Valley	1	1	

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CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:12 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCy84v9-B_UjINb2mk9mhoicvBY0X2CkP9iKuYJb7bnQrzTiBn

DATE



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 37 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 13-10-10.
(lb) - Max Horz 1=-56(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7 except 8=-124(LC 12), 6=-124(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=320(LC 1), 8=348(LC 25), 6=348(LC 26)

FORCES.

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

WEBS

2-8=-278/197, 4-6=-278/197

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-11-13, Exterior(2R) 6-11-13 to 9-11-13, Interior(1) 9-11-13 to 13-4-1 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
- 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, 7 except (jt=lb) 8=124, 6=124.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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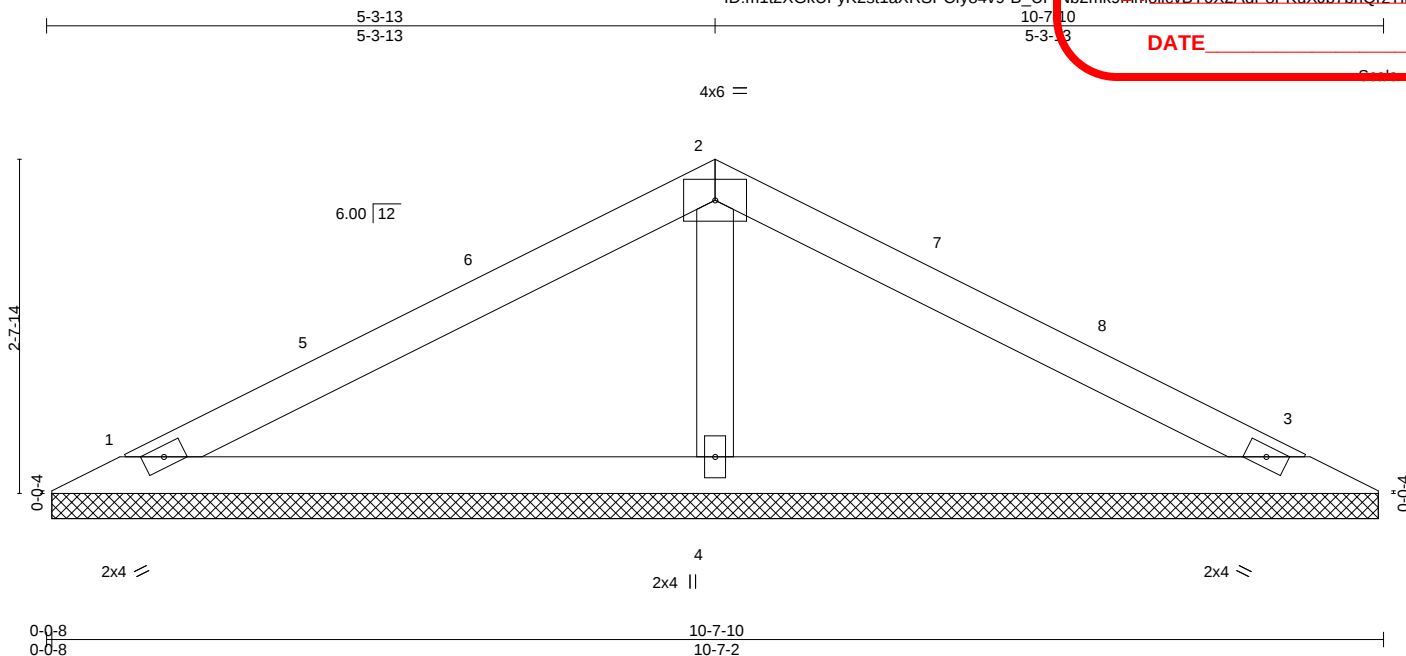
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V4	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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ID:m1t2XGkUFyK2st1aXRSPCfy84v9-B_UPNb2mk9m0iicvBY0X2AdP8PKuXJb7bnQrzTiBn

DATE _____



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 26 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=10-6-10, 3=10-6-10, 4=10-6-10
Max Horz 1=41(LC 16)
Max Uplift 1=-45(LC 12), 3=-53(LC 13), 4=-49(LC 12)
Max Grav 1=195(LC 25), 3=195(LC 26), 4=459(LC 1)

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

WEBS 2-4=-317/189

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-3-13, Exterior(2R) 5-3-13 to 8-3-13, Interior(1) 8-3-13 to 10-0-1 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
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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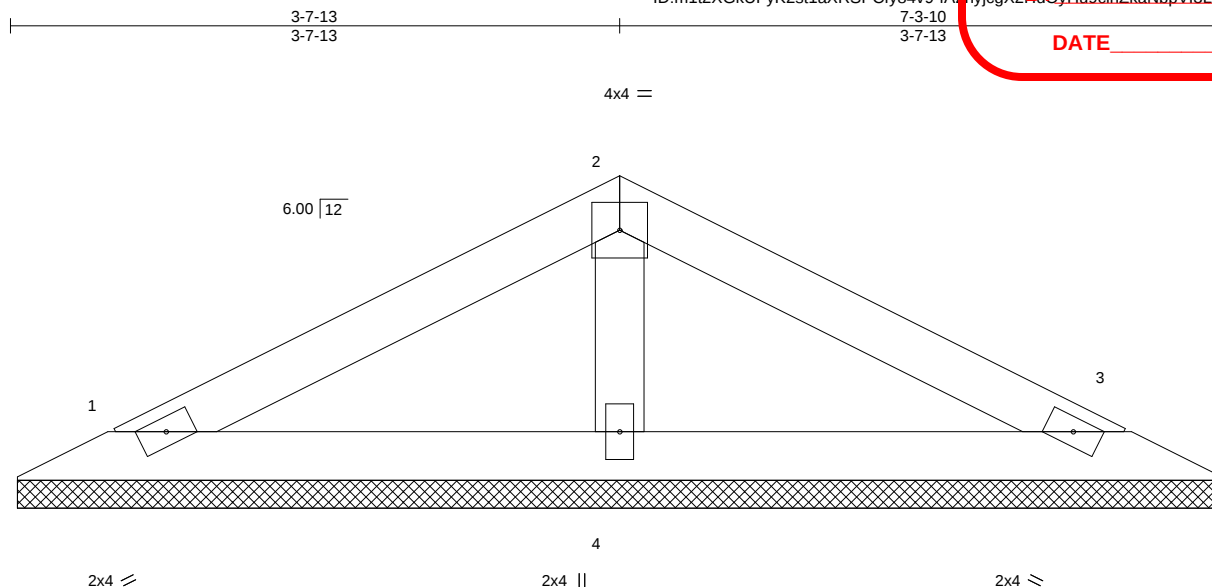
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V5	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:13 2021 Page 1					
ID:m1t2XGkUFyK2st1aXRSPCy84v9-fA3nyjcgX2RdOyHu9cinZkaNbpVl3L8SqnlLylzTiBm					
Job Reference (optional)					

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CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI



0-0-8	7-3-10	7-3-2							
0-0-8	7-3-2								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 17 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-2-10, 3=7-2-10, 4=7-2-10
 Max Horz 1=27(LC 16)
 Max Uplift 1=-36(LC 12), 3=-41(LC 13), 4=-19(LC 12)
 Max Grav 1=138(LC 1), 3=138(LC 1), 4=267(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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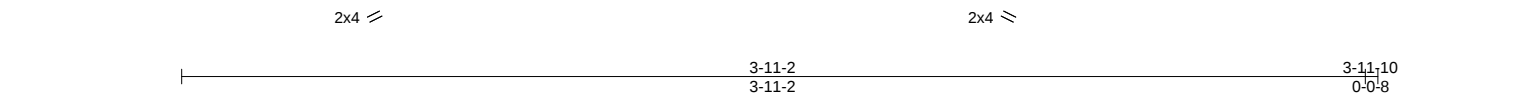


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:14 2021 Page 1

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DATE _____



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-11-10 oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 6, 2021



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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V7	GABLE	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

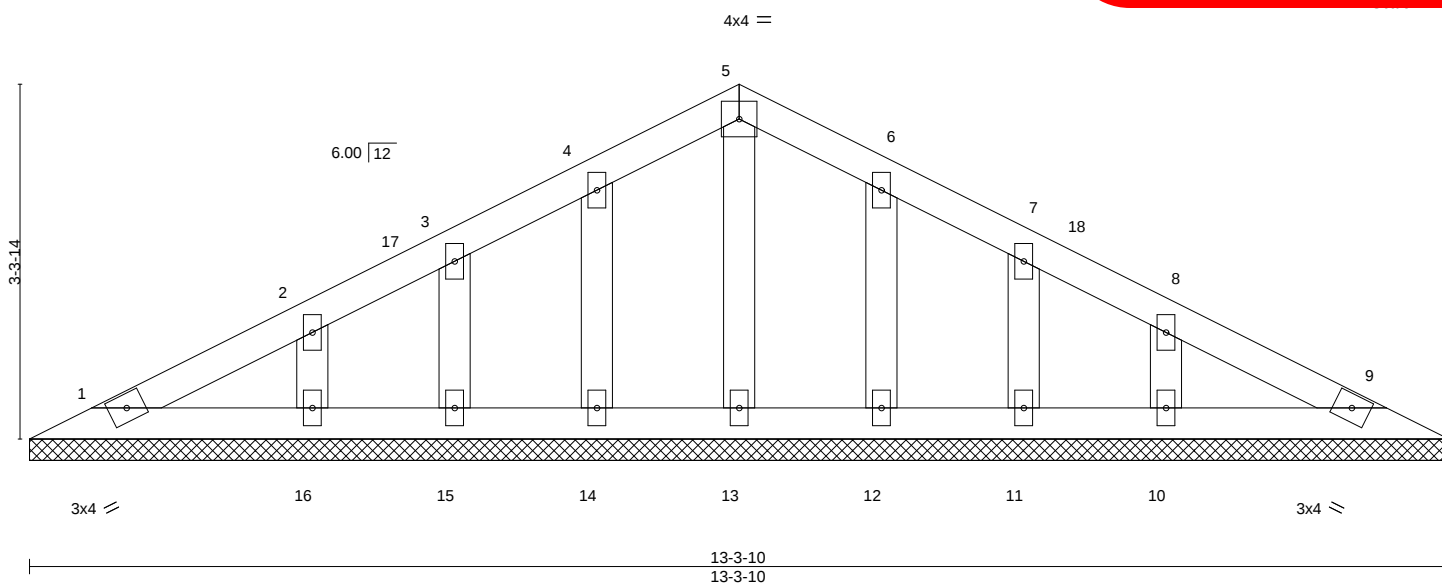
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:14 2021 Page 1

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6-7-13 6-7-13 13-3-10 13-3-10

DATE



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 44 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 13-3-10.
 (lb) - Max Horz 1=53(LC 12)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 14, 15, 16, 12, 11, 10
 Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

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

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-7-7 to 3-7-7, Exterior(2N) 3-7-7 to 6-7-13, Corner(3R) 6-7-13 to 9-7-13, Exterior(2N) 9-7-13 to 12-8-3 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
- 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.
- 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) 1, 9, 14, 15, 16, 12, 11, 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 6, 2021

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

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



16023 Swingley Ridge Rd
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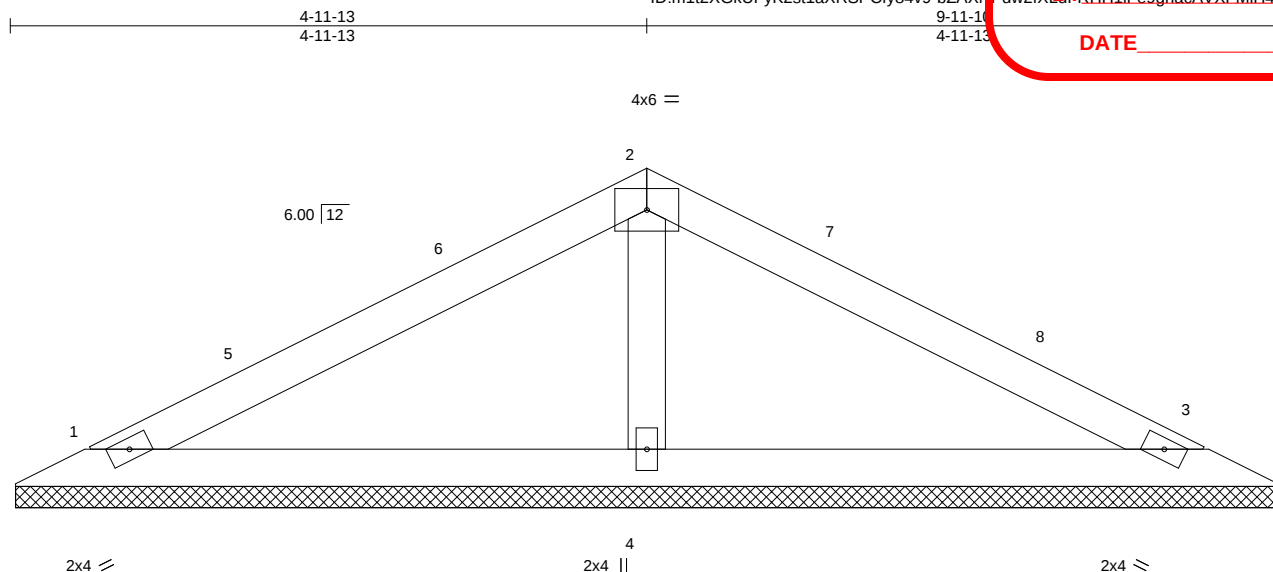
Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V8	Valley	1	1	Job Reference (optional)

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AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:15 2021 Page 1

ID:m1t2XGkUfyK2st1aXRSPCy84v9-bZAXN Pdw2fXLRHH1IFe9ghacAVXFMH4qSOAzTIBk



0-0-8	9-11-10
0-0-8	9-11-2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						

Weight: 25 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=9-10-10, 3=9-10-10, 4=9-10-10
 Max Horz 1=-38(LC 17)
 Max Uplift 1=-42(LC 12), 3=-50(LC 13), 4=-45(LC 12)
 Max Grav 1=181(LC 25), 3=181(LC 26), 4=427(LC 1)

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

WEBS 2-4=-295/184

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-11-13, Exterior(2R) 4-11-13 to 7-11-13, Interior(1) 7-11-13 to 9-4-1 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
- 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, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 6, 2021

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16023 Swingley Ridge Rd
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Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V9	Valley	1	1	Job Reference (optional)

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

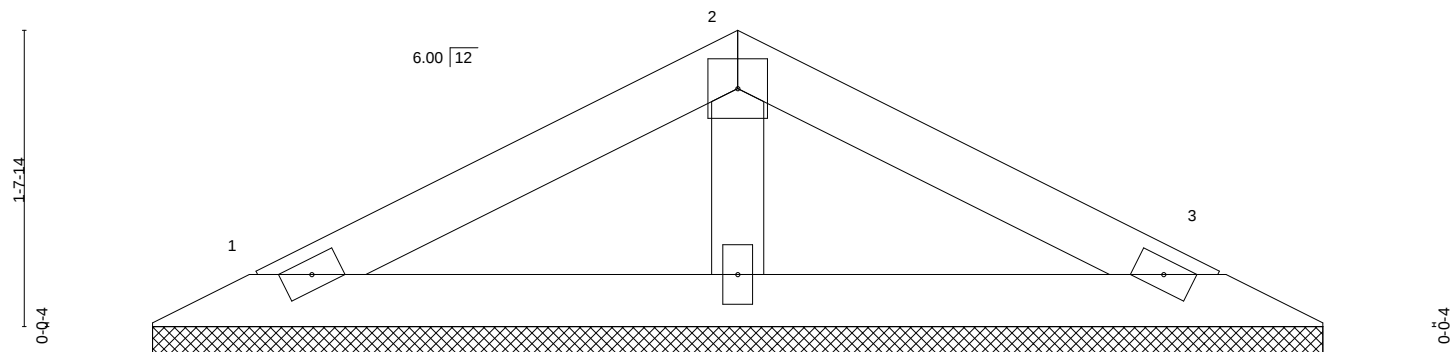
8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:16 2021 Page 1

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3-3-13 3-3-13 6-7-10 3-3-13

DATE _____

4x4 =



2x4 =

2x4 ||

2x4 =

0-0-8
0-0-8

6-7-10
6-7-2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 16 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-6-10, 3=6-6-10, 4=6-6-10
Max Horz 1=24(LC 16)
Max Uplift 1=32(LC 12), 3=36(LC 13), 4=17(LC 12)
Max Grav 1=123(LC 1), 3=123(LC 1), 4=237(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 6, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2731404	Truss V10	Truss Type Valley	Qty 1	Ply 1	Summit/86 Hawthorne
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:08 2021 Page 1		
			ID:m1t2XGkUFyK2st1aXRSPCy84v9-ICFu?YXiWiEHAOWN37cshtYzophO5HjgVdaG4zTiBr		
			Job Reference (optional)		

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

DATE

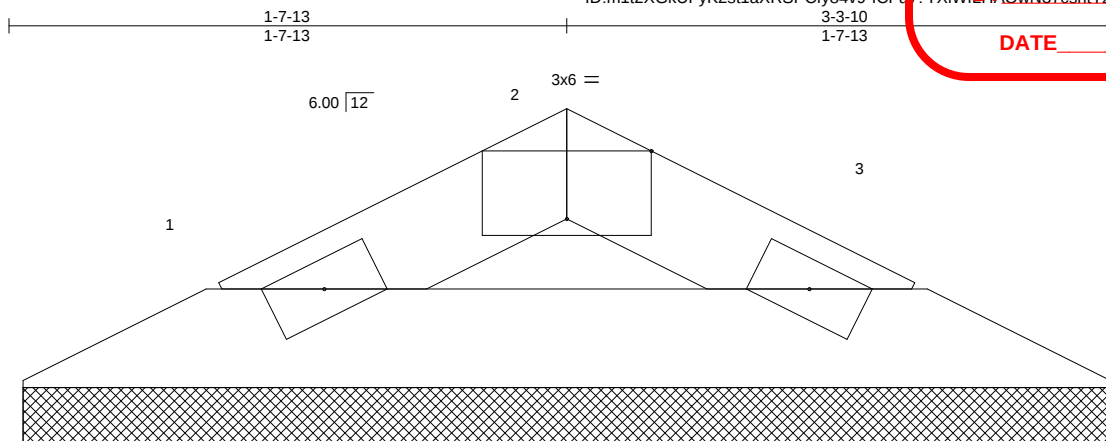


Plate Offsets (X,Y)--		[2:0-3-0,Edge]			
LOADING (psf)		SPACING-		CSI.	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.03
TCDL	10.0	Lumber DOL	1.15	BC	0.04
BCLL	0.0	Rep Stress Incr	YES	WB	0.00
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P	
				DEFL.	
				in (loc)	
				l/defl	
				L/d	
				PLATES	
				GRIP	
				Weight: 6 lb	
				FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=3-2-10, 3=3-2-10
Max Horz 1=9(LC 12)
Max Uplift 1=-15(LC 12), 3=-15(LC 13)
Max Grav 1=92(LC 1), 3=92(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 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.



April 6, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V11	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

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CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:08 2021 Page 1
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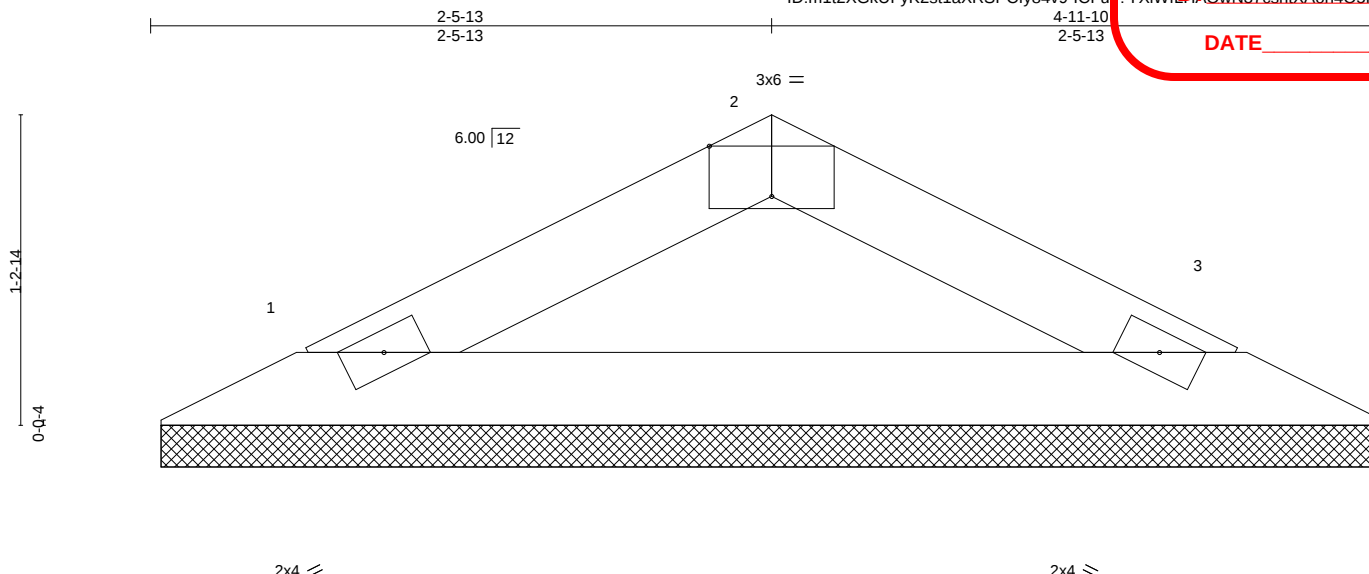


Plate Offsets (X,Y)-- [2:0-3:0,Edge]		0-0:8 0-0:8		4-11-10 4-11-2	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(LL) n/a - n/a 999	GRIP 197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Vert(CT) n/a - n/a 999	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Horz(CT) 0.00 3 n/a n/a	Weight: 10 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=4-10-10, 3=4-10-10
Max Horz 1=16(LC 12)
Max Uplift 1=28(LC 12), 3=28(LC 13)
Max Grav 1=167(LC 1), 3=167(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 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.



April 6, 2021

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16023 Swingley Ridge Rd
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Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V12	GABLE	1	1	

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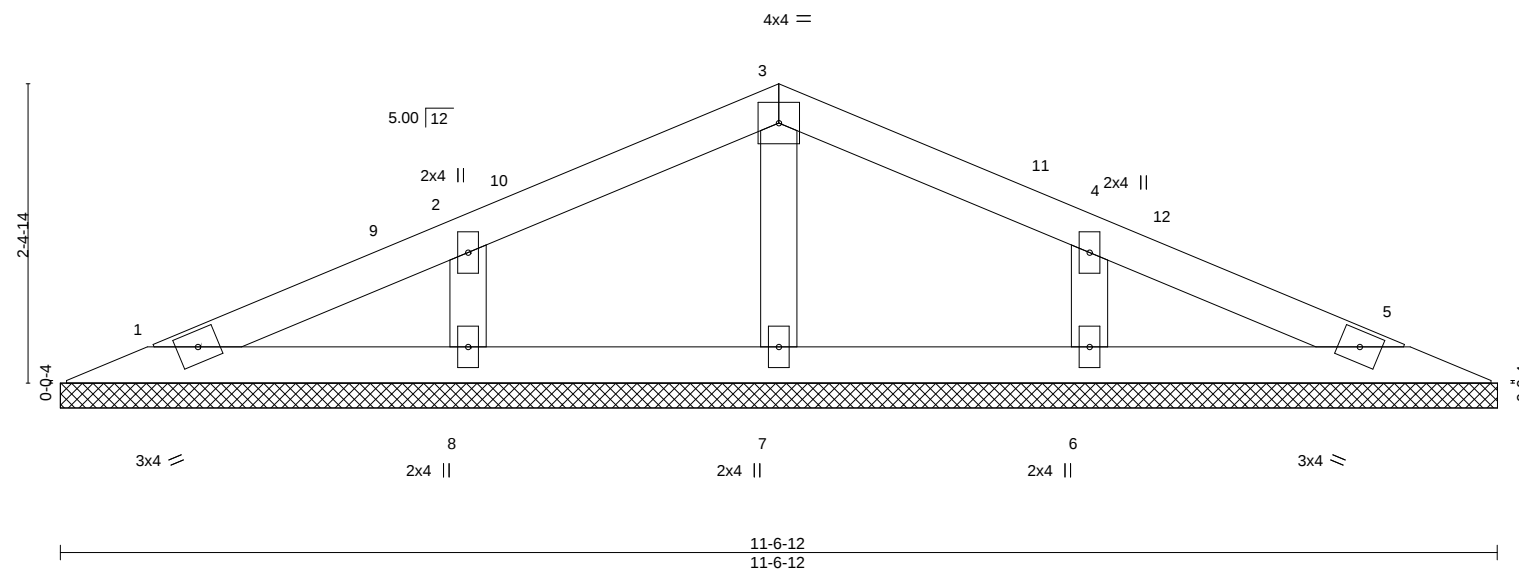
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:09 2021 Page 1

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5-9-6 5-9-6 11-6-12 11-6-12

DATE



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					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 11-6-12.
 (lb) - Max Horz 1=37(LC 13)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=271(LC 25), 6=271(LC 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 5-9-6, Exterior(2R) 5-9-6 to 8-9-6, Interior(1) 8-9-6 to 10-9-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.



April 6, 2021

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

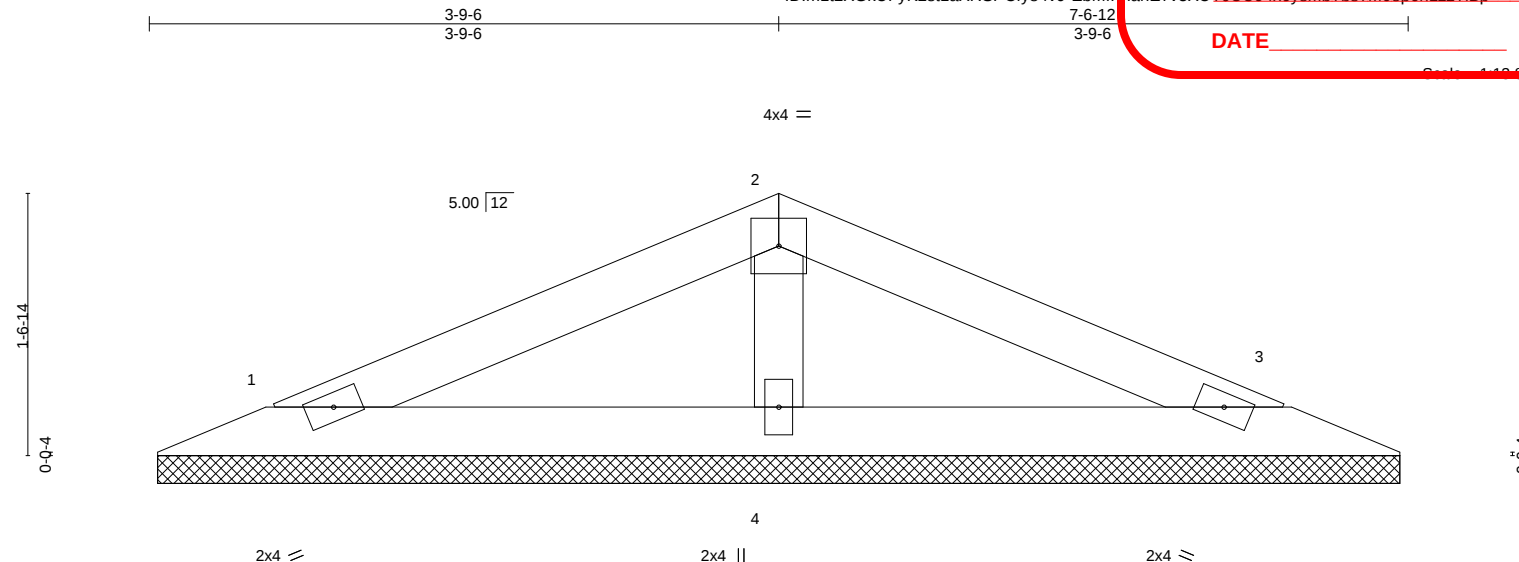
Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V13	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

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DATE



0-0-10	7-6-12
0-0-10	7-6-2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 17 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-5-8, 3=7-5-8, 4=7-5-8
 Max Horz 1=-22(LC 13)
 Max Uplift 1=-35(LC 12), 3=-39(LC 13), 4=-22(LC 12)
 Max Grav 1=135(LC 1), 3=135(LC 1), 4=275(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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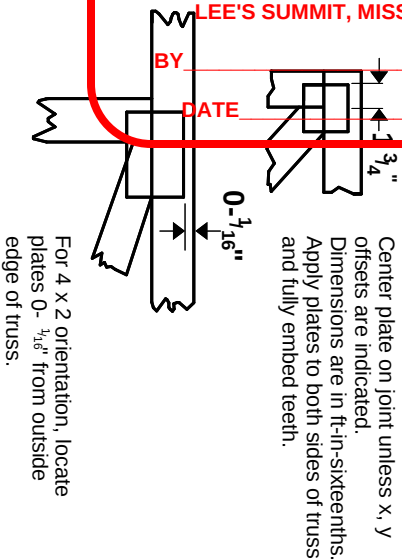


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Symbols

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PLATE LOCATION AND ORIENTATION



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

*** Plate location details available in MiTek 20120 software or upon request.**

PLATE SIZE

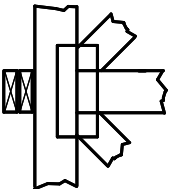
4 X 4
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

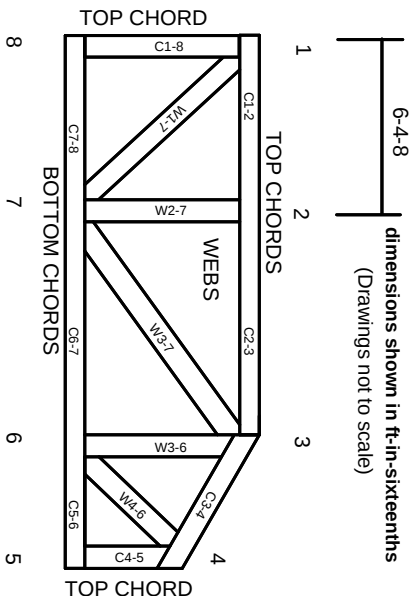


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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