



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
Development Services
LEE'S SUMMIT, MISSOURI

MiTek USA, Inc.

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

Re: 2871039

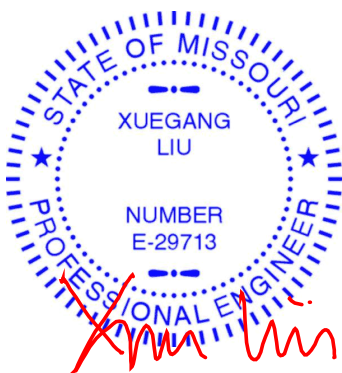
SUMMIT/HAWTHORNE RIDGE#105/MO

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: I47037146 thru I47037187

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

Missouri COA: Engineering 001193



July 16, 2021

Liu, Xuegang ,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/HAWTHORNE RIDGE#105/MO
2871039	A1	Roof Special Supported Gable	1	1	Job Reference (optional)

I47037146

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:15 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-wp2ypQw8U_oQh?tkrSqF41tMt3vKE?4BWkzgDiyxXe2

0-11-0 15-6-0 21-7-12 21-11-8
0-11-0 15-6-0 6-1-12 0-3-12

4x6 =

Scale = 1:50.3

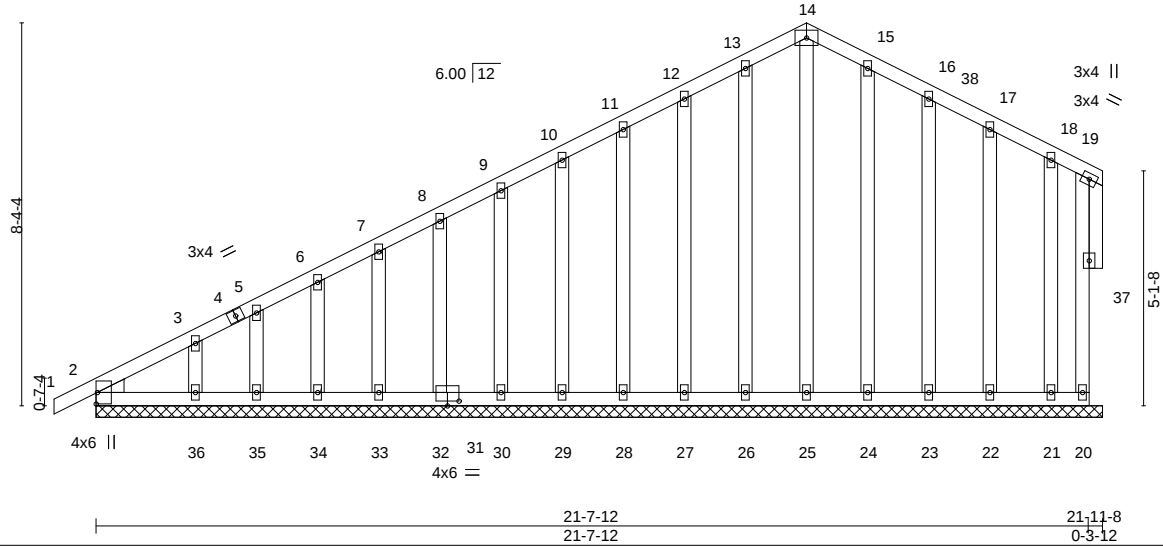


Plate Offsets (X,Y)-- [31:0-3-0,0-1-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.15	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0	Lumber DOL 1.15	WB 0.16	Horz(CT)	-0.00	20	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S							
	Code IRC2018/TPI2014							Weight: 147 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 21-11-8.

(lb) - Max Horz 2=249(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 24, 23, 22, 21, 20

Max Grav All reactions 250 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 24, 23, 22, 21, 20

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

TOP CHORD 2-3=-257/166

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) -0-11-0 to 2-2-0, Exterior(2N) 2-2-0 to 15-6-0, Corner(3R) 15-6-0 to 18-6-0, Exterior(2N) 18-6-0 to 21-8-0 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) 2, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 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.



July 16, 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 2871039	Truss A2	Truss Type Roof Special	Qty 6	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037147

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:25 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-dkfkwr2Q733?uXQfQY0bU8Iyh5EKaQfgpiOCZ7yxXdu

0-11-0 7-9-3 15-6-0 21-7-12 21-11-8
0-11-0 7-9-3 7-8-13 6-1-12 0-3-12

5x8 =

Scale = 1:50.0

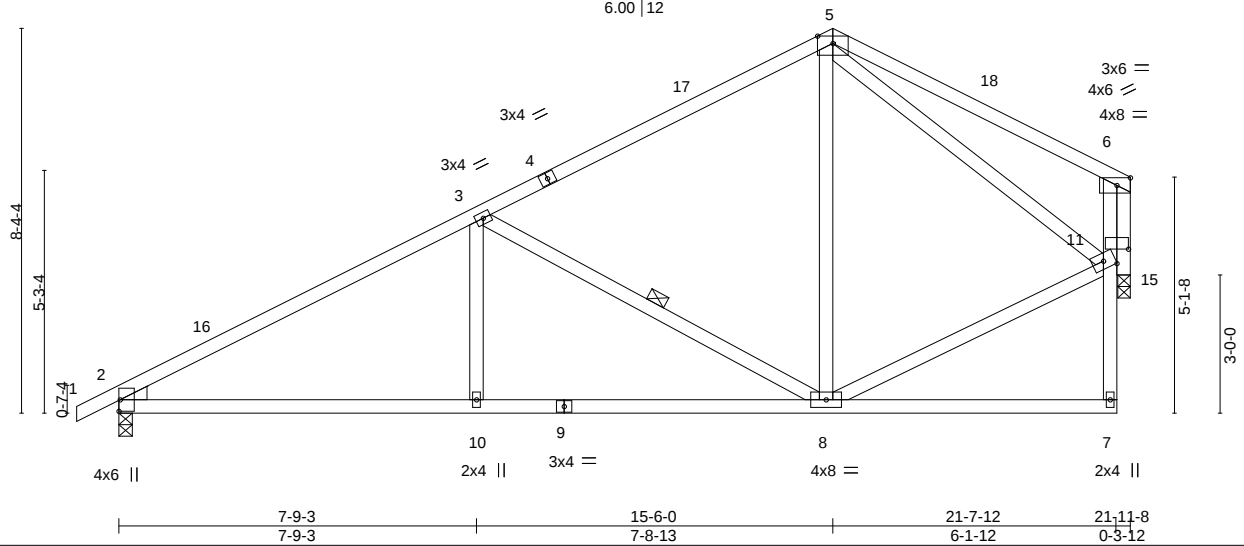


Plate Offsets (X,Y)-- [11:0-3-0,0-3-12]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	2-0-0	TC 0.58	Vert(LL) -0.06	8-10	>999	240		MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.48	Vert(CT) -0.13	8-10	>999	180			
BCLL 0.0	Rep Stress Incr YES		WB 0.54	Horz(CT) 0.02	15	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 101 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 15=0-3-4
Max Horz 2=213(LC 9)
Max Uplift 2=-192(LC 12), 15=-162(LC 12)
Max Grav 2=1047(LC 1), 15=954(LC 1)

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

TOP CHORD 2-3=-1536/299, 3-5=-792/225, 5-6=-310/154, 6-11=-108/656
BOT CHORD 2-10=-399/1284, 8-10=-399/1284
WEBS 3-10=0/308, 3-8=-808/301, 5-8=-35/370, 8-11=-169/640, 5-11=-514/127, 6-15=-967/227

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior(1) 18-6-0 to 21-6-4 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 15 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) 2=192, 15=162.
- 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.



July 16, 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 2871039	Truss A3	Truss Type ROOF SPECIAL	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO I47037148
Job Reference (optional)					

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

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ID:4rXHhD3_rtBCgQSIY2gdJuzGww6-5wD67B22uMBsWh?r_GXq0Mq7oVVeJpAp2y7I5ayxXdt

-0-11-0	7-9-3	15-6-0	21-9-7	23-1-1	28-0-13	31-8-12
0-11-0	7-9-3	7-8-13	6-3-7	1-3-10	4-11-12	3-7-15

Scale = 1:55.9

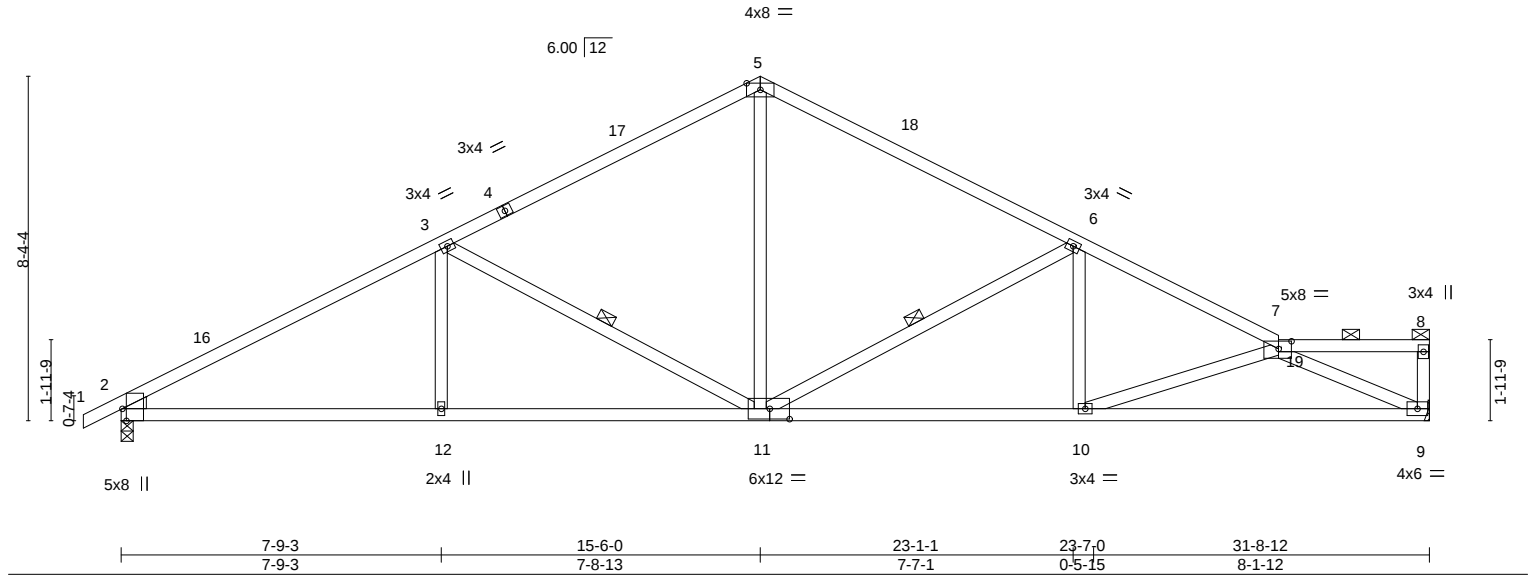


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [7:0-3-12,0-2-4], [11:0-5-12,0-3-0]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.15 10-11	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.31 11-12		
BCLL	0.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.11 9		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 127 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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-11, 6-11

REACTIONS.

(size) 9=Mechanical, 2=0-3-8
Max Horz 2=155(LC 11)
Max Uplift 9=239(LC 13), 2=253(LC 12)
Max Grav 9=1420(LC 1), 2=1486(LC 1)

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

TOP CHORD 2-3=-2434/391, 3-5=-1732/360, 5-6=-1731/355, 6-7=-2482/397
BOT CHORD 2-12=-389/2077, 11-12=-389/2077, 10-11=-339/2180, 9-10=-458/2548
WEBS 3-12=0/293, 3-11=-773/293, 5-11=-112/909, 7-10=-391/140, 7-9=-2726/503, 6-11=-864/284, 6-10=0/391

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) -0-11-0 to 2-3-1, Interior(1) 2-3-1 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=239, 2=253.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2871039	Truss A4	Truss Type Roof Special	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)	I47037149
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Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:27 2021 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-Z6nVLX3gfgJ7ra2Yz23ZZNIWurO2JcyHctJe0yxXds

-0-11-0 7-9-3 15-6-0 20-5-7 25-4-13 31-8-12
0-11-0 7-9-3 7-8-13 4-11-7 4-11-7 6-3-15

Scale = 1:55.8

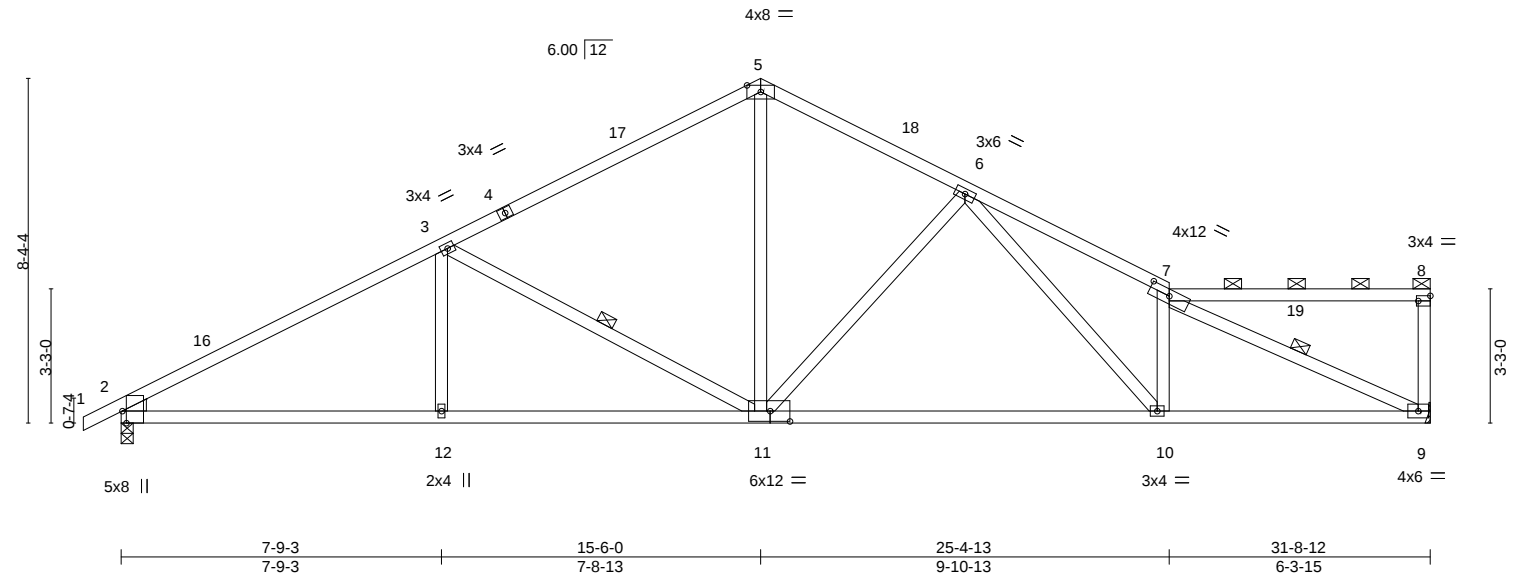


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [7:0-6-0,0-1-14], [8:Edge,0-1-8], [11:0-5-12,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 2-0-0	TC 0.62	Vert(LL) -0.22	10-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.76	Vert(CT) -0.51	10-11	>745	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.64	Horz(CT) 0.11	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					Weight: 131 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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-11, 7-9

REACTIONS.

(size) 9=Mechanical, 2=0-3-8
Max Horz 2=192(LC 11)
Max Uplift 9=245(LC 13), 2=253(LC 12)
Max Grav 9=1420(LC 1), 2=1486(LC 1)

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

TOP CHORD 2-3=-2433/394, 3-5=-1735/355, 5-6=-1677/353, 6-7=-2764/479
BOT CHORD 2-12=-411/2078, 11-12=-411/2078, 10-11=-335/1840, 9-10=-396/2409
WEBS 3-12=0/273, 3-11=-764/299, 5-11=-151/997, 6-11=-635/242, 6-10=-147/836, 7-10=-473/191, 7-9=-2601/395

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) -0-11-0 to 2-3-1, Interior(1) 2-3-1 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=245, 2=253.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2871039	Truss A5	Truss Type ROOF SPECIAL	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)	I47037150
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:28 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-2JLtyS4IQ_Ral?8E5hZI5nwRslCynqM6VGcsASyXdr

-0-11-0	7-9-3	8-3-3	15-6-0	22-8-13	27-2-13	31-8-12
0-11-0	7-9-3	0-6-0	7-2-13	7-2-13	4-5-15	4-5-15

Scale = 1:55.9

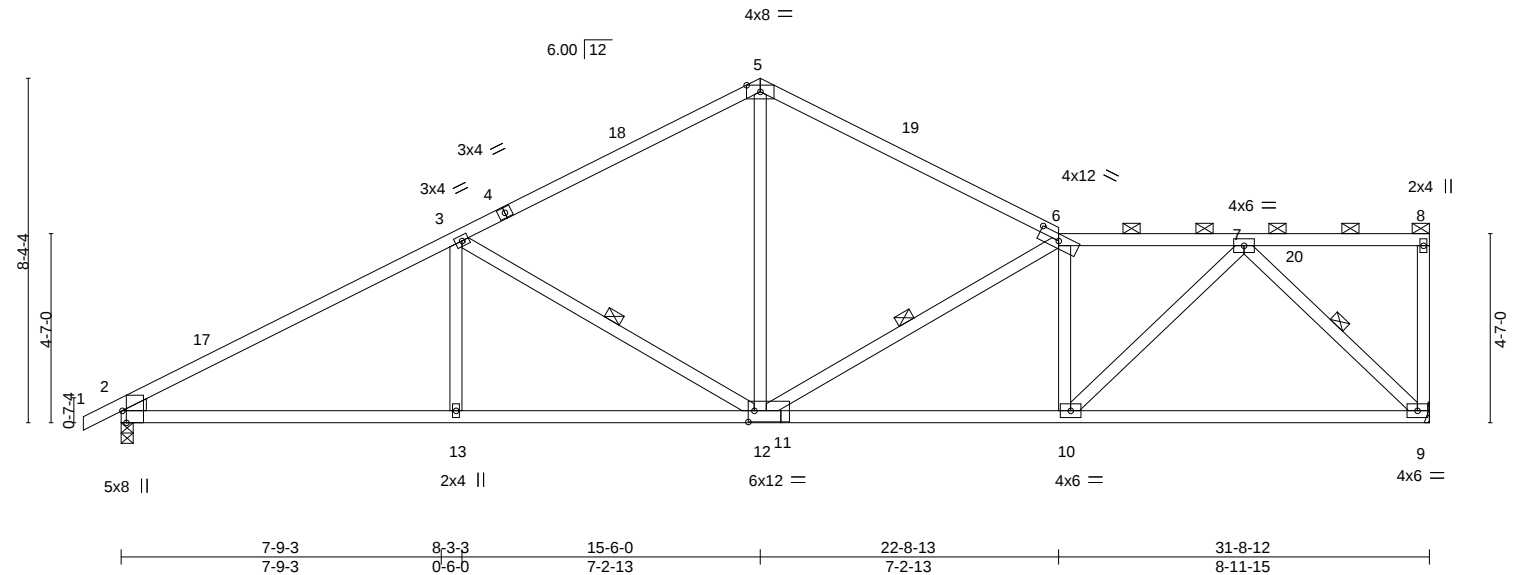


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [6:0-6-0,0-1-14], [11:0-1-12,0-3-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.16	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.34	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 132 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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-11 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-12, 7-9, 3-12

REACTIONS.

(size) 9=Mechanical, 2=0-3-8
Max Horz 2=230(LC 11)
Max Uplift 9=253(LC 13), 2=252(LC 12)
Max Grav 9=1420(LC 1), 2=1486(LC 1)

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

TOP CHORD 2-3=-2413/389, 3-5=-1723/363, 5-6=-1719/342, 6-7=-2116/375
BOT CHORD 2-13=-455/2054, 12-13=-455/2054, 10-12=-390/2137, 9-10=-262/1244
WEBS 5-12=-121/936, 6-12=-830/206, 6-10=-692/196, 7-10=-171/1223, 7-9=-1701/329, 3-13=0/300, 3-12=-766/288

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) -0-11-0 to 2-3-1, Interior(1) 2-3-1 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=253, 2=252.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 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 2871039	Truss A6	Truss Type Roof Special	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037151

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:30 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-_hSdzY6Yybhl_JldD6bmBC?qt6qUFboPzZ5zELyxXdp

0-11-0 7-9-3 12-2-8 15-5-8 15-6-0 18-9-8 23-5-3 28-0-13 31-8-12
0-11-0 7-9-3 4-5-5 3-3-0 0-0-8 3-3-8 4-7-11 4-7-11 3-7-15

Scale = 1:56.9

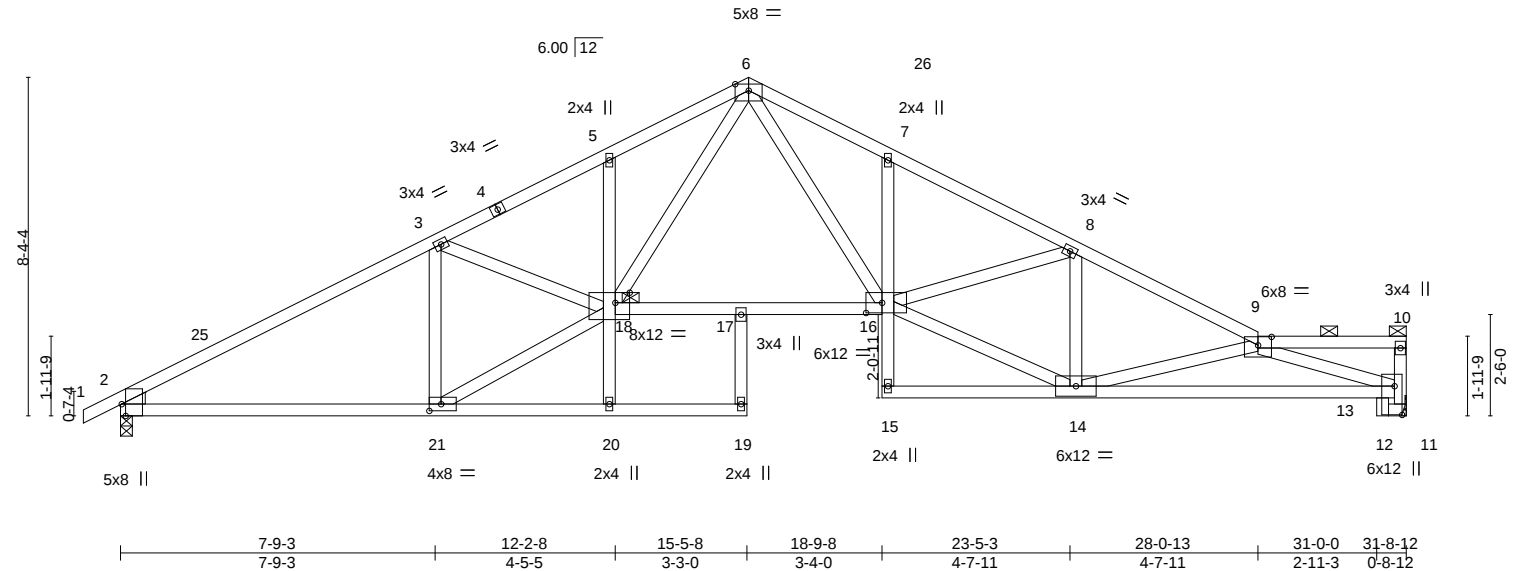


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [9:0-4-0,0-2-8], [11:0-8-8,0-2-4], [16:0-4-12,0-3-0], [18:0-4-4,0-3-0], [21:0-3-8,0-2-0]										
LOADING (psf)		SPACING-2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.28	16-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.54	16-17	>703	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.26	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 153 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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-10.
BOT CHORD Rigid ceiling directly applied.
JOINTS 1 Brace at Jt(s): 10, 18

REACTIONS.

(size) 11=Mechanical, 2=0-3-8
Max Horz 2=155(LC 11)
Max Uplift 11=236(LC 13), 2=253(LC 12)
Max Grav 11=1429(LC 1), 2=1486(LC 1)

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

TOP CHORD 2-3=-2408/388, 3-5=-3114/539, 5-6=-3075/607, 6-7=-3222/621, 7-8=-3240/561,
8-9=-2781/434, 11-13=-1374/230
BOT CHORD 2-21=-378/2048, 17-18=-251/1972, 16-17=-267/2013, 7-16=-271/153, 13-14=-620/3421
WEBS 3-21=-1008/233, 8-14=-667/168, 14-16=-392/2642, 8-16=-43/405, 9-14=-1019/278,
9-13=-3472/650, 18-21=-415/2281, 3-18=-61/705, 6-16=-339/1565, 6-18=-317/1365

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) -0-11-0 to 2-3-1, Interior(1) 2-3-1 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=236, 2=253.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 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 2871039	Truss A7	Truss Type Roof Special	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO I47037152
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:31 2021 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-Su0?Au6Bjvp9cStpn7?jPYy2WBV_4uYCDrWnnYXdo

0-11-0 6-11-0	2-3-8 2-3-8	7-10-12 5-7-4	13-6-0 5-7-4	15-6-0 2-0-0	20-5-7 4-11-7	21-4-11 0-11-8	22-11-8 1-6-13	25-4-13 2-5-5	31-8-12 6-3-15
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Scale = 1:63.2

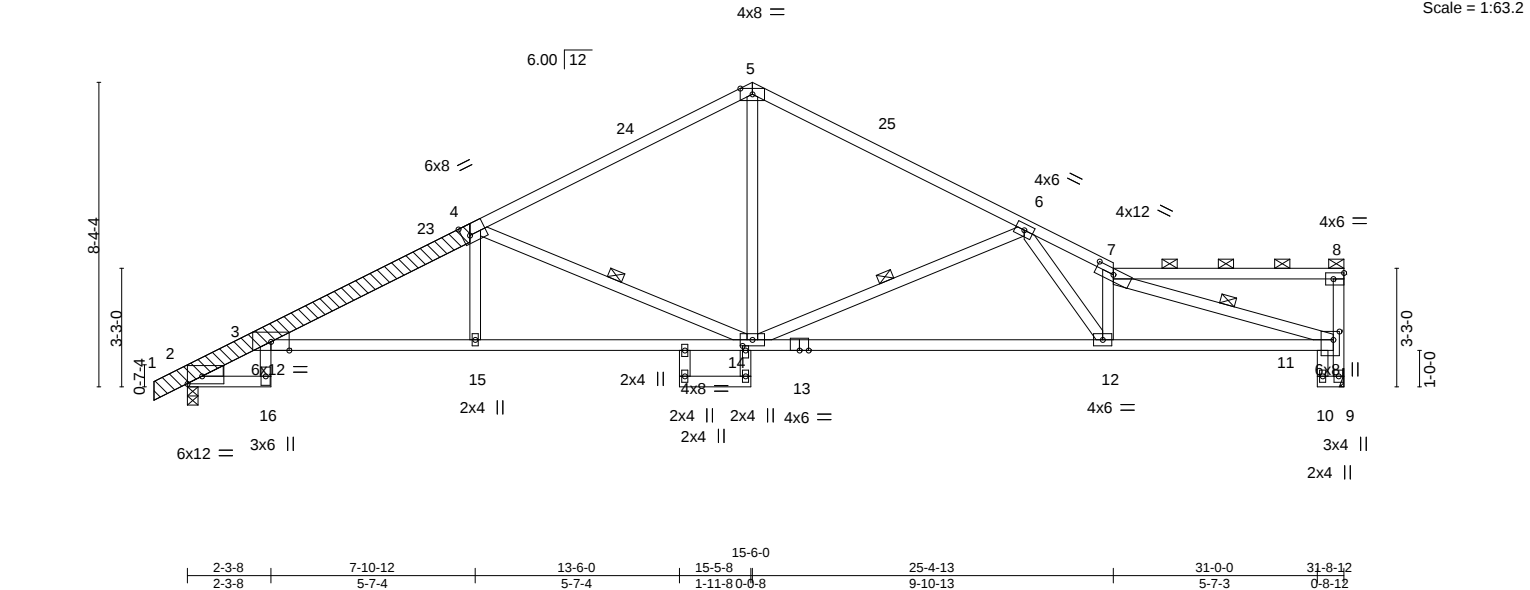


Plate Offsets (X,Y)-- [2:Edge,0-2-8], [4:0-2-8,Edge], [7:0-6-0,0-1-14], [8:Edge,0-2-0], [11:0-2-12,0-2-0], [14:0-1-8,0-1-0]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.34	3-15	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.76	12-14	>502	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.43	9	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 154 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 2x6 SPF 2100F 1.8E
LBR SCAB 1-4 2x6 SPF 2100F 1.8E one side
WEDGE
Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-11, 4-14, 6-14

REACTIONS.

(size) 9=Mechanical, 2=0-3-8
Max Horz 2=193(LC 11)
Max Uplift 9=241(LC 13), 2=253(LC 12)
Max Grav 9=1429(LC 1), 2=1486(LC 1)

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

TOP CHORD 3-21=-823/166, 3-4=-2981/504, 4-5=-1973/369, 5-6=-1957/377, 6-7=-3932/601, 9-11=-1352/232
BOT CHORD 3-16=-77/367, 3-15=-555/2791, 14-15=-551/2790, 12-14=-491/2735, 11-12=-572/3547
WEBS 7-12=-927/194, 7-11=-3572/528, 5-14=-135/1142, 4-14=-1237/407, 6-14=-1193/357, 6-12=-138/1308

NOTES-

- Attached 9-11-0 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-5 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-4-13; starting at 7-8-12 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
- 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) -0-11-0 to 2-1-12, Interior(1) 2-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=241, 2=253.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO
2871039	A8	COMMON GIRDER	1	2	Job Reference (optional)

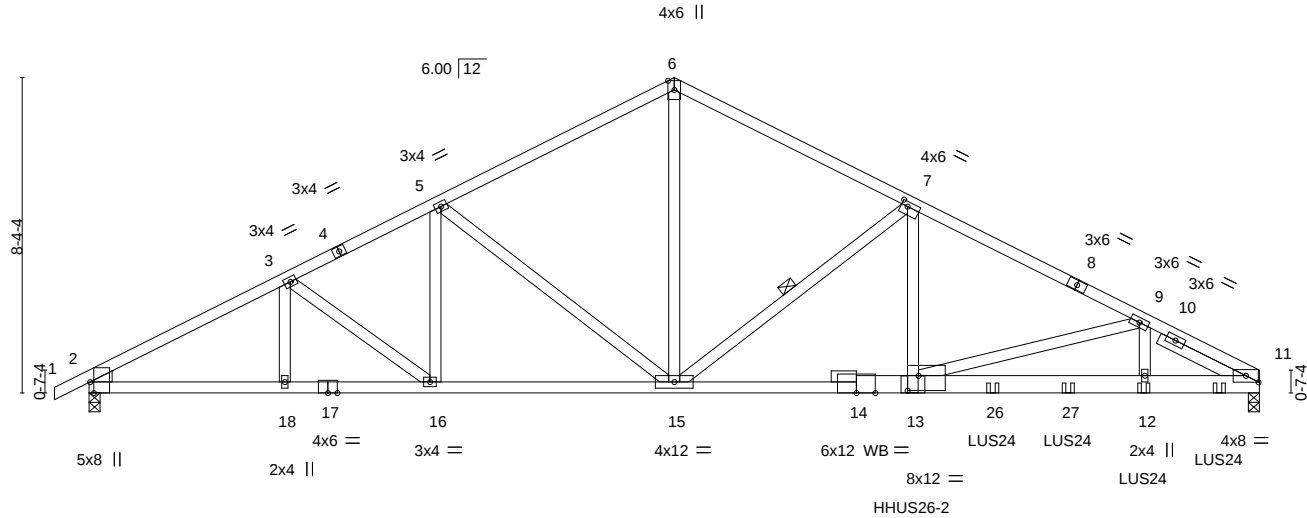
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:33 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-OG8mba8RFW3srm1CuE9ToqdF6JraS1mrfXKdrgyxXdm

0-11-0	5-2-3	9-2-2	10-4-2	15-6-0	21-9-14	25-9-13	27-11-9	31-0-0
0-11-0	5-2-3	3-11-14	1-2-0	5-1-14	6-3-14	3-11-14	2-1-13	3-0-7

Scale = 1:61.0



5-2-3	9-2-2	10-4-2	15-6-0	21-9-14	25-9-13	27-11-9	31-0-0
5-2-3	3-11-14	1-2-0	5-1-14	6-3-14	3-11-14	2-1-13	3-0-7

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.94	Vert(LL) -0.21	12-13	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.90	Vert(CT) -0.38	12-13	>966	180		
BCLL 0.0	Rep Stress Incr NO	WB 0.59	Horz(CT) 0.11	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS						
							Weight: 293 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF 1650F 1.5E *Except*
 11-14: 2x6 SP 2400F 2.0E
 WEBS 2x4 SPF No.2
 OTHERS 2x4 SPF No.2
 WEDGE
 Left: 2x4 SPF No.2
 SLIDER Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 7-15

REACTIONS.

(size) 2=0-3-8, 11=0-3-8
 Max Horz 2=154(LC 8)
 Max Uplift 2=-469(LC 8), 11=-975(LC 9)
 Max Grav 2=2739(LC 1), 11=5779(LC 1)

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

TOP CHORD 2-3=-4901/817, 3-5=-4831/831, 5-6=-4375/782, 6-7=-4378/784, 7-9=-8671/1463,
 9-11=-10173/1724
 BOT CHORD 2-18=-792/4267, 16-18=-792/4267, 15-16=-736/4309, 13-15=-1179/7707,
 12-13=-1475/8876, 11-12=-1475/8876
 WEBS 6-15=-560/3410, 7-15=-4935/973, 5-15=-638/275, 7-13=-704/4449, 9-13=-1259/308,
 9-12=-207/1326, 5-16=-57/259

NOTES-

- 2-ply truss to be connected together as follows:
 Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-4-0 oc.
 Bottom chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-3-0 oc.
 Web connected with WS3 as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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
- 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=469, 11=975.
- 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.
- Use Simpson Strong-Tie HHUS26-2 (14-16d Girder, 6-16d Truss) or equivalent at 21-9-14 from the left end to connect truss(es) to back face of bottom chord.

Continued on page 2



July 16, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO
2871039	A8	COMMON GIRDER	1	2	I47037153

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s Jun 2 2021 MiTek Industries, Inc.
Fri Jul 16 09:13:33 2021
Page 2
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- NOTES-**
- 9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 23-11-4 from the left end to 29-11-4 to connect truss(es) to back face of bottom chord.
- 10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-6=-70, 6-11=-70, 19-22=-20

Concentrated Loads (lb)

Vert: 13=-3416(B) 12=-565(B) 24=-566(B) 26=-565(B) 27=-565(B)

Job 2871039	Truss A9	Truss Type COMMON	Qty 4	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)	I47037154
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Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:34 2021 Page 1
ID:4rXHhD3_rtbCgQSIY2gdJuzGwv6-sTi8pw930qBjTwcOSxgiL2AWgjGFBZv_ub3AN6yxXdl

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

Scale = 1:54.7

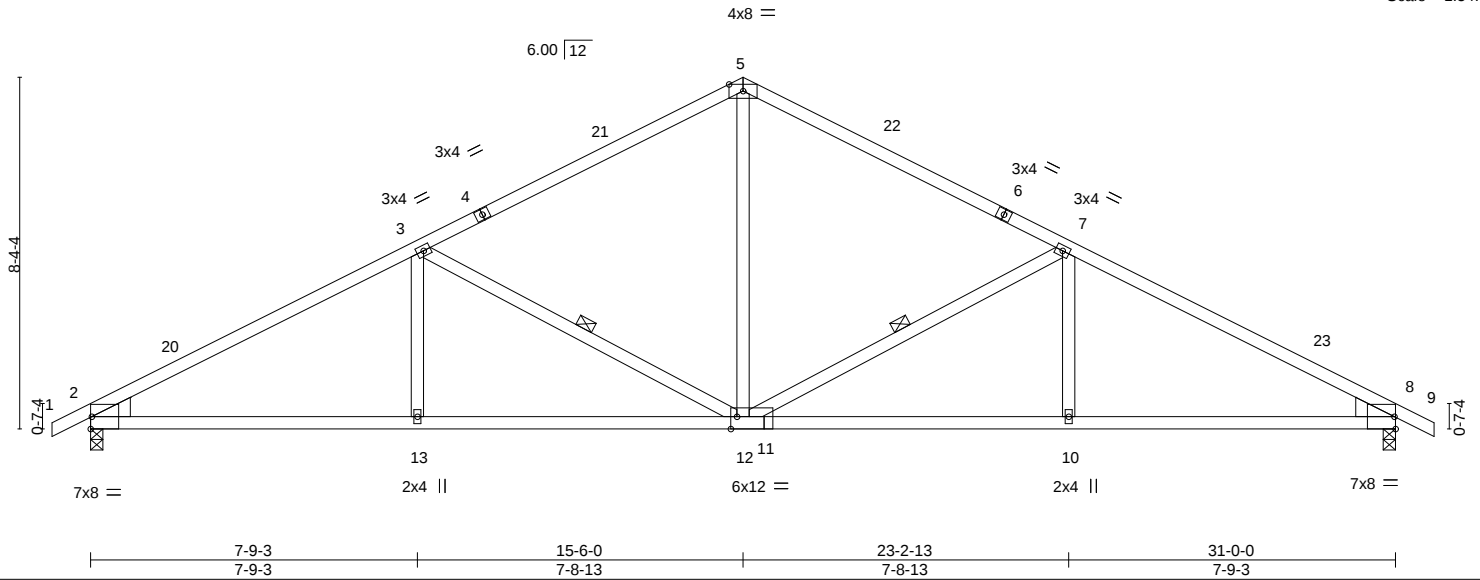


Plate Offsets (X,Y)--		[11:0-1-12,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.13 10-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.27 10-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.10 8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 118 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x6 SPF No.2 , Right: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-12, 3-12

REACTIONS.

(size) 2=0-3-8, 8=0-3-8
Max Horz 2=145(LC 12)
Max Uplift 2=-251(LC 12), 8=-251(LC 13)
Max Grav 2=1459(LC 1), 8=1459(LC 1)

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

TOP CHORD 2-3=-2378/386, 3-5=-1675/349, 5-7=-1675/349, 7-8=-2378/386
BOT CHORD 2-13=-378/2028, 12-13=-378/2028, 10-12=-242/2028, 8-10=-242/2028
WEBS 5-12=-108/862, 7-12=-773/295, 7-10=0/291, 3-12=-773/294, 3-13=0/291

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) -0-11-0 to 2-2-3, Interior(1) 2-2-3 to 15-6-0, Exterior(2R) 15-6-0 to 18-7-3, Interior(1) 18-7-3 to 31-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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=251, 8=251.
- 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.



July 16, 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/HAWTHORNE RIDGE#105/MO
2871039	A10	Roof Special	1	1	
					Job Reference (optional)

I47037155

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:17 2021 Page 1

ID:4rXhHd3_rBCgQSIY2gdJuzGwv6-sBAJE6yP0b28xJp7ytsj9SzaCsPMik_U_2SnIbyxXe0

0-11-0 2-3-8 7-10-12 13-6-0 15-6-0 20-0-13 23-7-8 27-6-6 31-8-12
0-11-0 2-3-8 5-7-4 5-7-4 2-0-0 4-6-13 3-6-11 3-10-14 4-2-6

Scale = 1:59.4

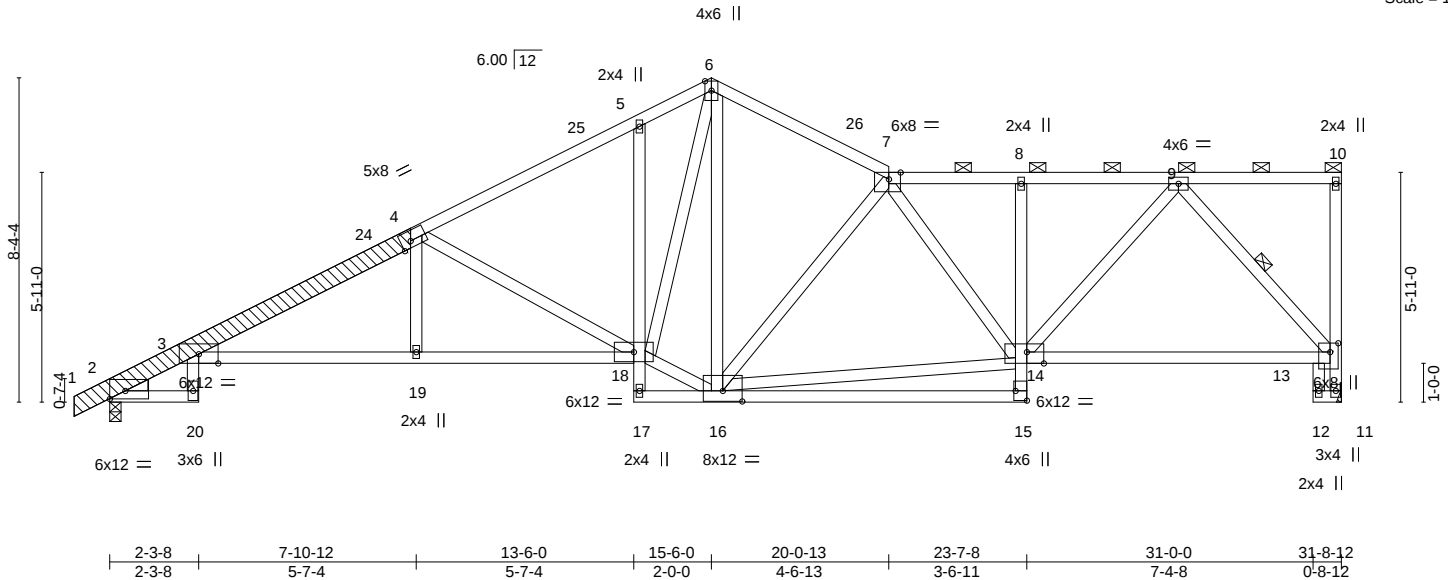


Plate Offsets (X,Y)-- [2:Edge,0-2-8], [4:0-3-0,Edge], [7:0-3-10,Edge], [13:0-2-12,0-2-8], [14:0-5-4,Edge], [15:Edge,0-3-8], [16:0-6-0,0-3-4]									
LOADING (psf)	SPACING	2-0-0	CSI	DEFL.	in	(loc)	l/defl	L/d	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.31	3-19	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.57	3-19	>661	180	GRIP
BCLL 0.0	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.38	11	n/a	n/a	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
									Weight: 190 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
3-18: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 2x6 SPF 2100F 1.8E
LBR SCAB 1-4 2x6 SPF 2100F 1.8E one side
WEDGE
Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-4 max.): 7-10.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 9-13

REACTIONS.

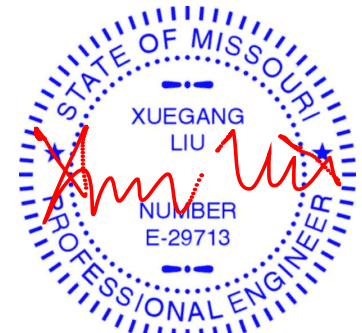
(size) 11=Mechanical, 2=0-3-8
Max Horz 2=270(LC 11)
Max Uplift 11=261(LC 13), 2=252(LC 12)
Max Grav 11=1429(LC 1), 2=1486(LC 1)

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

TOP CHORD 3-22=-823/169, 3-4=-2961/481, 4-5=-2135/394, 5-6=-2014/437, 6-7=-1673/355,
7-8=-1851/337, 8-9=-1876/337, 11-13=-1352/251
BOT CHORD 3-20=-95/367, 3-19=-667/2762, 18-19=-663/2763, 8-14=-280/113, 13-14=-262/1086
WEBS 4-18=-1082/319, 9-14=-178/1200, 9-13=-1601/332, 14-16=-404/1878, 7-14=-283/115,
7-16=-958/238, 16-18=-303/1511, 6-18=-390/1437

NOTES-

- Attached 9-11-0 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-5 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-4-13; starting at 7-8-12 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
- 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) -0-11-0 to 2-1-12, Interior(1) 2-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=261, 2=252.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 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

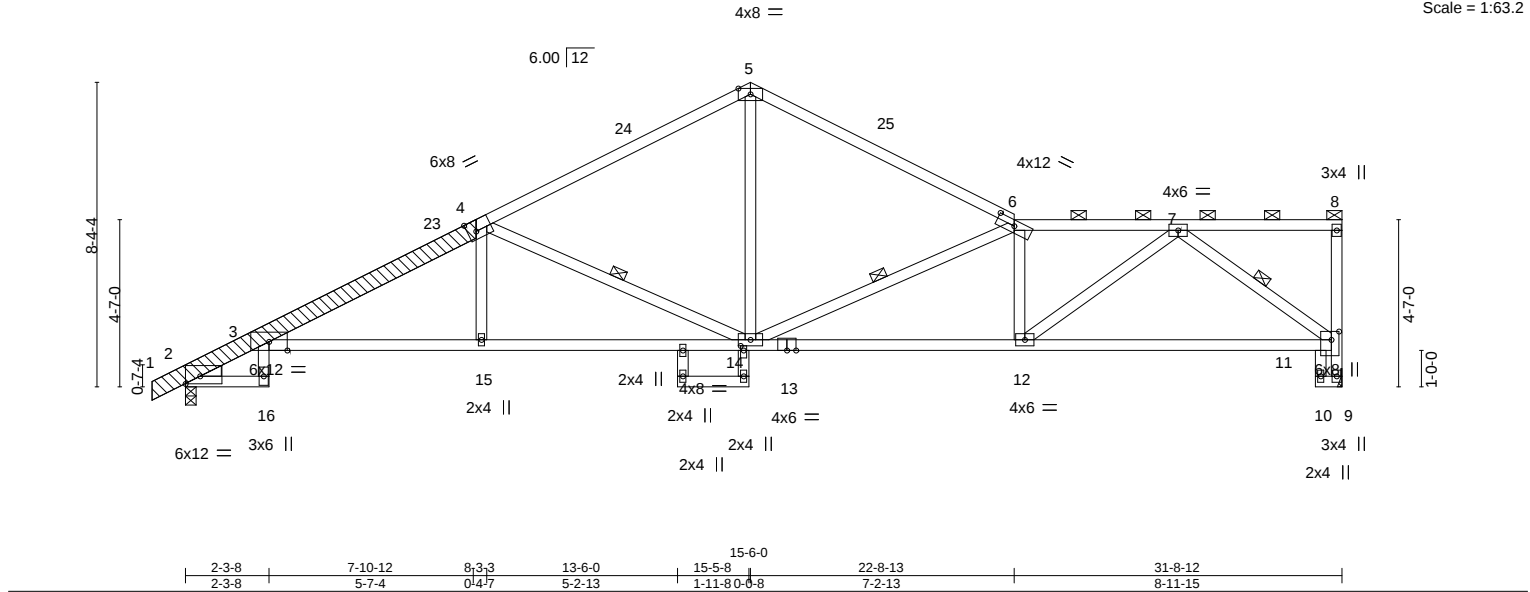
Job 2871039	Truss A11	Truss Type Roof Special	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO I47037156
Job Reference (optional)					

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:19 2021 Page 1
ID:4rXHhD3_rtbCgQSIY2gdJuzGwv6-0alTfnzYDIsAcYV4lvBEt2uzg54AIQnRMxuMUyxXe_

0-11-0	2-3-8	7-10-12	8-3-3	13-6-0	15-6-0	22-8-13	27-2-13	31-8-12
0-11-0	2-3-8	5-7-4	0-4-7	5-2-13	2-0-0	7-2-13	4-5-15	4-5-15

Scale = 1:63.2



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 0.79	Vert(LL)	-0.33	3-15	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.61	3-15	>624	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.40	Horz(CT)	0.41	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 158 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 2x6 SPF 2100F 1.8E
LBR SCAB 1-4 2x6 SPF 2100F 1.8E one side
WEDGE
Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-3-11 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-11, 6-14, 4-14

REACTIONS.

(size) 9=Mechanical, 2=0-3-8
Max Horz 2=231(LC 11)
Max Uplift 9=249(LC 13), 2=252(LC 12)
Max Grav 9=1429(LC 1), 2=1486(LC 1)

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

TOP CHORD 3-21=-823/167, 3-4=-2945/490, 4-5=-1957/374, 5-6=-1945/373, 6-7=-2743/443, 9-11=-1352/240
BOT CHORD 3-16=-85/367, 3-15=-610/2745, 14-15=-605/2746, 12-14=-499/2771, 11-12=-338/1620
WEBS 6-12=-685/197, 7-12=-204/1406, 7-11=-1969/379, 5-14=-135/1150, 6-14=-1252/287, 4-14=-1213/388

NOTES-

- Attached 10-2-0 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-5 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-4-13; starting at 7-11-12 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
- 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) -0-11-0 to 2-1-12, Interior(1) 2-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=249, 2=252.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO
2871039	A12	Roof Special	1	1	Job Reference (optional)

I47037157

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

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ID:4rXHhD3_rtBCgQSIY2gdJuzGww6-Hmsrt7_HJWQiomXid?QOn5b2X4RVv5wxg0gRuwyxXdz

0-11-0	2-3-8	7-10-12	10-11-3	13-6-0	15-6-0	20-0-13	25-9-1	31-8-12
0-11-0	2-3-8	5-7-4	3-0-7	2-6-13	2-0-0	4-6-13	5-8-3	5-11-11

Scale = 1:59.4

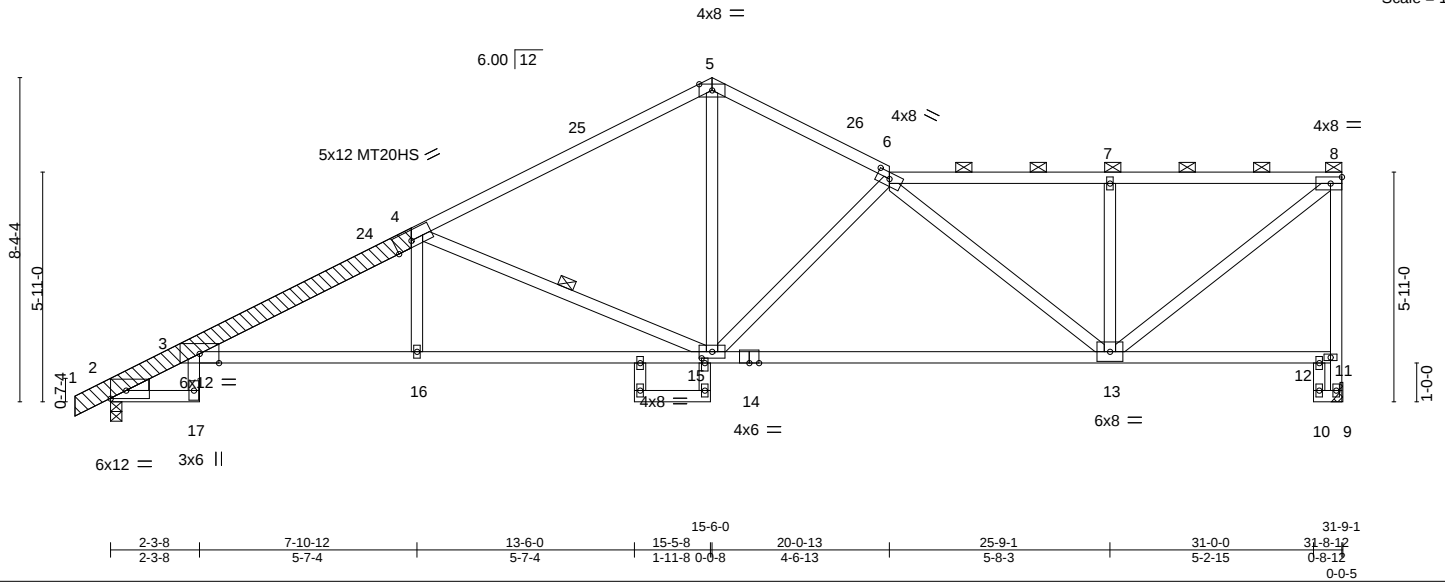


Plate Offsets (X,Y)-- [2:Edge,0-2-8], [4:0-5-4,Edge], [6:0-4-0,0-1-14], [15:0-1-8,0-1-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.80	Vert(LL)	-0.32 3-16	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.65 13-15	>580	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.83	Horz(CT)	0.36 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 162 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
3-14: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 2x6 SPF 2100F 1.8E
LBR SCAB 1-4 2x6 SPF 2100F 1.8E one side
WEDGE
Left: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 9=Mechanical, 2=0-3-8
Max Horz 2=270(LC 11)
Max Uplift 9=265(LC 13), 2=252(LC 12)
Max Grav 9=1420(LC 1), 2=1486(LC 1)

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

TOP CHORD 3-22=-823/169, 3-4=-2990/506, 4-5=-1967/366, 5-6=-1905/363, 6-7=-1540/283,
7-8=-1537/282, 9-11=-1368/256, 8-11=-1377/274
BOT CHORD 3-17=-95/367, 3-16=-692/2800, 15-16=-688/2800, 13-15=-480/2210
WEBS 6-13=-871/219, 7-13=-470/197, 8-13=-326/1926, 5-15=-167/1253, 6-15=-824/229,
4-15=-1259/413

NOTES-

- Attached 9-11-0 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-5 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-4-13; starting at 7-8-12 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
- 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) -0-11-0 to 2-1-12, Interior(1) 2-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=265, 2=252.
- 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.



July 16, 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/HAWTHORNE RIDGE#105/MO
2871039	A12	Roof Special	1	1	I47037157
Job Reference (optional)					

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



Job 2871039	Truss A13	Truss Type Roof Special	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)	I47037158
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:4rXHhD3_rnBCgQSIY2gdJuzGwv6-lzQD4T?v4qYZPw6uBjxfJI7EcUmVeVT4ugQ_QMyxXdy

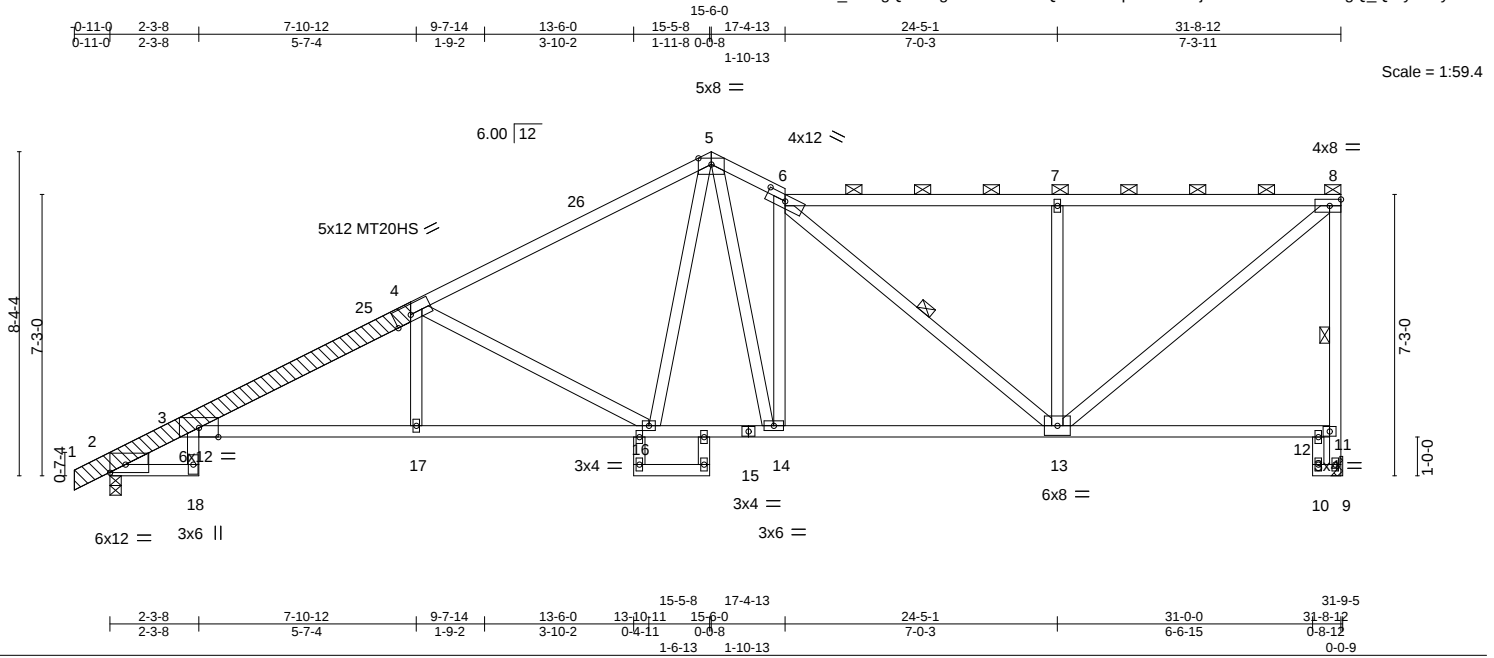


Plate Offsets (X,Y)-- [2:Edge,0-2-8], [4:0-5-4,Edge], [6:0-6-0,0-1-14]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.71	Vert(LL)	-0.31 3-17	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.56 3-17	>672	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 1.00	Horz(CT)	0.35 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 175 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
3-15: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 2x6 SPF 2100F 1.8E
LBR SCAB 1-4 2x6 SPF 2100F 1.8E one side
WEDGE
Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-0-14 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 8-9, 6-13

REACTIONS.

(size) 9=Mechanical, 2=0-3-8
Max Horz 2=308(LC 11)
Max Uplift 9=279(LC 13), 2=251(LC 12)
Max Grav 9=1420(LC 1), 2=1486(LC 1)

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

TOP CHORD 3-23=-823/149, 3-4=-2998/504, 4-5=-2080/353, 5-6=-2121/407, 6-7=-1398/282,
7-8=-1395/281, 9-11=-1352/270, 8-11=-1348/299
BOT CHORD 3-18=-104/367, 3-17=-749/2807, 16-17=-744/2807, 14-16=-434/1614, 13-14=-457/1869
WEBS 6-14=-849/230, 6-13=-624/172, 7-13=-578/241, 8-13=-335/1769, 5-16=-137/616,
5-14=-197/983, 4-16=-1199/386

NOTES-

- Attached 9-11-0 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-5 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-4-13; starting at 7-8-12 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
- 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) -0-11-0 to 2-1-12, Interior(1) 2-1-12 to 15-6-0, Exterior(2E) 15-6-0 to 17-4-13, Interior(1) 17-4-13 to 31-7-0 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
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=279, 2=251.
- 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.



July 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO
2871039	A13	Roof Special	1	1	I47037158
Job Reference (optional)					

NOTES-

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2871039	Truss A15	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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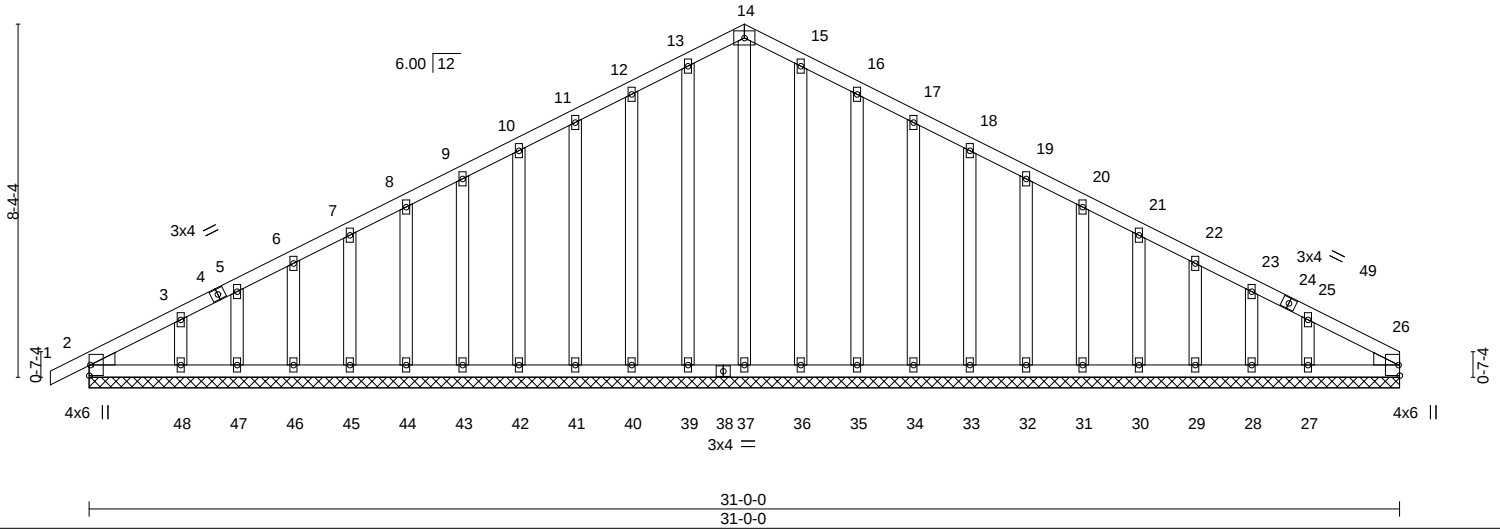
I47037159

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:23 2021 Page 1
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0-11-015-6-0
15-6-031-0-0
15-6-0

Scale = 1:54.5

4x6 ==



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.06	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0	Lumber DOL 1.15	WB 0.18	Vert(CT) 0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 26 n/a n/a		
	Code IRC2018/TPI2014			Weight: 181 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 31-0-0.

(lb) - Max Horz 2=148(LC 16)

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

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

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

TOP CHORD 13-14=-95/264, 14-15=-95/264

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) -0-11-0 to 2-2-0, Exterior(2N) 2-2-0 to 15-6-0, Corner(3R) 15-6-0 to 18-7-3, Exterior(2N) 18-7-3 to 31-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 26.
- 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.



July 16, 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

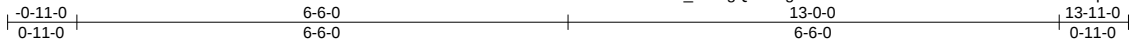
Job 2871039	Truss B1	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037160

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:35 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGvv6-KfGW0G9hn7Ja54Ba0fBxuFipP7lqw4s86rpkwYyxXdk



4x6 =

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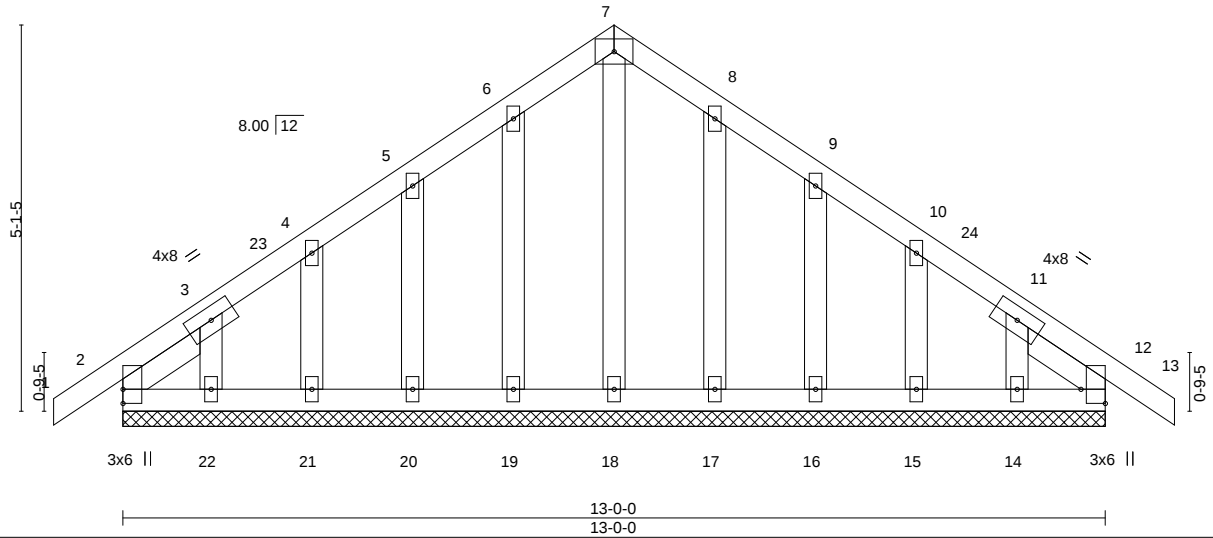


Plate Offsets (X,Y)-- [12:Edge,0-3-14]

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 12	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00 13	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 65 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 OTHERS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 1-3-10, Right 2x4 SPF No.2 1-3-10

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 13-0-0.

(lb) - Max Horz 2=129(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14

Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 19, 20, 21, 22, 17, 16, 15, 14

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) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 6-6-0, Corner(3R) 6-6-0 to 9-6-0, Exterior(2N) 9-6-0 to 13-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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, 12, 19, 20, 21, 22, 17, 16, 15, 14.
- 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.



July 16, 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 2871039	Truss B2	Truss Type ROOF SPECIAL	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)	I47037161
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Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:36 2021 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-prquEbAJYRRRiEmmZMiAQTFwpX?aVLHLVYHS?yxXdj



4x6 ||

Scale: 3/8"=1'

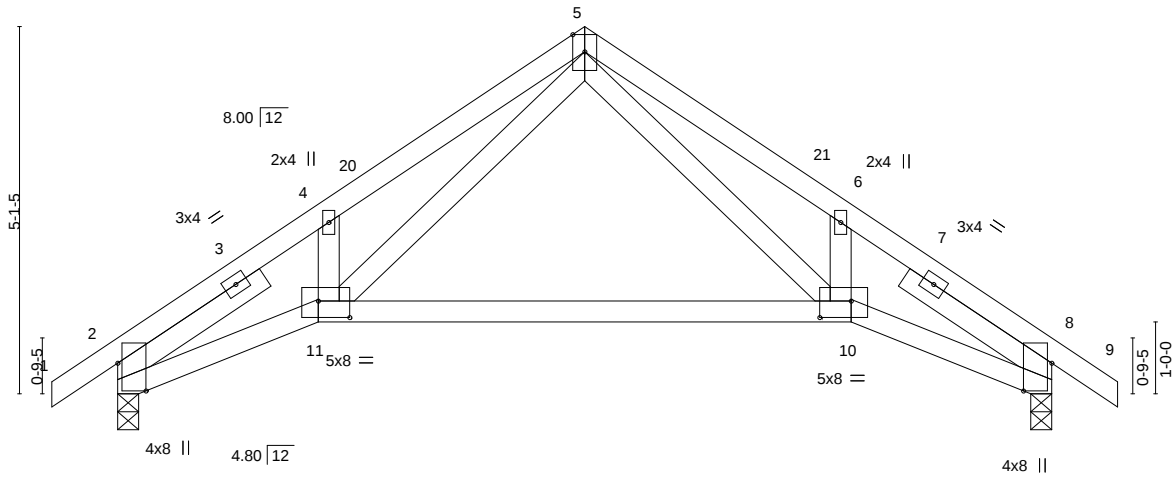


Plate Offsets (X,Y)--	[2:0-4-10,Edge], [8:0-4-10,Edge], [10:0-5-4,0-2-12], [11:0-5-4,0-2-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.11 10-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.25 10-11	>623	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.07 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 56 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-129(LC 10)
Max Uplift 2=-109(LC 12), 8=-109(LC 13)
Max Grav 2=649(LC 1), 8=649(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1215/227, 4-5=-1165/343, 5-6=-1165/351, 6-8=-1215/234
BOT CHORD 2-11=-196/1060, 10-11=-37/495, 8-10=-126/1011
WEBS 5-10=-188/651, 5-11=-233/712

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 13-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=109, 8=109.
- 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.



July 16, 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

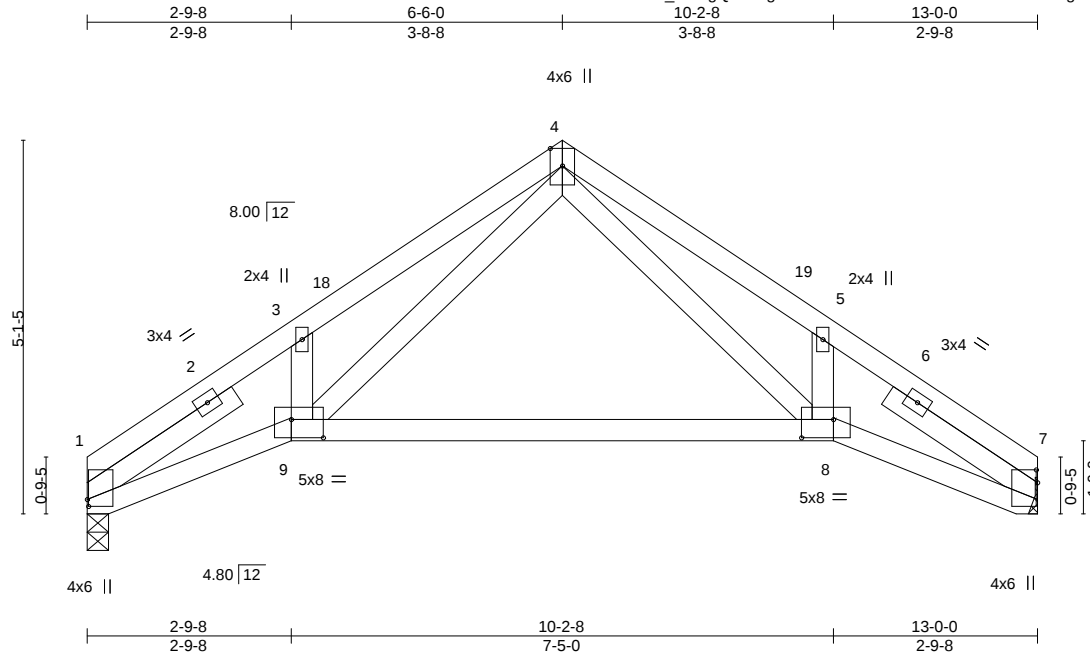
Job 2871039	Truss B3	Truss Type Roof Special	Qty 4	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037162

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:37 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-H2OHRxBxJIZIKNKz74DPzgo5awLpOyVRa9lq_RyxXdi



Scale = 1:31.5

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.20	Vert(LL) -0.11	8-9	>999	240		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.44	Vert(CT) -0.25	8-9	>623	180			
BCLL 0.0	Rep Stress Incr YES	WB 0.16	Horz(CT) 0.07	7	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS						Weight: 53 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 7=Mechanical
 Max Horz 1=-113(LC 8)
 Max Uplift 1=-88(LC 12), 7=-88(LC 13)
 Max Grav 1=585(LC 1), 7=585(LC 1)

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

TOP CHORD 1-3=-1241/266, 3-4=-1193/379, 4-5=-1193/374, 5-7=-1241/262
 BOT CHORD 1-9=-219/1069, 8-9=-51/503, 7-8=-171/1037
 WEBS 4-8=-204/674, 4-9=-243/727

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) 0-0-0 to 2-11-4, Interior(1) 2-11-4 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 13-0-0 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



July 16, 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 2871039	Truss B5	Truss Type Flat Girder	Qty 1	Ply 2	SUMMIT/HAWTHORNE RIDGE#105/MO I47037163
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:38 2021 Page 1
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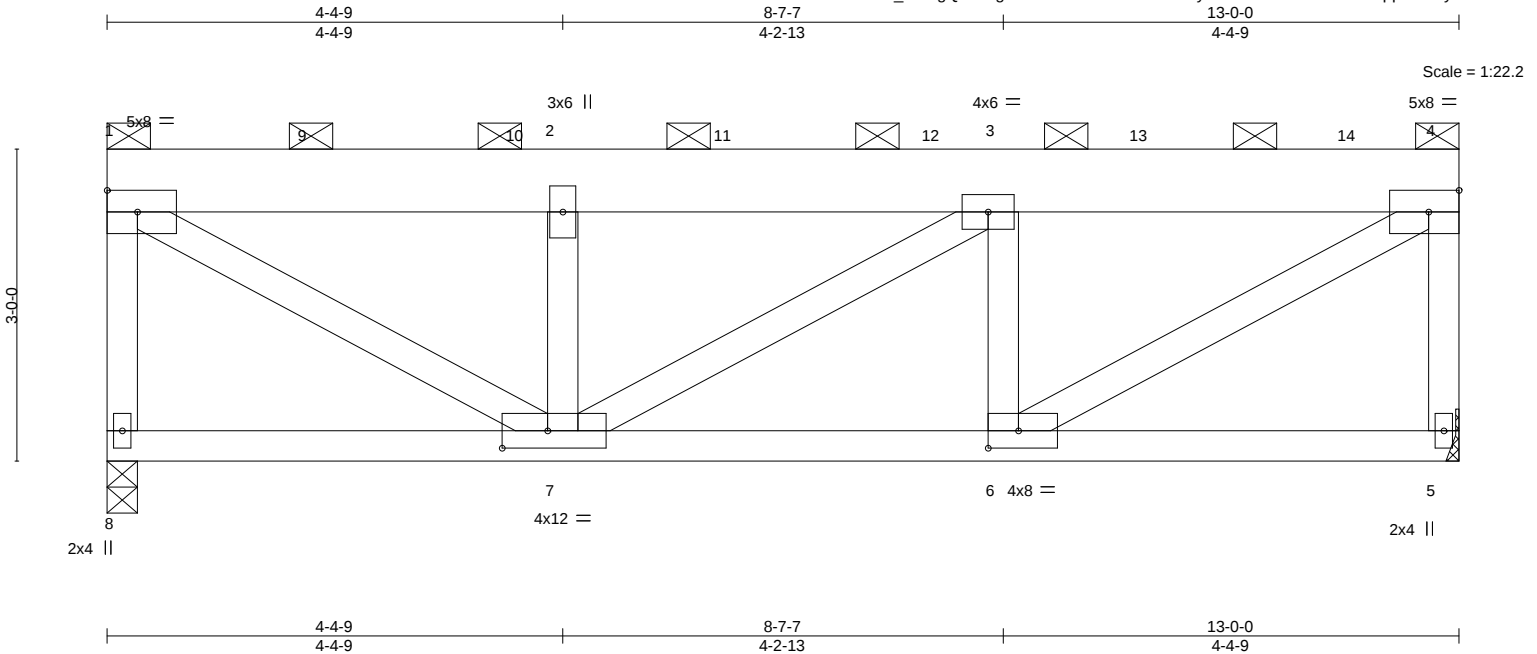


Plate Offsets (X,Y)-- [6:0-3-8,0-2-0], [7:0-5-4,0-2-0]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	-0.04	6-7	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.07	6-7	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.55	Horz(CT)	0.01	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 169 lb	FT = 20%

LUMBER-

TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=0-3-8, 5=Mechanical
Max Horz 8=-97(LC 4)
Max Uplift 8=-508(LC 4), 5=-572(LC 5)
Max Grav 8=3017(LC 1), 5=3436(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-2955/518, 1-2=-3886/646, 2-3=-3886/646, 3-4=-3925/654, 4-5=-3373/582
BOT CHORD 6-7=-680/3925
WEBS 1-7=-751/4456, 2-7=-2211/417, 3-6=-2257/435, 4-6=-758/4495

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=508, 5=572.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 13 lb down and 14 lb up at 0-1-12, 884 lb down and 153 lb up at 2-0-0, 884 lb down and 153 lb up at 4-0-0, 884 lb down and 153 lb up at 6-0-0, 884 lb down and 153 lb up at 8-0-0, and 884 lb down and 153 lb up at 10-0-0, and 889 lb down and 154 lb up at 12-0-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2



July 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO
2871039	B5	Flat Girder	1	2	I47037163

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-70, 5-8=-20

Concentrated Loads (lb)

Vert: 1=-2 9=-884 10=-884 11=-884 12=-884 13=-884 14=-889



Job 2871039	Truss B6	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037164

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:40 2021 Page 1

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

4x6 =

Scale = 1:46.0

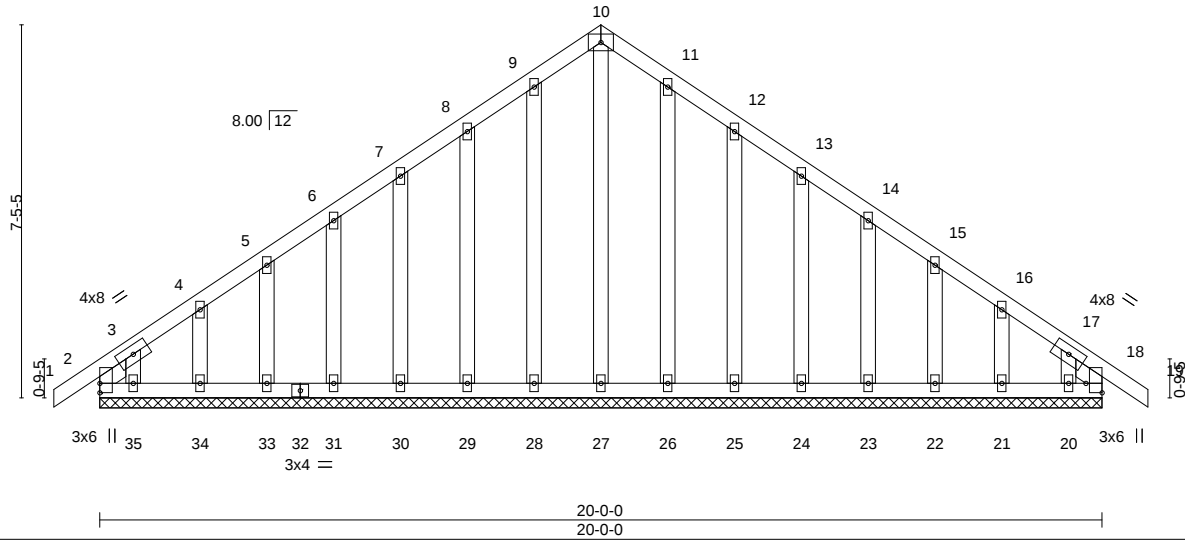


Plate Offsets (X,Y)-- [18:Edge,0-3-14]

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	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	19	n/r		
BCLL 0.0	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.00	18	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 116 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 0-8-7, Right 2x4 SPF No.2 0-8-7

BRACING-

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

REACTIONS.

All bearings 20-0-0.

(lb) - Max Horz 2=190(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 28, 29, 30, 31, 33, 34, 26, 25, 24, 23, 18, 22, 21 except
2=-113(LC 8), 35=-136(LC 12), 20=-112(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 2, 27, 28, 29, 30, 31, 33, 34, 35, 26, 25, 24, 23, 18, 22,
21, 20

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

TOP CHORD 2-3=-250/186

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) 0-11-0 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 20-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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) 28, 29, 30, 31, 33, 34, 26, 25, 24, 23, 18, 22, 21 except (jt=lb) 2=113, 35=136, 20=112.
- 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.



July 16, 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

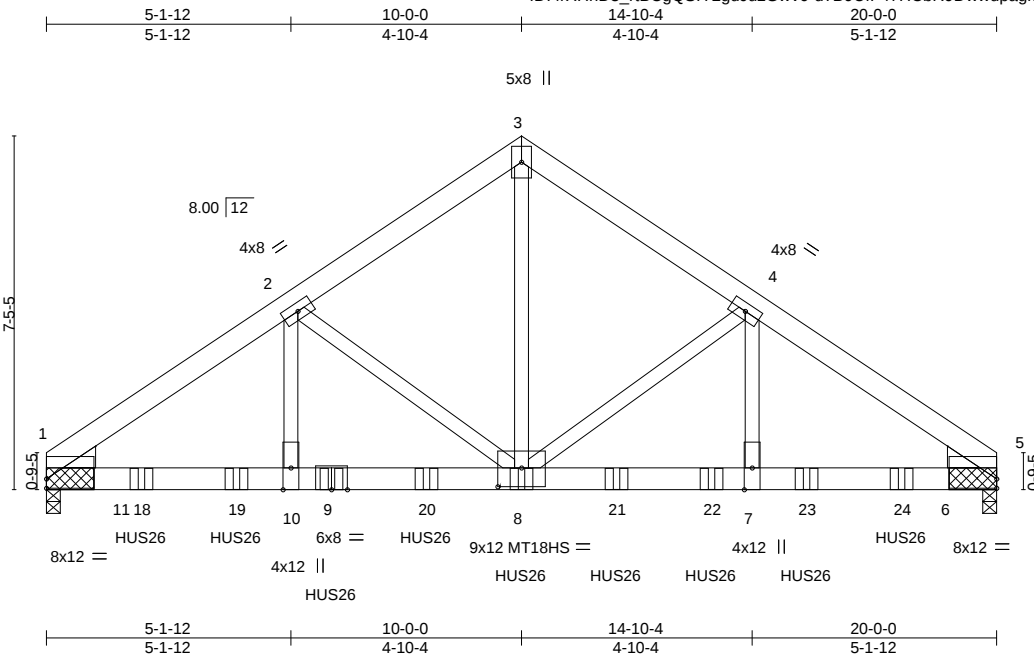


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2871039	Truss B7	Truss Type COMMON GIRDER	Qty 1	Ply 2	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037165

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:42 2021 Page 1
ID:4rXHhD3_rtbCgQSIY2gdJuzGwv6-d?B9UfF47HCbR9DwwdpagkVvwx?_308AkR?bfeyxXdd

Scale = 1:48.5

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.36	Vert(LL) -0.12	8-10	>999	240	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.63	Vert(CT) -0.21	7-8	>999	180	MT18HS	197/144
BCLL 0.0	Lumber DOL 1.15	WB 0.91	Horz(CT) 0.06	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix MS					Weight: 236 lb	FT = 20%
	Code IRC2018/TPI2014							

LUMBER-

TOP CHORD 2x6 SPF No.2
 BOT CHORD 2x6 SPF 2100F 1.8E
 WEBS 2x4 SPF No.2
 WEDGE
 Left: 2x6 SP No.2 , Right: 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-7 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=(0-3-8 + bearing block) (req. 0-4-9), 5=(0-3-8 + bearing block) (req. 0-4-9)
 Max Horz 1=-174(LC 27)
 Max Uplift 1=-1307(LC 8), 5=-1313(LC 9)
 Max Grav 1=7226(LC 1), 5=7212(LC 1)

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

TOP CHORD 1-2=-10150/1859, 2-3=-7153/1399, 3-4=-7153/1399, 4-5=-10137/1865
 BOT CHORD 1-10=-1572/8317, 8-10=-1572/8317, 7-8=-1466/8307, 5-7=-1466/8307
 WEBS 3-8=-1407/7382, 4-8=-3011/673, 4-7=-554/3271, 2-8=-3024/666, 2-10=-546/3285

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 2x6 SPF 2100F 1.8E bearing block 12" long at jt. 1 attached to each face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12
 Total fasteners per block. Bearing is assumed to be SPF 2100F 1.8E.
- 2x6 SPF 2100F 1.8E bearing block 12" long at jt. 5 attached to each face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12
 Total fasteners per block. Bearing is assumed to be SPF 2100F 1.8E.
- 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
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
 1=-1307, 5=-1313.
- 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.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 4-0-0 oc max. starting at 2-0-0 from the left end to 18-0-0 to connect truss(es) to back face of bottom chord.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 10-0-0 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.



July 16, 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/HAWTHORNE RIDGE#105/MO
2871039	B7	COMMON GIRDER	1	2	I47037165

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:42 2021 Page 2
ID:4rXHhD3_rtBCgQSIY2gdJuzGvv6-d?B9UfF47HCbR9DwwdpagkVwww?_308AkR?bfeyxXdd

NOTES-
13) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 12-15=-20
Concentrated Loads (lb)
Vert: 9=-1409(B) 8=-1400(B) 18=-1409(B) 19=-1409(B) 20=-1400(B) 21=-1409(B) 22=-1400(B) 23=-1400(B) 24=-1400(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO
2871039	B8	COMMON	2	1	l47037166
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:43 2021 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-5BIYi?GiubKS2lo7UKKpCx17ZLK EoeBJy5i9C5yxXdc

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

4x6 =

Scale = 1:45.0

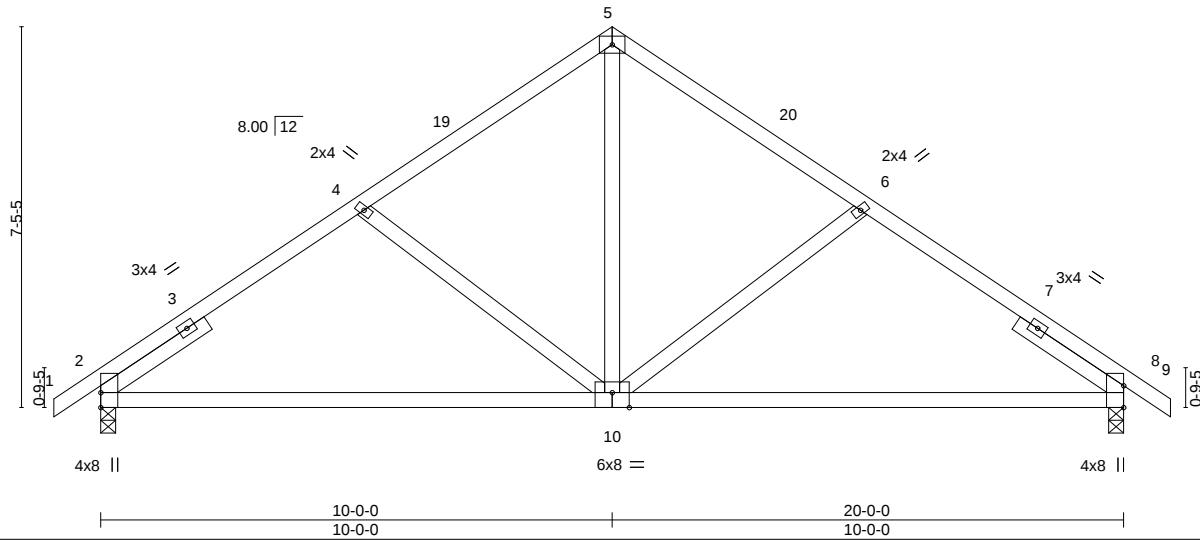


Plate Offsets (X,Y)-- [10:0-4-0,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	-0.13 10-17	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.27 10-17	>893	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.02 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 80 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 8=0-3-8
Max Horz 2=-190(LC 10)
Max Uplift 2=-159(LC 12), 8=-159(LC 13)
Max Grav 2=964(LC 1), 8=964(LC 1)

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

TOP CHORD 2-4=-1008/216, 4-5=-897/205, 5-6=-897/205, 6-8=-1008/216
BOT CHORD 2-10=-194/909, 8-10=-87/892
WEBS 5-10=-91/545, 6-10=-321/211, 4-10=-321/210

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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=159, 8=159.
- 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.



July 16, 2021

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

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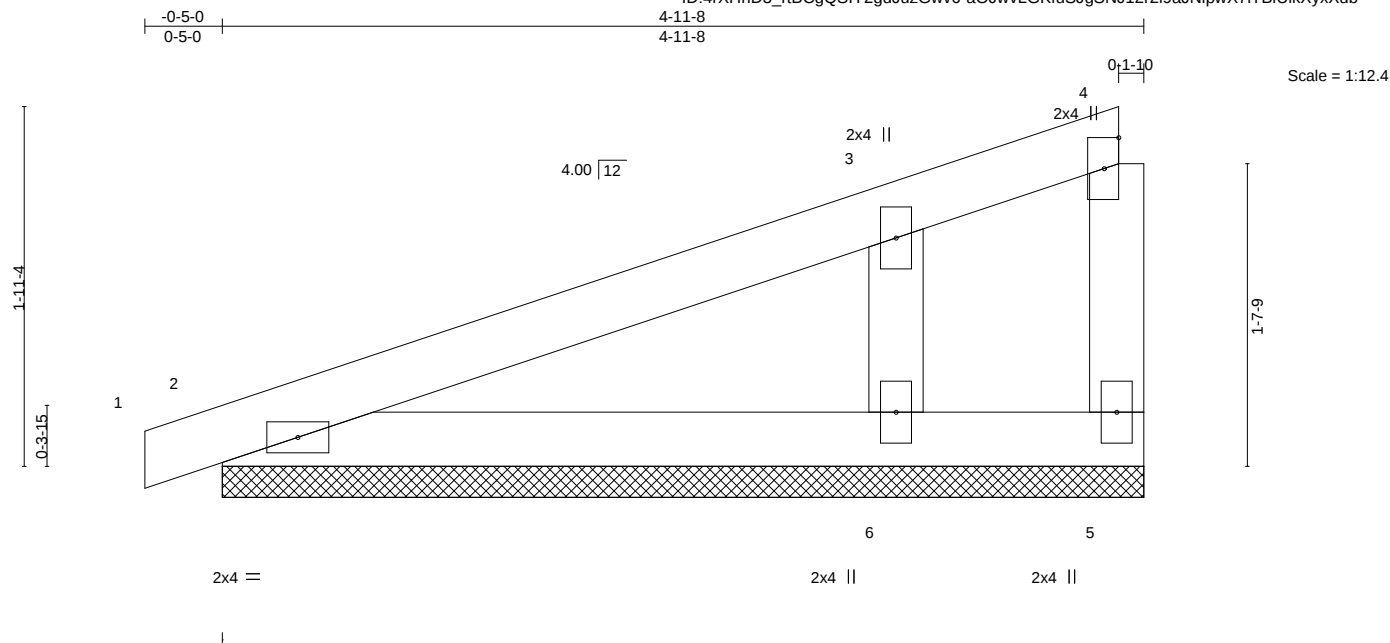
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2871039	Truss C1	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)	I47037167
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:44 2021 Page 1

ID:4rXhHd3_rBCgQSIY2gdJuzGwv6-aOJwvLGKfuSjgSNJ12r2I9aJNlpwX7iTBiukXyxXdb



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL) -0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) 0.00	1	n/r	120		
BCLL 0.0	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P					Weight: 15 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 5=4-11-8, 2=4-11-8, 6=4-11-8
Max Horz 2=75(LC 9)
Max Uplift 5=-44(LC 1), 2=-39(LC 8), 6=-95(LC 12)
Max Grav 5=17(LC 12), 2=163(LC 1), 6=341(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-264/392

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 Corner(3E) -0-5-0 to 2-7-0, Exterior(2N) 2-7-0 to 4-9-5 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) 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.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.
- 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.



July 16, 2021

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

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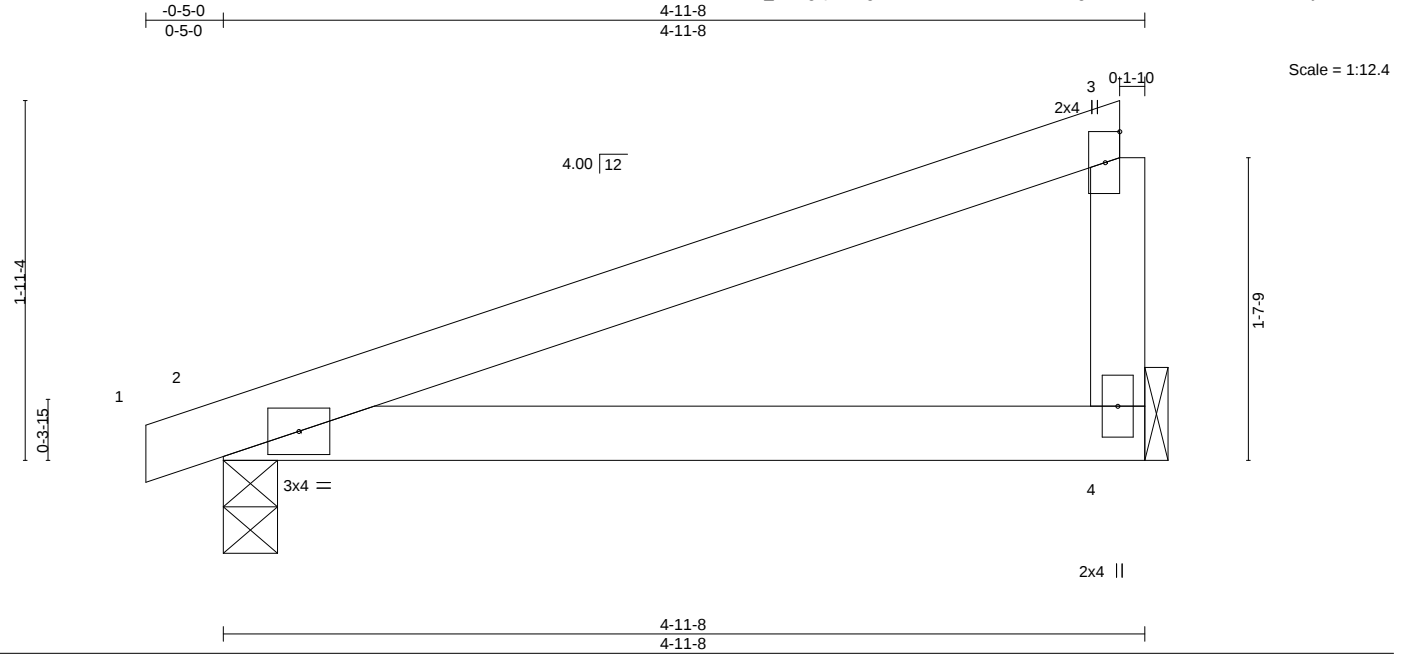
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO
2871039	C2	MONO TRUSS	6	1	I47037168
Job Reference (optional)					

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:44 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-aOJwvLGKfuSjgSNJ12r2l9aHllmGX8nTBIUikXyxXdb



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.30	Vert(LL) 0.04	4-7	>999	240		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.26	Vert(CT) -0.06	4-7	>937	180			
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	2	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS							
								Weight: 14 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 4=Mechanical
Max Horz 2=75(LC 11)
Max Uplift 2=-62(LC 8), 4=-54(LC 12)
Max Grav 2=247(LC 1), 4=215(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-5-0 to 2-7-0, Interior(1) 2-7-0 to 4-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) 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.



July 16, 2021

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

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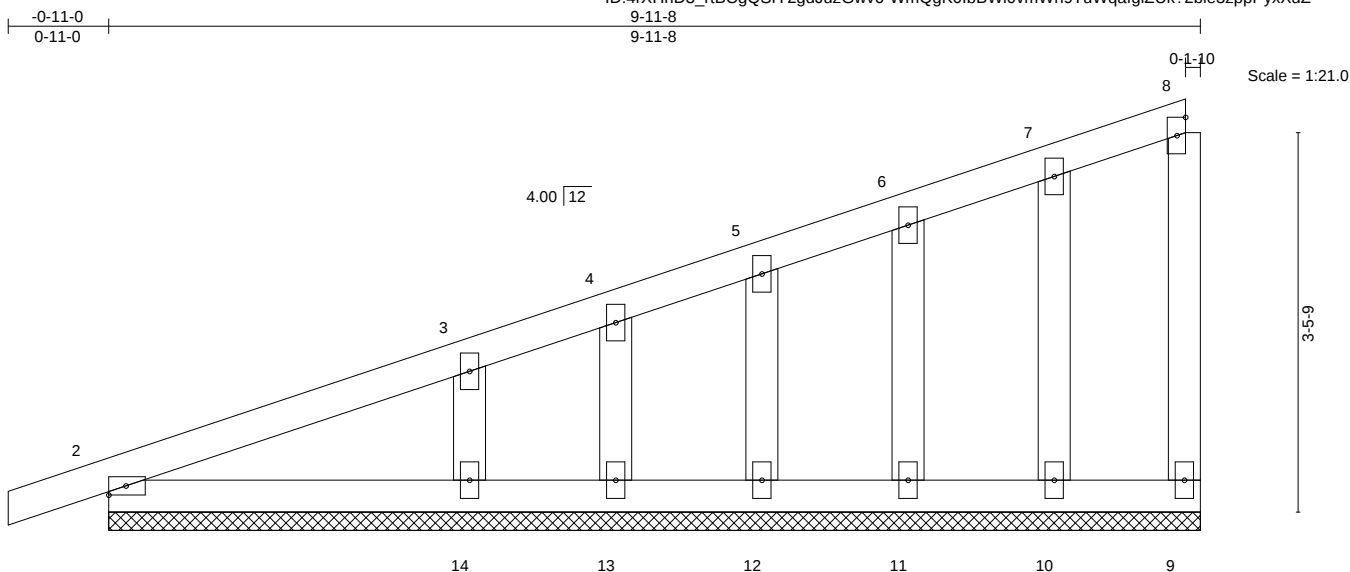


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO
2871039	C4	Monopitch Supported Gable	1	1	l47037170
Job Reference (optional)					

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:46 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-WmQgK0lbBWi0vmWh9TuWqafgiZUk?2ble3zppPyxXdZ



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0	Lumber DOL 1.15	WB 0.04	Vert(CT) 0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 9 n/a n/a		
	Code IRC2018/TPI2014			Weight: 39 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

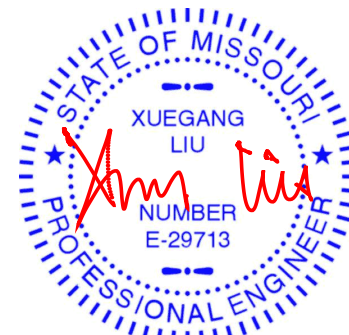
All bearings 9-11-8.
(lb) - Max Horz 2=156(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 9, 2, 10, 11, 12, 13, 14
Max Grav All reactions 250 lb or less at joint(s) 9, 2, 10, 11, 12, 13 except 14=287(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-291/142

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 Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 9-9-5 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) 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.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 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) 9, 2, 10, 11, 12, 13, 14.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 16, 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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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 2871039	Truss C5	Truss Type Monopitch	Qty 9	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)	I47037171
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:47 2021 Page 1
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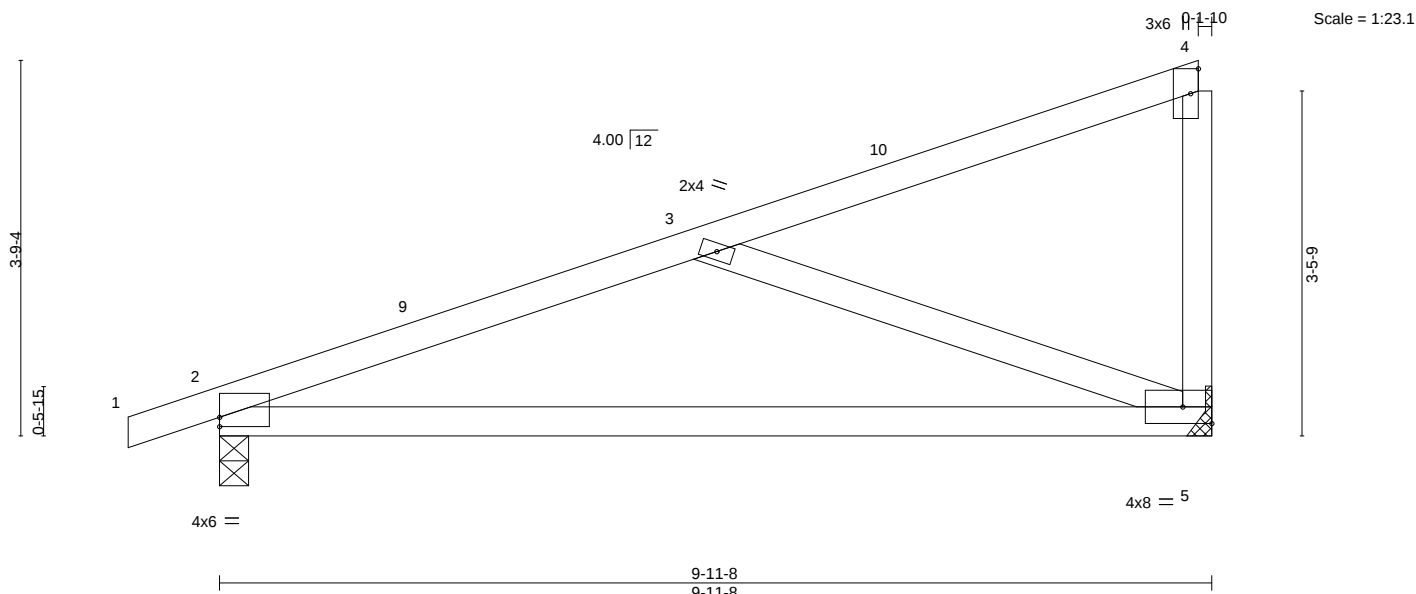


Plate Offsets (X,Y)-- [2:0-0-0,0-1-2]

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

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 5=Mechanical
Max Horz 2=158(LC 11)
Max Uplift 2=-129(LC 8), 5=-112(LC 12)
Max Grav 2=509(LC 1), 5=439(LC 1)

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

TOP CHORD 2-3=-694/313
BOT CHORD 2-5=-417/636
WEBS 3-5=-622/394

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 9-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=129, 5=112.
- 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.



July 16, 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

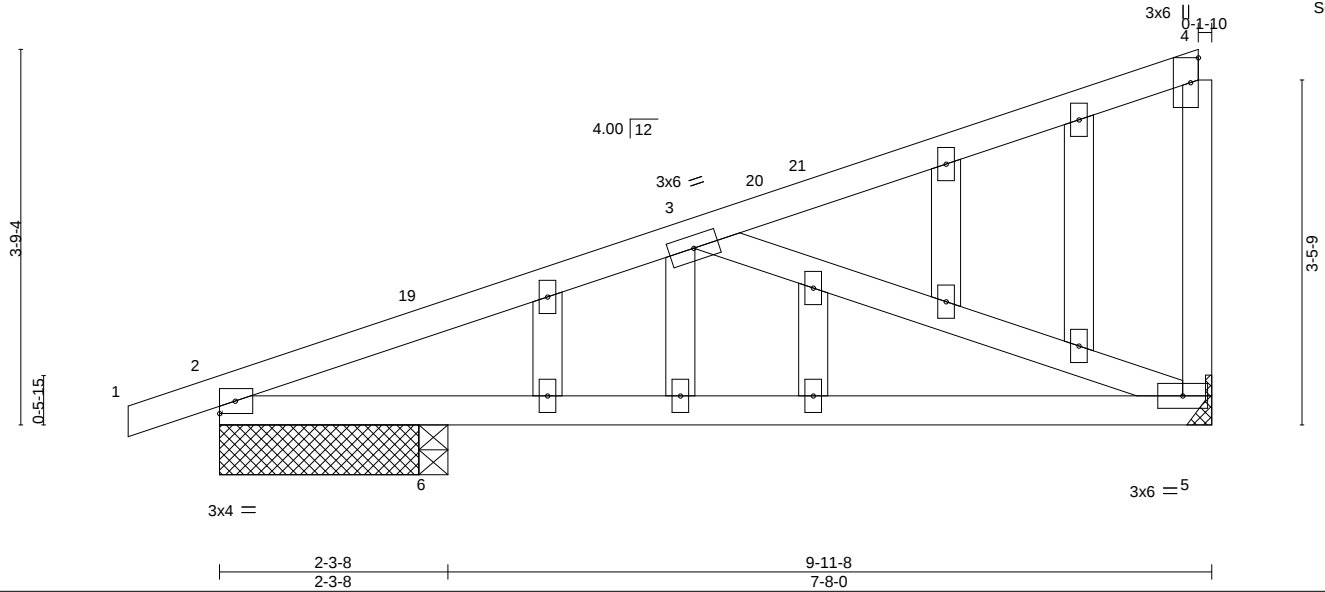
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO	I47037172
2871039	C6	Common Structural Gable	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:47 2021 Page 1
ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-_z_2XMJDypqtXw5ujAPmNnCpaylykRUvtijMLsyxXdY

-0-11-0 4-11-14 9-11-8
0-11-0 4-11-14 4-11-10

Scale = 1:23.1



LOADING (psf)		SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL	25.0	2-0-0	TC 0.23	in (loc) l/defl L/d	MT20	197/144
TCDL	10.0	Plate Grip DOL 1.15	BC 0.39	Vert(LL) -0.08 5-6 >999 240		
BCLL	0.0	Lumber DOL 1.15	WB 0.26	Vert(CT) -0.16 5-6 >580 180		
BCDL	10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 5 n/a n/a		
		Code IRC2018/TPI2014			Weight: 42 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=2-0-0, 5=Mechanical, 6=0-3-8
Max Horz 2=158(LC 11)
Max Uplift 2=171(LC 8), 5=122(LC 8)
Max Grav 2=376(LC 1), 5=401(LC 1), 6=321(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-620/284
BOT CHORD 2-6=-449/542, 5-6=-449/542
WEBS 3-5=-534/419

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 9-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=171, 5=122.
- 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.



July 16, 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/HAWTHORNE RIDGE#105/MO
2871039	CJ1	Diagonal Hip Girder	2	1	147037173
Job Reference (optional)					

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:48 2021 Page 1
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1-3-9 2-11-12 5-6-6
1-3-9 2-11-12 2-6-10

Scale = 1:15.5

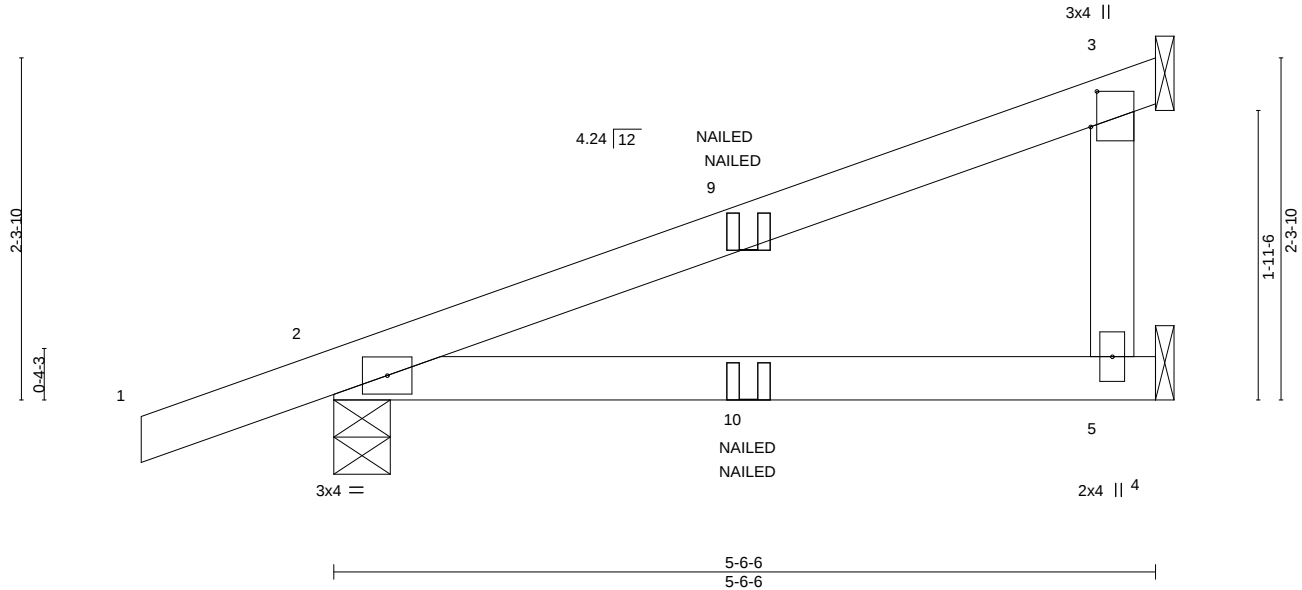


Plate Offsets (X,Y)-- [3:0-2-14,0-0-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.04	5-8	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.08	5-8	>747	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 17 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-4-9, 3=Mechanical, 5=Mechanical
Max Horz 2=101(LC 4)
Max Uplift 2=-102(LC 4), 3=-68(LC 8)
Max Grav 2=342(LC 1), 3=155(LC 1), 5=108(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; 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) 3 except (jt=lb) 2=102.
- 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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 10=-10(F=-5, B=-5)



July 16, 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 2871039	Truss D1	Truss Type Common Supported Gable	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)	I47037174
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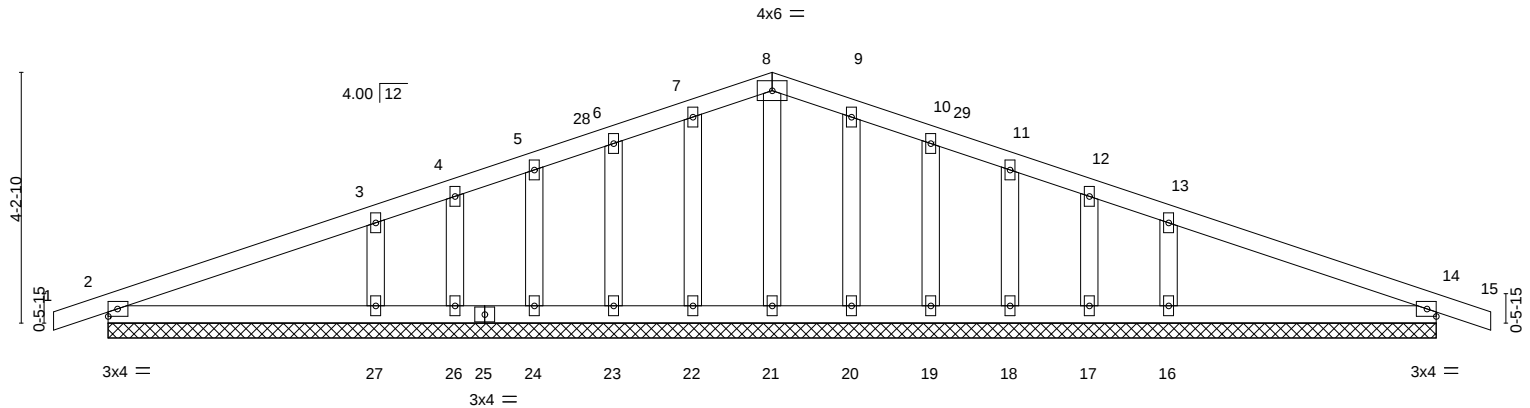
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:50 2021 Page 1

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0-11-0 0-11-0	11-2-0 11-2-0	22-4-0 11-2-0	23-3-0 0-11-0
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Scale = 1:38.7



		22-4-0 22-4-0					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	0.01 15	n/r	120
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	0.02 15	n/r	120
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00 14	n/a	n/a
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 85 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 22-4-0.

(lb) - Max Horz 2=-71(LC 13)

Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 23, 24, 26, 20, 19, 18, 17, 14 except 27=-125(LC 12),
16=-124(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 2, 21, 22, 23, 24, 26, 20, 19, 18, 17, 14 except 27=438(LC 25), 16=438(LC 26)

FORCES.

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

WEBS 3-27=-317/180, 13-16=-317/180

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) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 11-2-0, Corner(3R) 11-2-0 to 14-2-0, Exterior(2N) 14-2-0 to 23-3-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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, 22, 23, 24, 26, 20, 19, 18, 17, 14 except (jt=lb) 27=125, 16=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.



July 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2871039	Truss D2	Truss Type Common	Qty 5	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO I47037175
Job Reference (optional)					

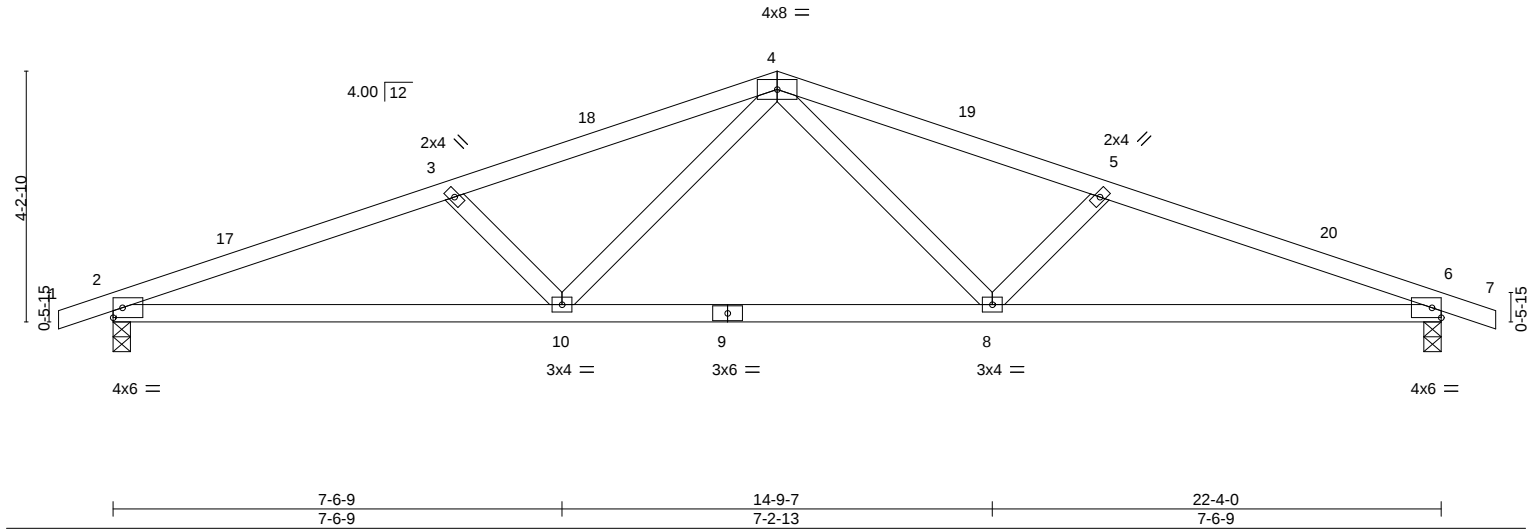
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:51 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-skEZnKmj02KJ0XPhy0TiXdNS2a44gHFVoLhaUdyxXdU

0-11-0	5-8-14	11-2-0	16-7-2	22-4-0	23-3-0
0-11-0	5-8-14	5-5-2	5-5-2	5-8-14	0-11-0

Scale = 1:38.7



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.15	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.28				
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.06				
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							
								Weight: 72 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=-71(LC 17)
Max Uplift 2=-227(LC 8), 6=-227(LC 9)
Max Grav 2=1069(LC 1), 6=1069(LC 1)

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

TOP CHORD 2-3=-2253/540, 3-4=-1981/486, 4-5=-1981/486, 5-6=-2253/540
BOT CHORD 2-10=-449/2076, 8-10=-267/1444, 6-8=-453/2076
WEBS 4-8=-111/593, 5-8=-403/196, 4-10=-110/593, 3-10=-403/196

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 11-2-0, Exterior(2R) 11-2-0 to 14-2-0, Interior(1) 14-2-0 to 23-3-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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=227, 6=227.
- 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.



July 16, 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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2871039	Truss E1	Truss Type Hip Girder	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO I47037176
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:52 2021 Page 1
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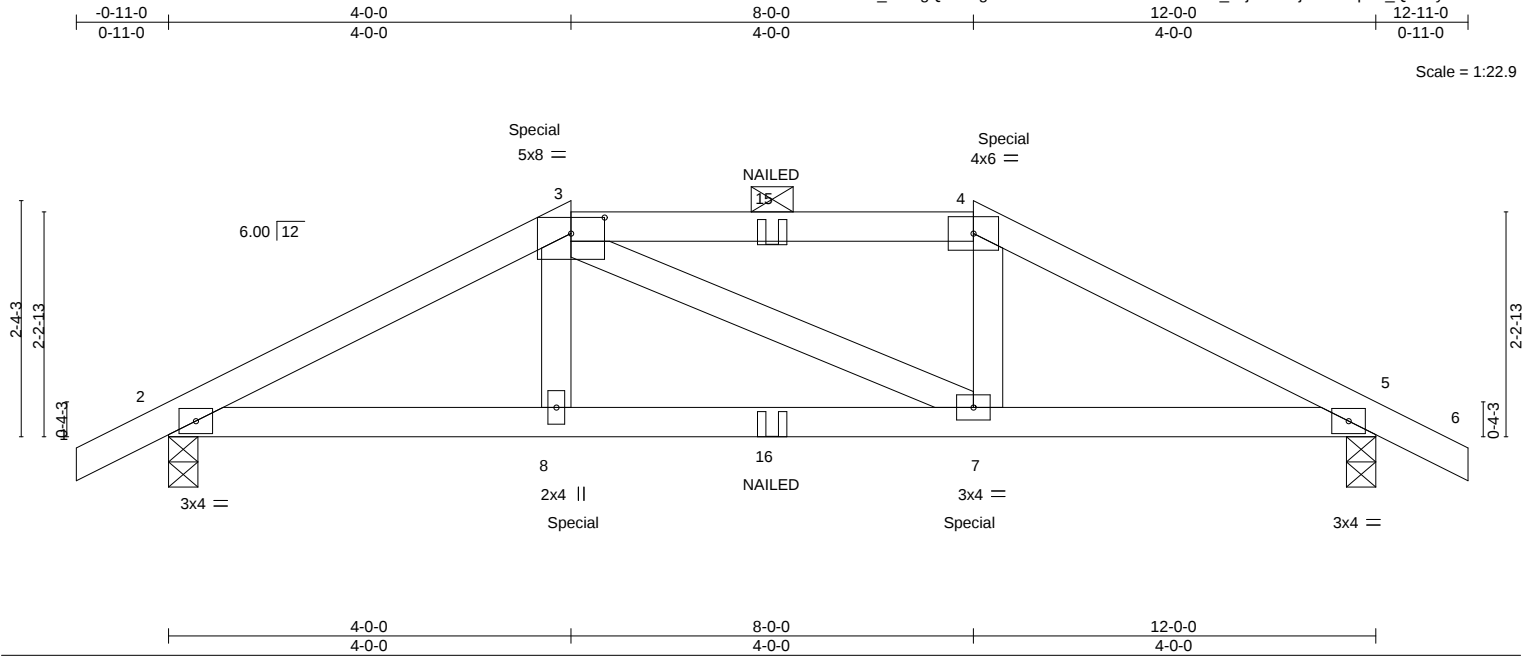


Plate Offsets (X,Y)--		[3:0-4-0,0-1-15]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.03 7-8	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.07 7-8		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.02 5		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS				Weight: 40 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 5=0-3-8
Max Horz 2=-42(LC 13)
Max Uplift 2=-180(LC 8), 5=-180(LC 9)
Max Grav 2=833(LC 1), 5=833(LC 1)

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

TOP CHORD 2-3=-1406/282, 3-4=-1207/285, 4-5=-1407/282
BOT CHORD 2-8=-228/1221, 7-8=-232/1207, 5-7=-206/1222
WEBS 3-8=0/268, 4-7=0/269

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=180, 5=180.
- 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) 162 lb down and 148 lb up at 4-0-0, and 162 lb down and 148 lb up at 8-0-0 on top chord, and 85 lb down at 4-0-0, and 85 lb down 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
Concentrated Loads (lb)
Vert: 4=-103(B) 8=-85(B) 7=-85(B) 3=-103(B) 15=-47(B) 16=-33(B)



July 16, 2021

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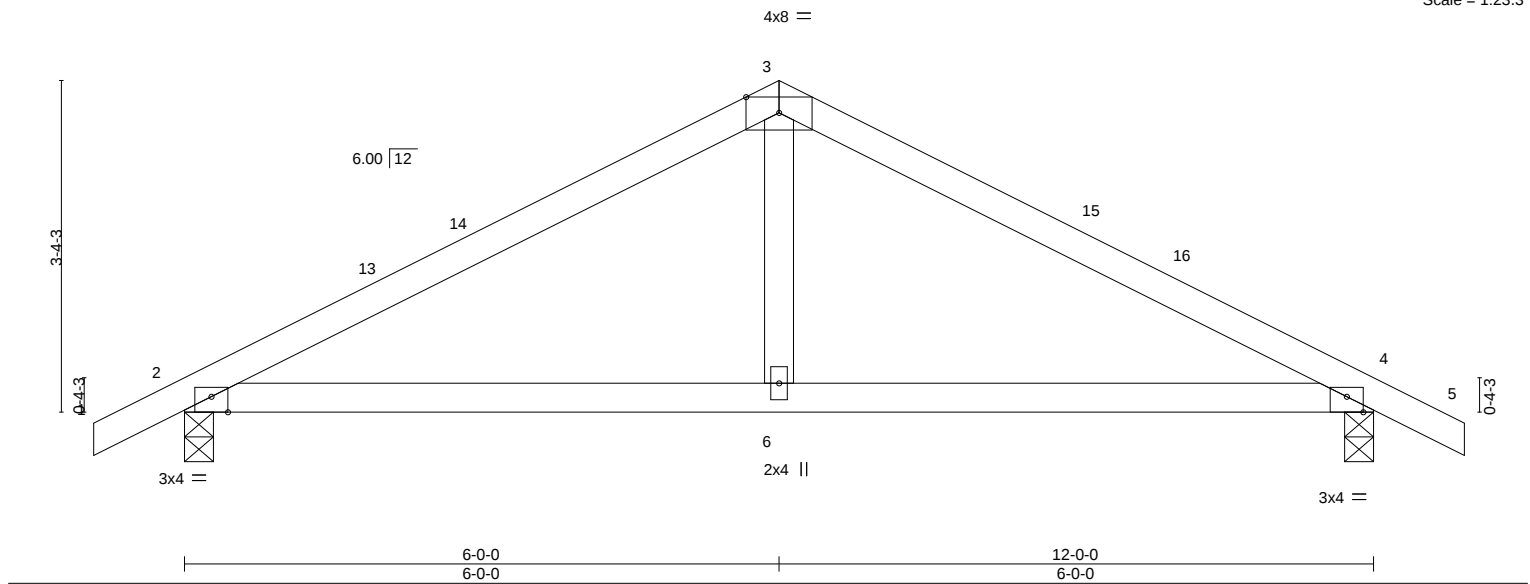
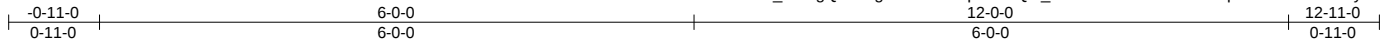
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO
2871039	E2	Common	3	1	l47037177
Job Reference (optional)					

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:53 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-p7LKoQN_Xfa1FrZ23RWAc2SoxNpZ8D2nFeAhYWyXxS



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.05	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.09				
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01				
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

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=-61(LC 17)
Max Uplift 2=-111(LC 12), 4=-111(LC 13)
Max Grav 2=604(LC 1), 4=604(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-770/291, 3-4=-770/291
BOT CHORD 2-6=-134/622, 4-6=-134/622
WEBS 3-6=0/274

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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=111, 4=111.
- 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.



July 16, 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 2871039	Truss J1	Truss Type Jack-Open	Qty 4	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037178

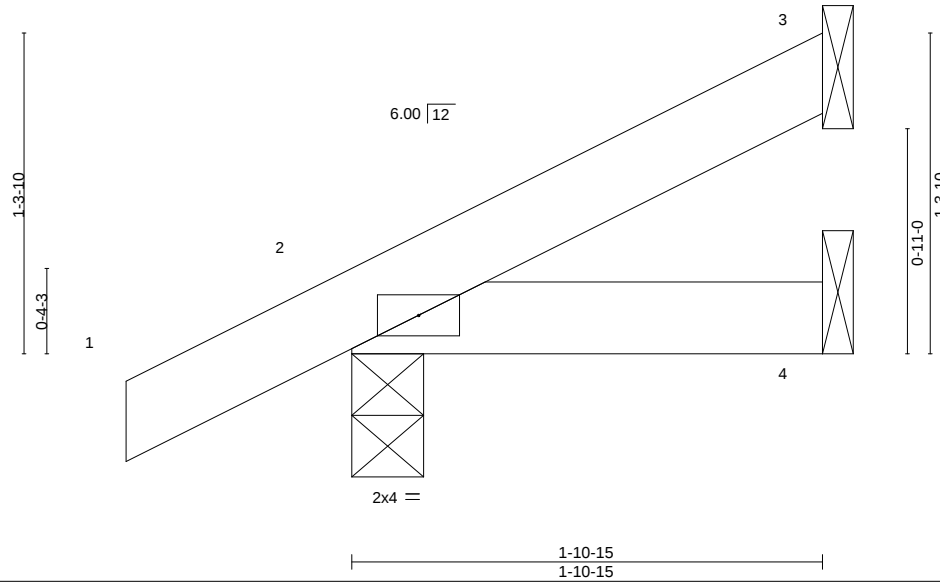
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:54 2021 Page 1
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-0-11-0
0-11-0

1-10-15
1-10-15

Scale = 1:9.4



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00	7	>999	240		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00	7	>999	180			
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	3	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP							
								Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 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=55(LC 12)
Max Uplift 3=-24(LC 12), 2=-37(LC 12)
Max Grav 3=48(LC 1), 2=165(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.
- 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.



July 16, 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

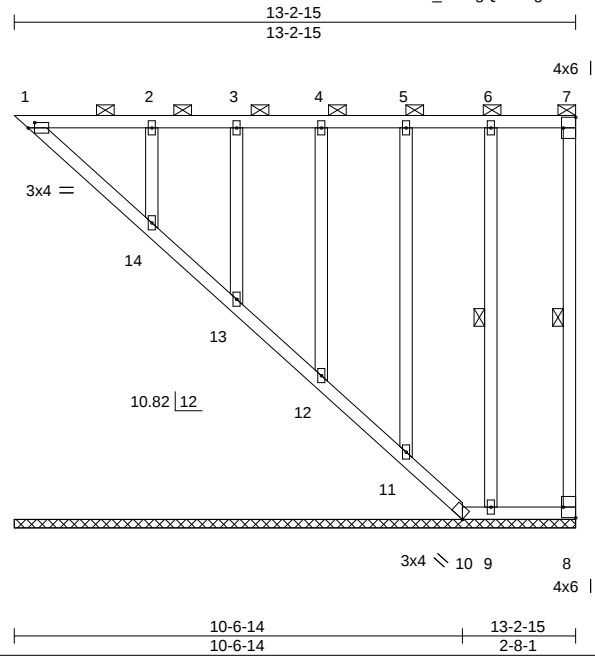


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2871039	Truss L1	Truss Type GABLE	Qty 2	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037179

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:55 2021 Page 1
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Plate Offsets (X,Y)--		[1:0-1-14,0-1-8], [7:Edge,0-3-8], [8:Edge,0-3-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 2-0-0	TC 0.51	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(LL) n/a - n/a 999
BCLL 0.0	Rep Stress Incr YES	WB 0.16	Vert(CT) n/a - n/a 999
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) -0.01 8 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 77 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-7, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 1-14,12-13.
 WEBS 1 Row at midpt 7-8, 6-9

REACTIONS.

All bearings 13-2-15.

(lb) - Max Horz 1=261(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 8, 10, 9, 11, 12, 13, 14 except 1=-108(LC 11)

Max Grav All reactions 250 lb or less at joint(s) 1, 8, 10, 9, 11, 12, 13 except 14=270(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 Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 10, 9, 11, 12, 13, 14 except (jt=lb) 1=108.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 11, 12, 13, 14.
- 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.



July 16, 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 2060116023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2871039	Truss L2	Truss Type Lay-In Gable	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037180

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:55 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-IVT4D5PE3HqIU8jQBsyehTXDTBaVc7M4jyfnD0yxXdQ

1-11-0
1-11-03-9-15
1-11-0

Scale = 1:13.5

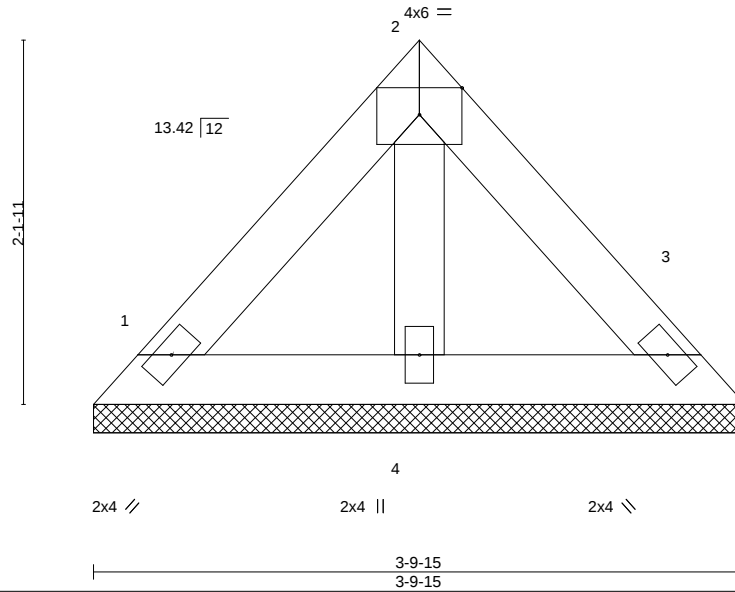


Plate Offsets (X,Y)--		[2:Edge,0-1-14]	
LOADING (psf)		SPACING-	2-0-0
TCLL 25.0		Plate Grip DOL	1.15
TCDL 10.0		Lumber DOL	1.15
BCLL 0.0		Rep Stress Incr	YES
BCDL 10.0		Code	IRC2018/TPI2014
		CSI.	
		TC 0.05	
		BC 0.02	
		WB 0.01	
		Matrix-P	
		DEFL.	
		in (loc)	l/defl
		Vert(LL) n/a	- n/a
		Vert(CT) n/a	- n/a
		Horz(CT) 0.00	3 n/a
			L/d
			999
			999
			n/a
		PLATES	GRIP
		MT20	197/144
		Weight: 12 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 3-9-15 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-9-15, 3=3-9-15, 4=3-9-15
 Max Horz 1=-48(LC 8)
 Max Uplift 1=-26(LC 13), 3=-22(LC 13)
 Max Grav 1=89(LC 1), 3=89(LC 1), 4=108(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 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.



July 16, 2021

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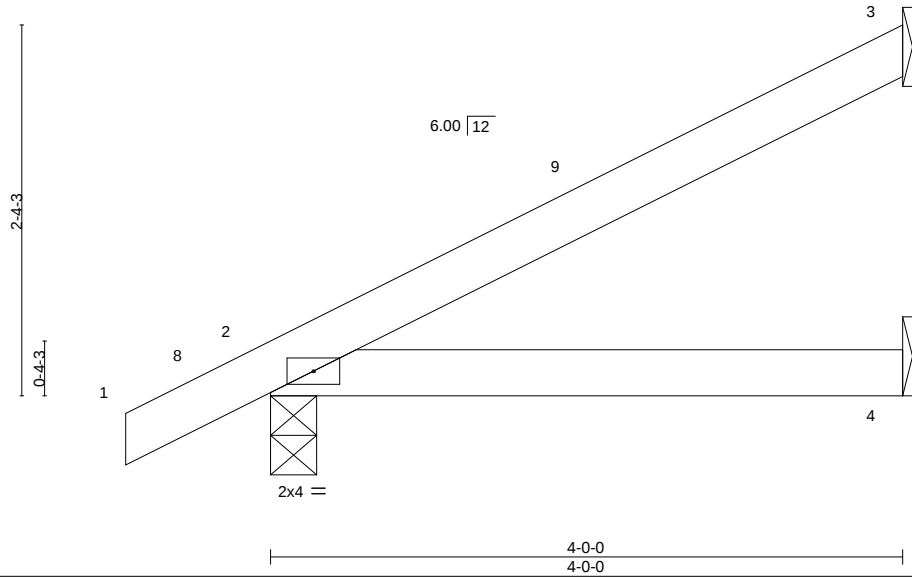
Job 2871039	Truss M1	Truss Type Jack-Open	Qty 3	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037181

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

8,430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:56 2021 Page 1
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Scale = 1:14.6



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.19	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.15	Vert(LL) 0.02 4-7 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.03 4-7 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) -0.00 3 n/a n/a		
	Code IRC2018/TPI2014			Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=96(LC 12)
Max Uplift 3=-60(LC 12), 2=-44(LC 12)
Max Grav 3=117(LC 1), 2=249(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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 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.
- 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.



July 16, 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

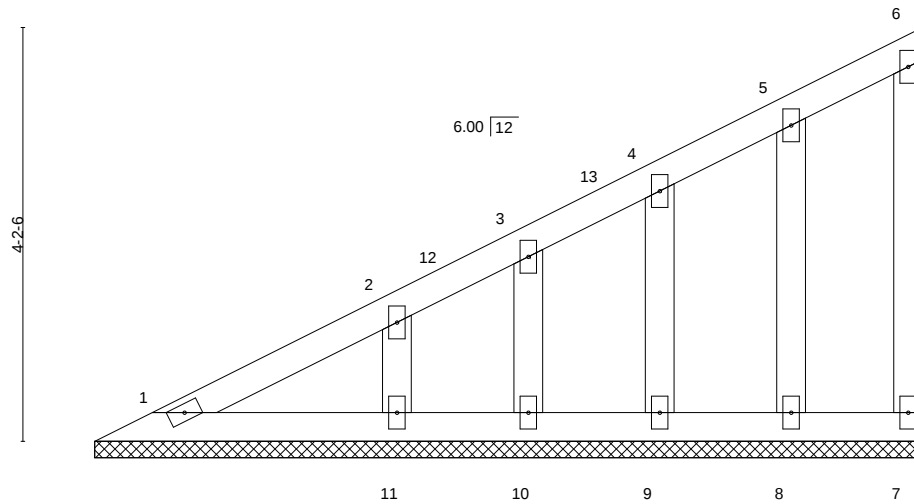
Job 2871039	Truss V6	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037182

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:58 2021 Page 1
ID:4rXHhD3_rnBCgQSIY2gdJuzGww6-949Dr7R6MCDJLcR?s_6LJ69i5OcypTdWPwtSEjyxXdN8-4-13
8-4-13

Scale = 1:23.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 33 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 8-4-13.

(lb) - Max Horz 1=159(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 7, 8, 9, 10, 11

Max Grav All reactions 250 lb or less at joint(s) 1, 7, 8, 9, 10, 11

FORCES.

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

TOP CHORD 1-2=-345/177

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 Corner(3E) 0-7-7 to 3-7-7, Exterior(2N) 3-7-7 to 8-3-1 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
- 2) 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.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 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) 7, 8, 9, 10, 11.
- 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.



July 16, 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 2060116023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2871039	Truss V7	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO Job Reference (optional)
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I47037183

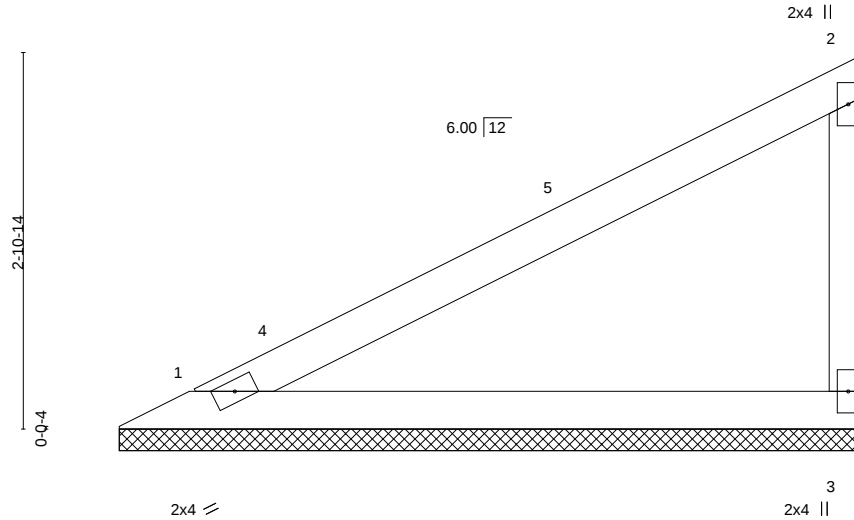
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:59 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-dGjb2TSI7VLAzm0BQhdasJioUotdYwUgead?m9yxXdM

5-9-13
5-9-13

Scale = 1:17.8



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.49	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.27	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						Weight: 16 lb	FT = 20%
	Code IRC2018/TPI2014								

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-9-13 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-9-5, 3=5-9-5
 Max Horz 1=105(LC 9)
 Max Uplift 1=-38(LC 12), 3=-65(LC 12)
 Max Grav 1=227(LC 1), 3=227(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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 5-8-1 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
- 2) Gable requires continuous bottom chord bearing.
- 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) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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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/HAWTHORNE RIDGE#105/MO
2871039	V8	Valley	1	1	I47037184
Job Reference (optional)					

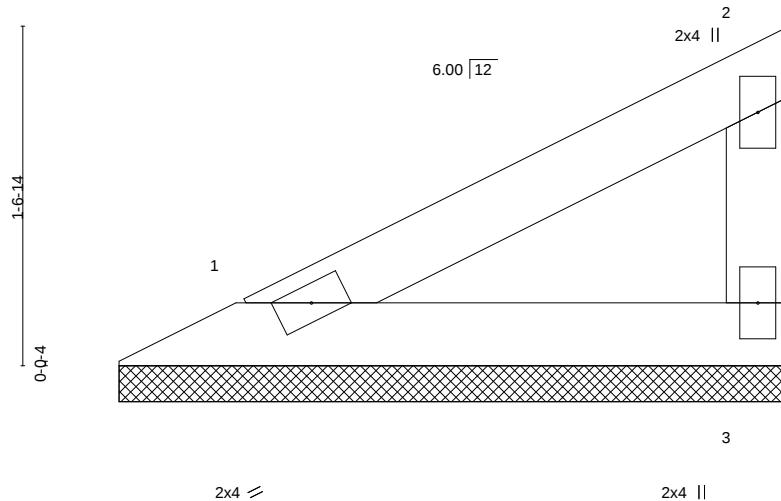
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:14:00 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-6TGzGpTNupT1bwbOzP8pOXF3QCHCHNkpsEMYIcyxXdL

3-1-13
3-1-13

Scale = 1:10.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2018/TPI2014						Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-1-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-1-5, 3=3-1-5
Max Horz 1=50(LC 9)
Max Uplift 1=-18(LC 12), 3=-30(LC 12)
Max Grav 1=107(LC 1), 3=107(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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) Gable requires continuous bottom chord bearing.
- 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) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 16, 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



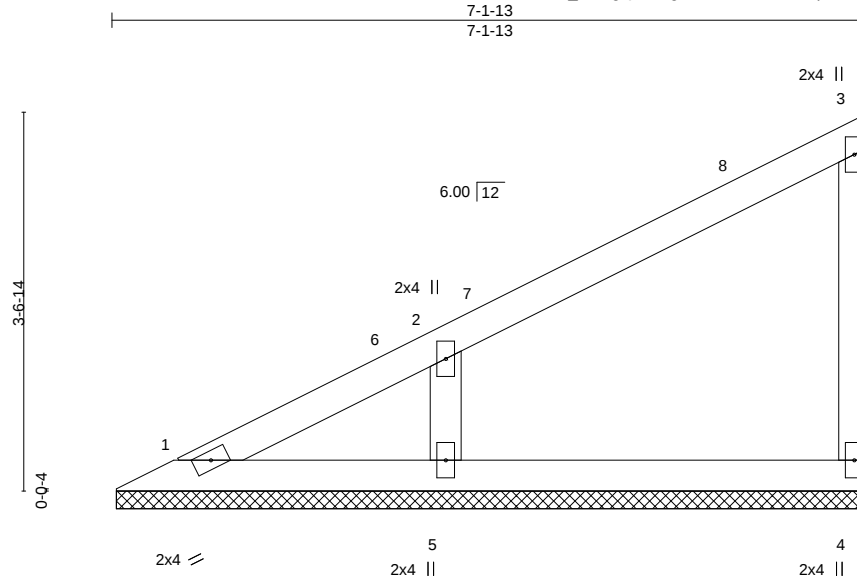
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO
2871039	V9	Valley	1	1	I47037185

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:14:00 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-6TGzGpTNupT1bwbOzP8pOXF20CGTHNopsEMYIcyxXdl



Scale = 1:21.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Lumber DOL 1.15	WB 0.05	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 21 lb	FT = 20%
	Code IRC2018/TPI2014							

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-1-5, 4=7-1-5, 5=7-1-5
Max Horz 1=133(LC 9)
Max Uplift 4=-30(LC 9), 5=-123(LC 12)
Max Grav 1=78(LC 20), 4=140(LC 1), 5=371(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-289/264

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 7-0-1 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
- 2) Gable requires continuous bottom chord bearing.
- 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) 4 except (jt=lb) 5=123.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE RIDGE#105/MO
2871039	V10	Valley	1	1	l47037186

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

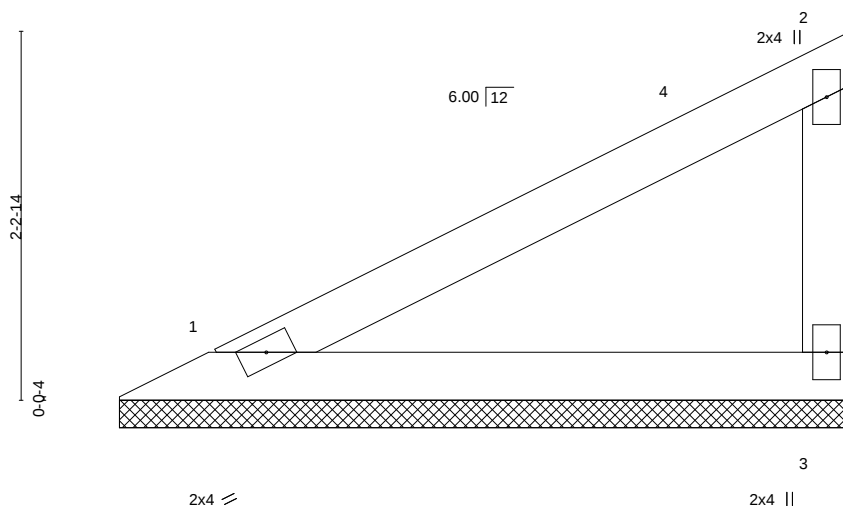
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:57 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-hubqenQUbu5SkSsplGa6nudWI_EB40?NAG8uhHyxXdO

4-5-13

4-5-13

Scale = 1:14.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P						Weight: 12 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-5-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-5-5, 3=4-5-5
Max Horz 1=77(LC 9)
Max Uplift 1=-28(LC 12), 3=-48(LC 12)
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-

- 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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-4-1 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
- 2) Gable requires continuous bottom chord bearing.
- 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) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2871039	Truss V11	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE RIDGE#105/MO I47037187
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Jul 16 09:13:57 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-hubqenQUbu5SkSsplGa6nudZR_GA40?NAG8uhHyxXdO

1-9-13
1-9-13

Scale = 1:7.3

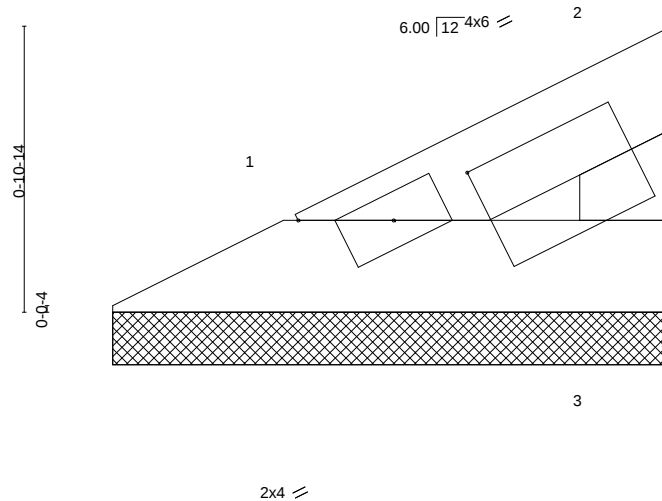


Plate Offsets (X,Y)-- [2:0-6-9,0-1-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 4 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-9-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=1-9-5, 3=1-9-5
Max Horz 1=22(LC 9)
Max Uplift 1=-8(LC 12), 3=-13(LC 12)
Max Grav 1=47(LC 1), 3=47(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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) Gable requires continuous bottom chord bearing.
- 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) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 16, 2021

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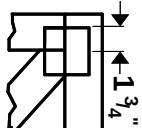
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



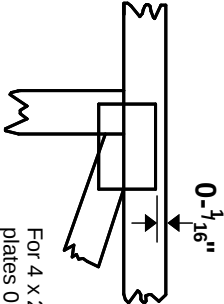
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " from outside edge of truss.

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

*** Plate location details available in MiTek 2012 software or upon request.**

PLATE SIZE

4 X 4

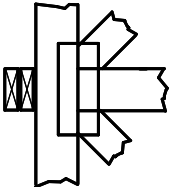
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



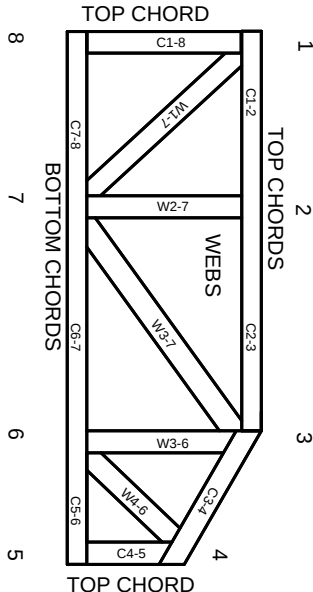
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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.