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

04/23/2021

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

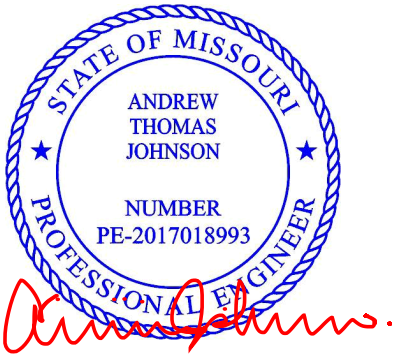
Re: 2742340
Roeser/1487 Winterset

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: I45732318 thru I45732449

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

Missouri COA: Engineering 001193



April 20,2021

Johnson, Andrew ,Engineer

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

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732318
2742340	A1	Hip Girder	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
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DEVELOPMENT SERVICES
STRUCTURAL ONLY
04/22/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 11:38:55 2021 Page 1
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-1-11-0 / 1-11-0 | 2-3-8 / 2-3-8 | 4-6-0 / 2-2-8 | 8-6-0 / 4-0-0 | 10-8-8 / 2-2-8 | 13-0-0 / 2-3-8

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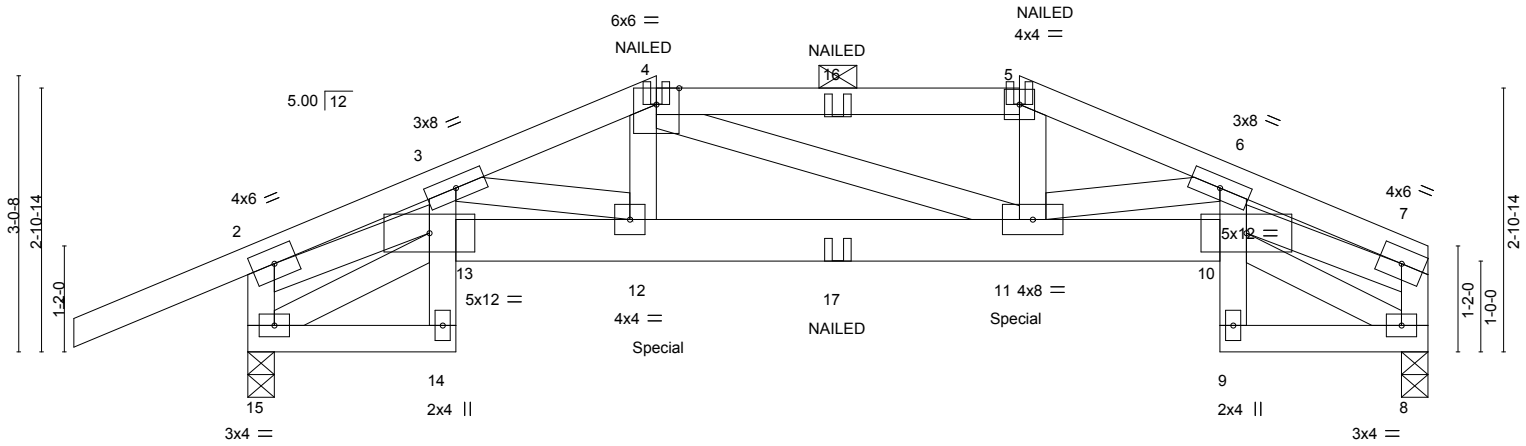

2-3-8 / 2-3-8 | 4-6-0 / 2-2-8 | 8-6-0 / 4-0-0 | 10-8-8 / 2-2-8 | 13-0-0 / 2-3-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.06	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.11	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 65 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
10-13: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 9-7-14 oc bracing.

REACTIONS. (size) 15=0-3-8, 8=0-3-8
Max Horz 15=44(LC 7)
Max Uplift 15=-281(LC 8), 8=-234(LC 9)
Max Grav 15=1031(LC 1), 8=854(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1899/563, 3-4=-1980/614, 4-5=-1842/582, 5-6=-1954/600, 6-7=-2036/591, 2-15=-906/273, 7-8=-759/225
BOT CHORD 12-13=-563/1907, 11-12=-542/1804, 10-11=-585/2019
WEBS 4-12=-113/377, 5-11=-105/387, 2-13=-475/1685, 7-10=-509/1764

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 281 lb uplift at joint 15 and 234 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 227 lb down and 136 lb up at 4-6-0, and 227 lb down and 136 lb up at 8-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 4-5=-70, 5-7=-70, 14-15=-20, 10-13=-20, 8-9=-20
Concentrated Loads (lb)
Vert: 4=-37(B) 5=-37(B) 12=-227(B) 11=-227(B) 16=-37(B) 17=-31(B)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732319
2742340	A4	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 11:38:57 2021 Page 1
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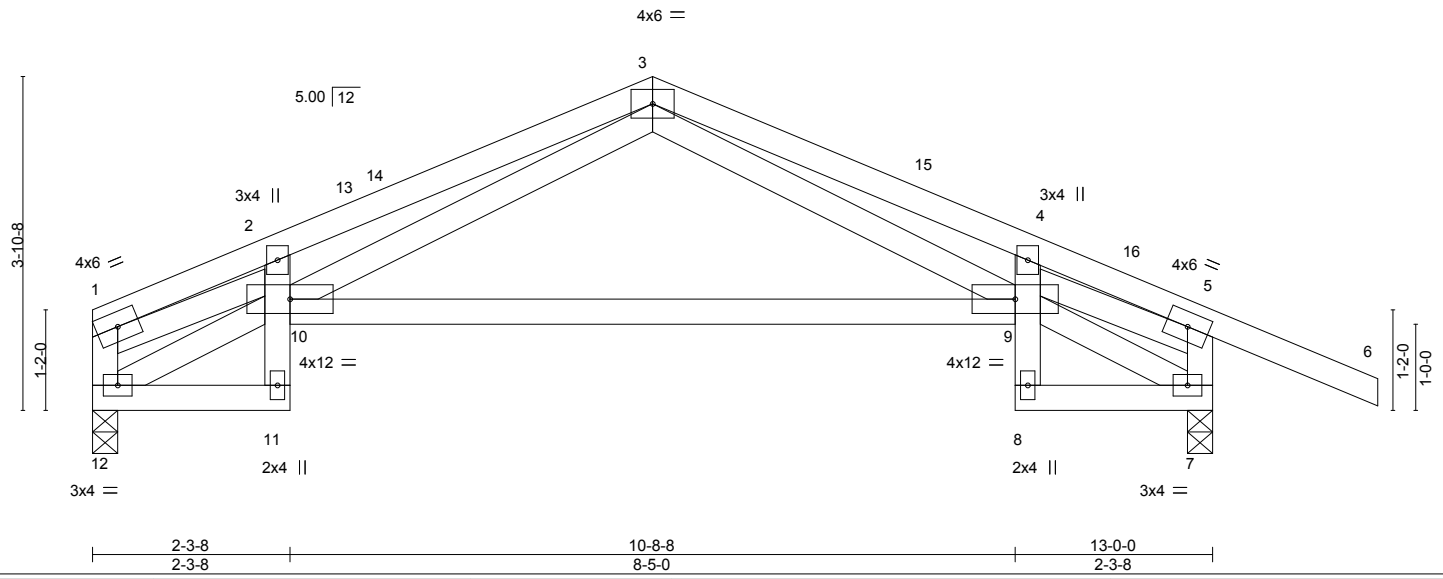

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.16	9-10	>963	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.34	9-10	>448	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.08	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 58 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) 12=0-3-8, 7=0-3-8
Max Horz 12=-42(LC 8)
Max Uplift 12=-72(LC 12), 7=-114(LC 13)
Max Grav 12=560(LC 1), 7=728(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1238/305, 2-3=-1515/413, 3-4=-1398/350, 4-5=-1091/236, 1-12=-532/132, 5-7=-660/231
BOT CHORD 2-10=-265/145, 9-10=-121/681
WEBS 3-9=-107/682, 3-10=-176/821, 1-10=-236/1038, 5-9=-181/981

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 14-11-0 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
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 72 lb uplift at joint 12 and 114 lb uplift at joint 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	A5	Roof Special	2	1	Job Reference (optional)

I45732320

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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LINCOLN SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 11:38:58 2021 Page 1
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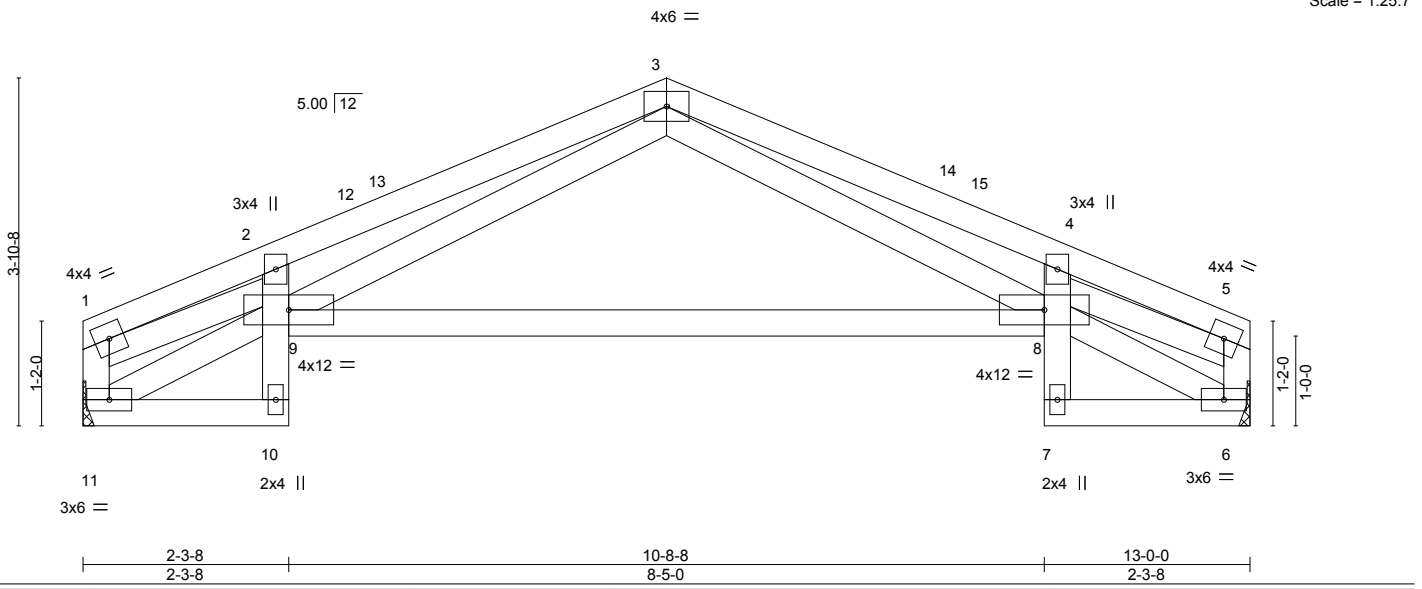


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.16	8-9	>962	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.34	8-9	>445	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.08	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	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

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

REACTIONS. (size) 11=Mechanical, 6=Mechanical
Max Horz 11=26(LC 11)
Max Uplift 11=-72(LC 12), 6=-72(LC 13)
Max Grav 11=572(LC 1), 6=572(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1267/385, 2-3=-1548/503, 3-4=-1548/456, 4-5=-1267/366, 1-11=-543/163, 5-6=-543/163
BOT CHORD 2-9=-265/142, 8-9=-215/710, 4-8=-265/145
WEBS 3-8=-170/821, 3-9=-223/821, 1-9=-308/1063, 5-8=-307/1063

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 12-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 11 and 72 lb uplift at joint 6.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

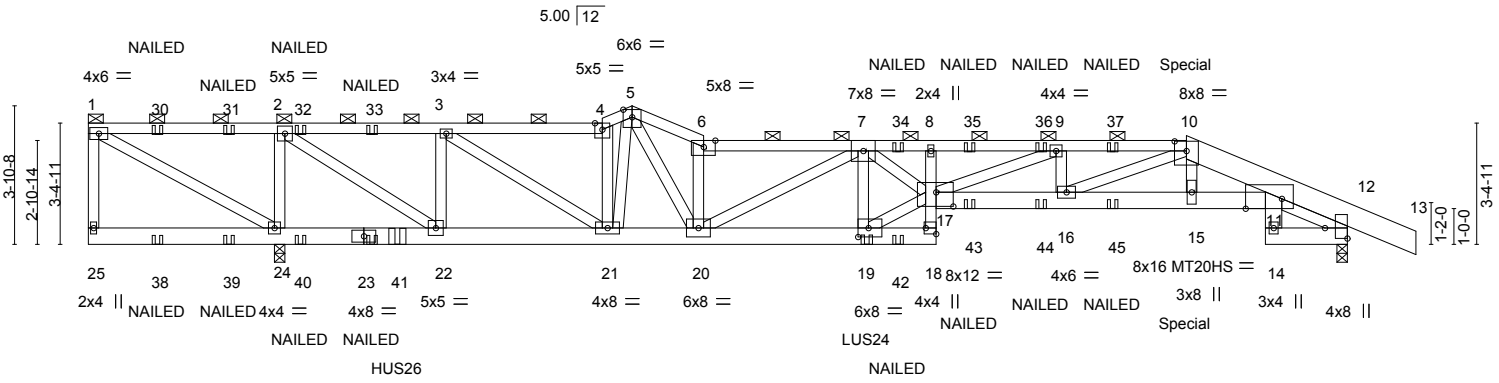
Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B1	Roof Special Girder	1	2	Job Reference (optional)

I45732321

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 14 09:07:10 2021 Page 1
ID:WV5xOZ45cNK4PQ2HmSu_xyyPFt9-_BSBsZxIuX0Ur?Q?0jgirBK2_t9iR?Bi6qU2_ZzP4fu

5-4-3	9-10-5	14-4-7	15-2-7	17-2-7	21-8-0	23-8-7	27-2-7	30-8-7	32-10-15	35-2-7	37-1-7
5-4-3	4-6-2	4-6-2	0-10-0	2-0-0	4-5-9	2-0-7	3-6-0	3-6-0	2-2-8	2-3-8	1-11-0

Scale: 3/16"=1'



5-2-7	5-4-3	9-10-5	14-4-7	17-2-7	21-8-0	23-8-7	27-2-7	30-8-7	32-10-15	35-2-7
5-2-7	0-1-12	4-6-2	4-6-2	2-10-0	4-5-9	2-0-7	3-6-0	3-6-0	2-2-8	2-3-8

Plate Offsets (X,Y)-- [6:0-3-14,Edge], [10:0-4-0,0-3-4], [11:1-0-2,Edge], [12:Edge,0-7-8], [17:0-5-12,0-4-12], [18:Edge,0-3-8], [19:0-3-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.37	18	>964	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.67	18	>533	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.14	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 381 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 10-13: 2x8 SP 2400F 2.0E
BOT CHORD	2x6 SPF No.2 *Except* 8-18: 2x4 SPF No.2, 11-17: 2x6 SPF 2100F 1.8E
WEBS	2x4 SPF No.2
SLIDER	Right 2x4 SPF No.2 -t 2-0-1

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-11-13 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-8 max.): 1-4, 6-10.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 22-24.

REACTIONS. (size) 12=0-3-8, 24=0-3-8
Max Horz 24=-123(LC 6)
Max Uplift 12=-542(LC 9), 24=-745(LC 4)
Max Grav 12=2206(LC 1), 24=3417(LC 1)

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

TOP CHORD	1-2=-172/381, 2-3=-2693/498, 3-4=-4131/787, 4-5=-4450/850, 5-6=-5990/1197, 6-7=-5606/1104, 7-8=-9716/2109, 8-9=-9904/2155, 9-10=-8147/1893, 10-11=-5691/1407, 11-12=-1675/432
BOT CHORD	22-24=-381/243, 21-22=-381/2693, 20-21=-622/3825, 19-20=-1319/6623, 18-19=-205/980, 16-17=-1798/8147, 15-16=-1310/5615, 11-15=-1305/5586, 11-14=-95/448
WEBS	1-24=-473/188, 2-24=-2670/628, 2-22=-640/3692, 3-22=-1348/295, 3-21=-343/1709, 4-21=-1958/351, 5-21=-177/1088, 5-20=-754/3486, 6-20=-2518/539, 7-20=-1268/358, 7-19=-2463/548, 17-19=-1261/6384, 7-17=-893/3978, 9-17=-284/1906, 9-16=-1076/244, 10-16=-532/2763

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 542 lb uplift at joint 12 and 745 lb uplift at joint 24.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B1	Roof Special Girder	1	2	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:38:10 2021 Page 2
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NOTES-

10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 8-7-11 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 21-9-3 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
13) Fill all nail holes where hanger is in contact with lumber.
14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 238 lb down and 157 lb up at 30-8-7 on top chord, and 93 lb down and 83 lb up at 30-7-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-70, 4-5=-70, 5-6=-70, 6-10=-70, 10-11=-70, 11-13=-70, 18-25=-20, 11-17=-20, 14-26=-20
   Concentrated Loads (lb)
   Vert: 10=-117(F) 23=-40(F) 19=-558(F) 15=-93(F) 30=-83(F) 31=-83(F) 32=-83(F) 33=-83(F) 34=-63(F) 35=-37(F) 36=-37(F) 37=-37(F) 38=-40(F) 39=-40(F) 40=-40(F) 41=-770(F) 42=-36(F) 43=-31(F) 44=-31(F) 45=-31(F)

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B2	Roof Special	1	1	Job Reference (optional)

I45732322

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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL ONLY

04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:02:55 2021 Page 1
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0-3-0	7-1-12	14-0-8	15-2-8	19-3-8	23-4-8	23-8-0	29-0-0	32-11-0	35-2-8	37-1-8
0-3-0	6-10-12	6-10-12	1-2-0	4-1-0	4-1-0	0-3-8	5-4-0	3-11-0	2-3-8	1-11-0

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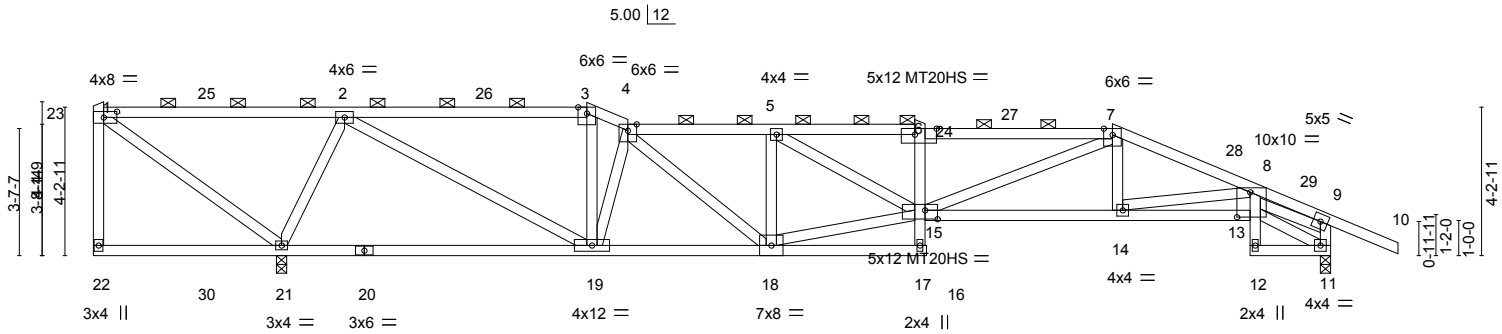


5-4-4	14-0-8	15-2-8	19-3-8	23-8-0	23-8-8	29-0-0	32-11-0	35-2-8
5-4-4	8-8-4	1-2-0	4-1-0	4-4-8	0-0-8	5-3-8	3-11-0	2-3-8

Plate Offsets (X,Y)-- [1:0-4-8,0-2-0], [6:Edge,0-2-1], [8:0-4-8,0-8-8], [15:0-4-4,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.26	15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.48	15	>750	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.19	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 160 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, and 2-0-0 oc purlins (2-2-15 max.): 1-3, 4-6, 6-7, 1-23.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 21=0-3-8, 11=0-3-8
Max Horz 21=-176(LC 10)
Max Uplift 21=-330(LC 8), 11=-258(LC 13)
Max Grav 21=1842(LC 1), 11=1446(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-277/287, 2-3=-1924/355, 3-4=-2068/367, 4-5=-2693/484, 5-6=-3662/627, 6-7=-3740/639, 7-8=-2871/473, 8-9=-2776/442, 9-11=-1312/241
BOT CHORD 19-21=-26/394, 18-19=-319/2281, 14-15=-359/2629, 13-14=-441/2866, 11-12=-42/260
WEBS 1-21=-412/341, 2-21=-1574/352, 2-19=-261/1782, 3-19=-82/455, 4-19=-1223/269, 7-15=-241/1217, 7-14=0/279, 6-15=-361/123, 9-13=-374/2439, 5-18=-849/197, 15-18=-385/2613, 5-15=-176/1078, 4-18=-132/547

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 14-0-8, Exterior(2E) 14-0-8 to 15-2-8 , Interior(1) 15-2-8 to 29-0-0, Exterior(2R) 29-0-0 to 32-0-0, Interior(1) 32-0-0 to 37-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 330 lb uplift at joint 21 and 258 lb uplift at joint 11.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

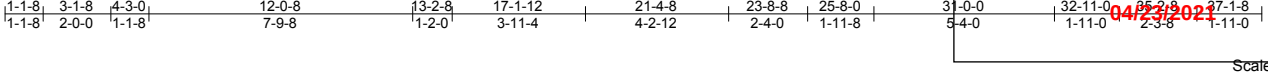
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B3	Roof Special	1	1	Job Reference (optional)

I45732323

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:27:33 2021 Page 1
ID:WV5xOZ45cNK4PQ2HmSu_xyyPFt9-9IcL9K4CJvPwfim69XMHnWHwiJtyW0nJe1f7tRzP4fj

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021



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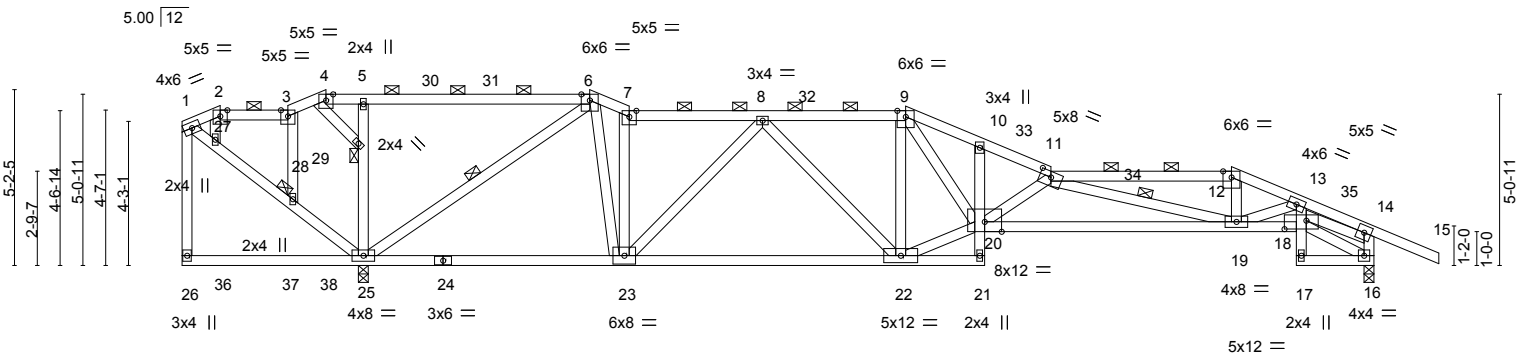

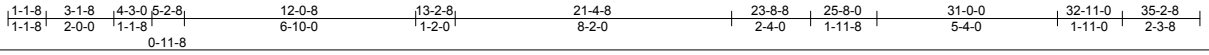

Plate Offsets (X,Y)-- [11:0-4-0,0-2-0], [18:0-7-12,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.37	20	>974	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.67	19-20	>534	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.25	16	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 173 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
18-20: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-7-0 max.): 2-3, 4-6, 7-9, 11-12.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-25, 11-19
JOINTS 1 Brace at Jt(s): 28, 29

REACTIONS. (size) 16=0-3-8, 25=0-3-8
Max Horz 25=-168(LC 8)
Max Uplift 16=-264(LC 13), 25=-287(LC 8)
Max Grav 16=1467(LC 26), 25=1842(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 6-7=-1745/314, 7-8=-1680/294, 8-9=-2234/418, 9-10=-3824/665, 10-11=-4031/659, 11-12=-2974/494, 12-13=-3244/513, 13-14=-2799/454, 14-16=-1336/253
BOT CHORD 23-25=-150/1381, 22-23=-278/2137, 19-20=-837/5308, 18-19=-421/2758, 16-17=-33/265
WEBS 6-25=-1795/270, 7-23=-655/158, 8-23=-693/182, 9-22=-861/165, 20-22=-237/2260, 9-20=-385/2382, 11-20=-2063/417, 11-19=-2425/434, 12-19=-61/765, 13-19=-54/310, 6-23=-222/1326, 14-18=-376/2443, 25-29=-490/181, 5-29=-490/170, 1-27=-225/272, 27-28=-259/276, 25-28=-255/277

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-8, Interior(1) 3-1-8 to 4-3-0, Exterior(2R) 4-3-0 to 7-3-0, Interior(1) 7-3-0 to 12-0-8, Exterior(2E) 12-0-8 to 13-2-8, Interior(1) 13-2-8 to 21-4-8, Exterior(2R) 21-4-8 to 24-4-8, Interior(1) 24-4-8 to 31-0-0, Exterior(2R) 31-0-0 to 34-0-0, Interior(1) 34-0-0 to 37-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 264 lb uplift at joint 16 and 287 lb uplift at joint 25.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B4	Roof Special Girder	1	1	Job Reference (optional)

I45732324

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL

04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 14:03:51 2021 Page 1
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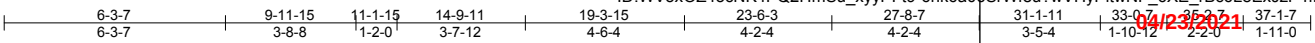

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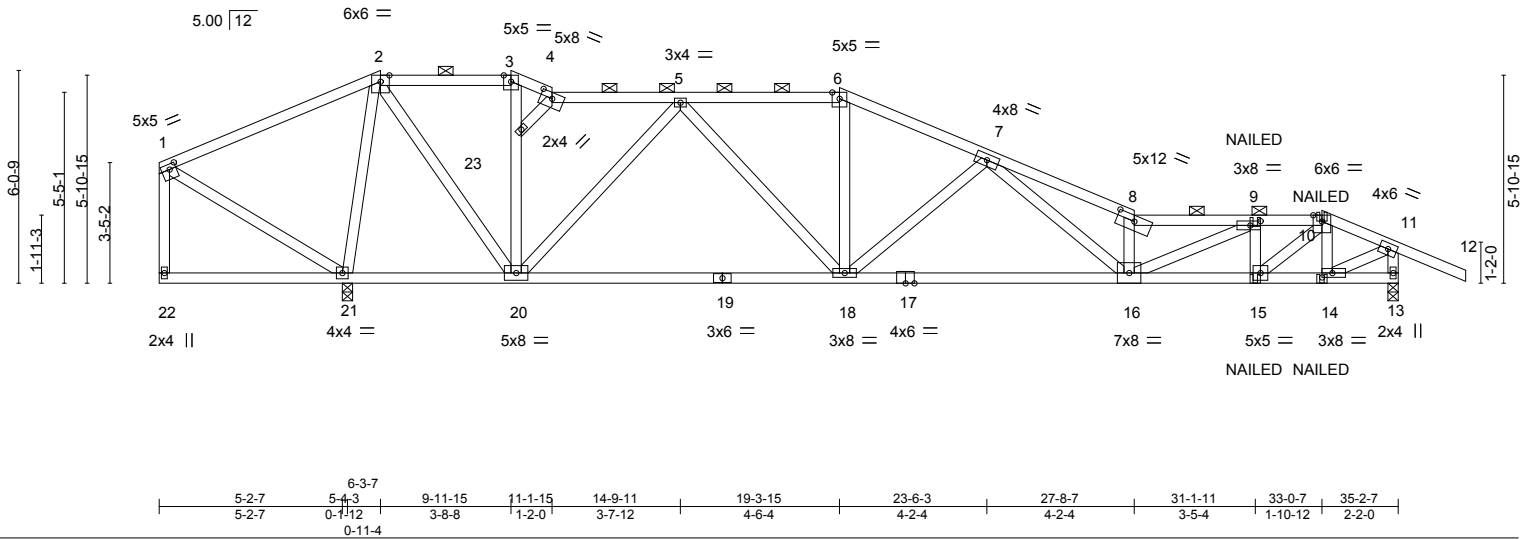

Plate Offsets (X,Y)-- [1:0-2-4,0-1-12], [4:0-4-0,0-2-0], [8:0-6-0,0-2-0], [9:0-3-8,0-1-8], [14:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.26	16-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.52	16-18	>686	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.08	13	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 163 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-3-4 oc purlins, except end verticals, and 2-0-0 oc purlins (2-5-10 max.): 2-3, 4-6, 8-10.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 21=0-3-8, 13=0-3-8
Max Horz 21=-131(LC 4)
Max Uplift 21=-221(LC 4), 13=-284(LC 9)
Max Grav 21=1839(LC 1), 13=1458(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-70/331, 2-3=-907/207, 3-4=-782/162, 4-5=-956/201, 5-6=-1886/390, 6-7=-2108/402, 7-8=-4497/826, 8-9=-4265/753, 9-10=-2671/516, 10-11=-1442/271, 11-13=-1425/287
BOT CHORD 18-20=-189/1616, 16-18=-416/2616, 15-16=-473/2667, 14-15=-226/1360
WEBS 2-21=-1599/221, 2-20=-210/1378, 20-23=-268/83, 6-18=-61/529, 8-16=-1925/395, 10-14=-647/135, 1-21=-321/86, 11-14=-253/1479, 9-15=-1114/222, 10-15=-331/1756, 9-16=-285/1757, 7-16=-345/1962, 7-18=-950/258, 5-20=-1008/236, 5-18=-44/430, 4-23=-251/68

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 221 lb uplift at joint 21 and 284 lb uplift at joint 13.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-6=-70, 6-8=-70, 8-10=-70, 10-11=-70, 11-12=-70, 13-22=-20

April 20,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B4	Roof Special Girder	1	1	Job Reference (optional)

I45732324

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:39:14 2021 Page 2
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LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 14=15(B) 15=-4(B)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B5	Roof Special	1	1	Job Reference (optional)

I45732325

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:13 2021 Page 1
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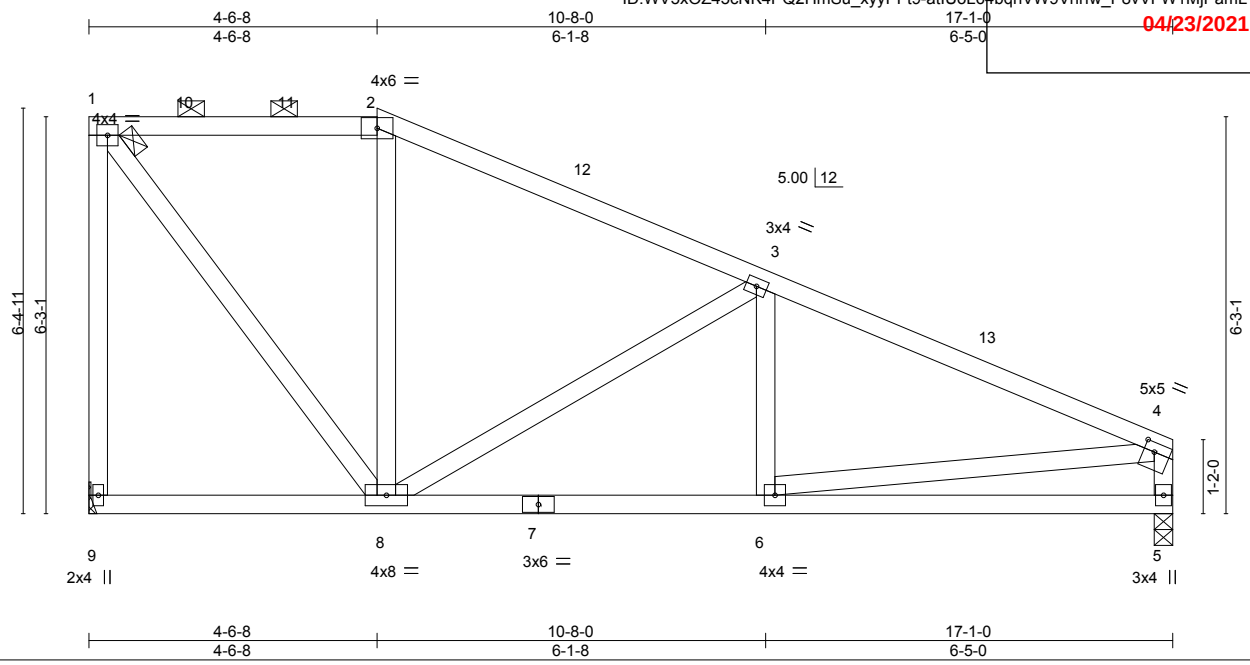

Plate Offsets (X,Y)-- [4:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.03	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.07	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.01	5	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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 9=Mechanical, 5=0-3-8
Max Horz 9=-229(LC 8)
Max Uplift 9=-121(LC 8), 5=-108(LC 13)
Max Grav 9=756(LC 1), 5=756(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-716/240, 1-2=-451/197, 2-3=-568/180, 3-4=-1083/226, 4-5=-692/177
BOT CHORD 8-9=-158/283, 6-8=-164/928
WEBS 1-8=-244/724, 3-8=-562/198, 4-6=-98/715

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-6-8, Exterior(2R) 4-6-8 to 7-6-8, Interior(1) 7-6-8 to 16-11-4 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 9 and 108 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732326
2742340	B6	ROOF SPECIAL	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:03:15 2021 Page 1
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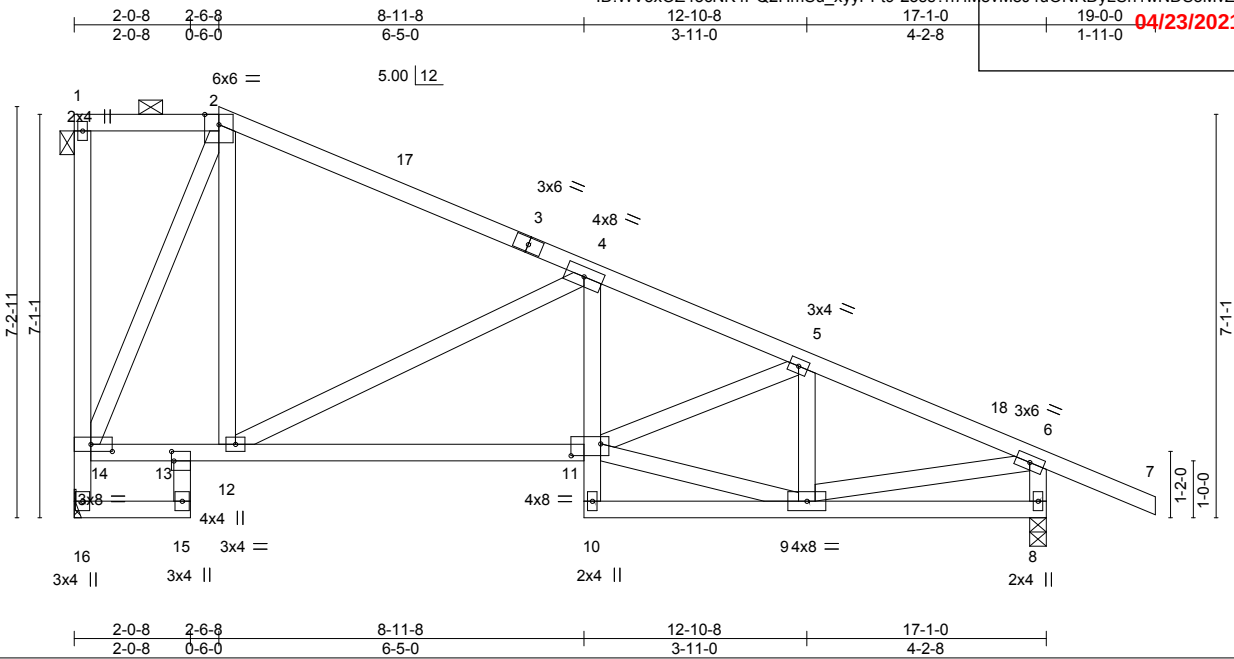

Plate Offsets (X,Y)-- [11:0-6-4,0-2-8], [13:0-2-0,0-0-8], [14:0-4-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.05	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.11	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 95 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, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 16=Mechanical, 8=0-3-8
Max Horz 16=-278(LC 8)
Max Uplift 16=-124(LC 13), 8=-150(LC 13)
Max Grav 16=747(LC 1), 8=909(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 14-16=-729/167, 2-4=-425/124, 4-5=-1142/215, 5-6=-1023/182, 6-8=-859/266
BOT CHORD 15-16=-187/260, 13-14=0/302, 12-13=-70/365, 11-12=-80/1067, 4-11=0/330
WEBS 2-12=-65/486, 2-14=-772/154, 4-12=-849/234, 5-9=-348/84, 9-11=-46/821, 6-9=-144/861

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-6-8, Exterior(2R) 2-6-8 to 5-6-8, Interior(1) 5-6-8 to 19-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 16 and 150 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732327
2742340	B7	Roof Special	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:38:17 2021 Page 1
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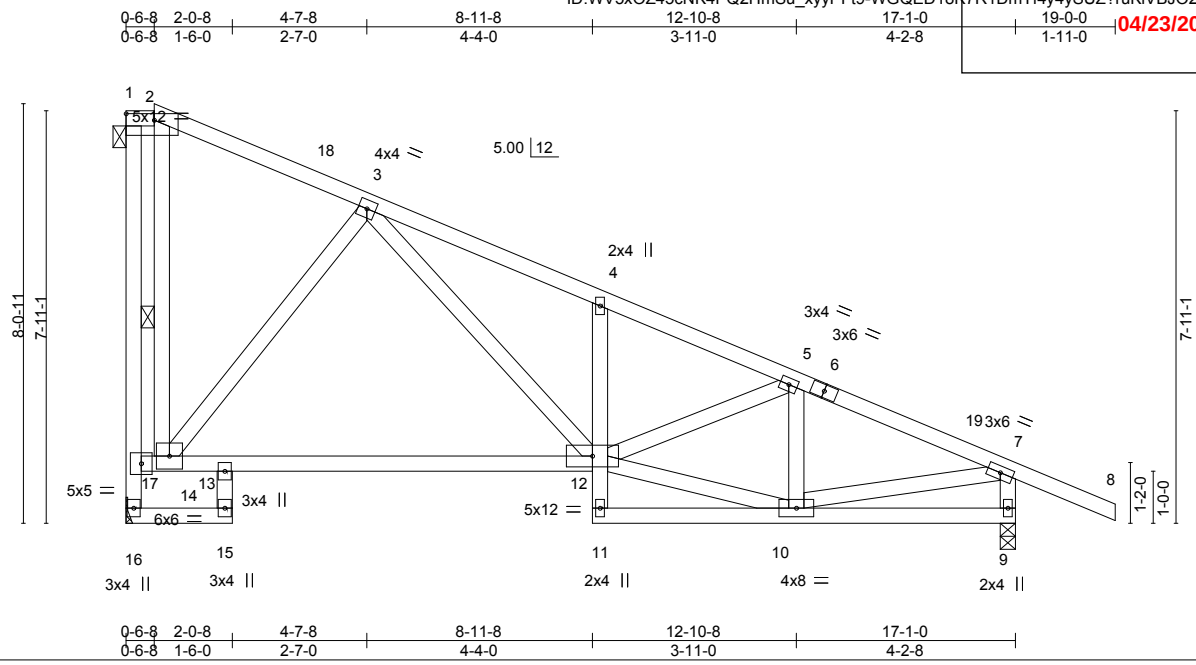

Plate Offsets (X,Y)-- [1:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.12	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.27	12-13	>755	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 97 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, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 1-16

REACTIONS. (size) 16=Mechanical, 9=0-3-8
Max Horz 16=-310(LC 8)
Max Uplift 16=-160(LC 13), 9=-146(LC 13)
Max Grav 16=747(LC 1), 9=909(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 16-17=-709/178, 1-17=-694/144, 3-4=-1160/268, 4-5=-1135/200, 5-7=-1030/179, 7-9=-859/263
BOT CHORD 14-17=-66/251, 13-14=0/520, 12-13=-6/530, 4-12=-281/131
WEBS 10-12=-50/903, 5-10=-365/84, 7-10=-146/880, 3-12=-154/795, 2-14=-136/689, 3-14=-714/207

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 0-6-8, Exterior(2R) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 19-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 160 lb uplift at joint 16 and 146 lb uplift at joint 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732328
2742340	B8	Roof Special	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:13:13 2021 Page 1
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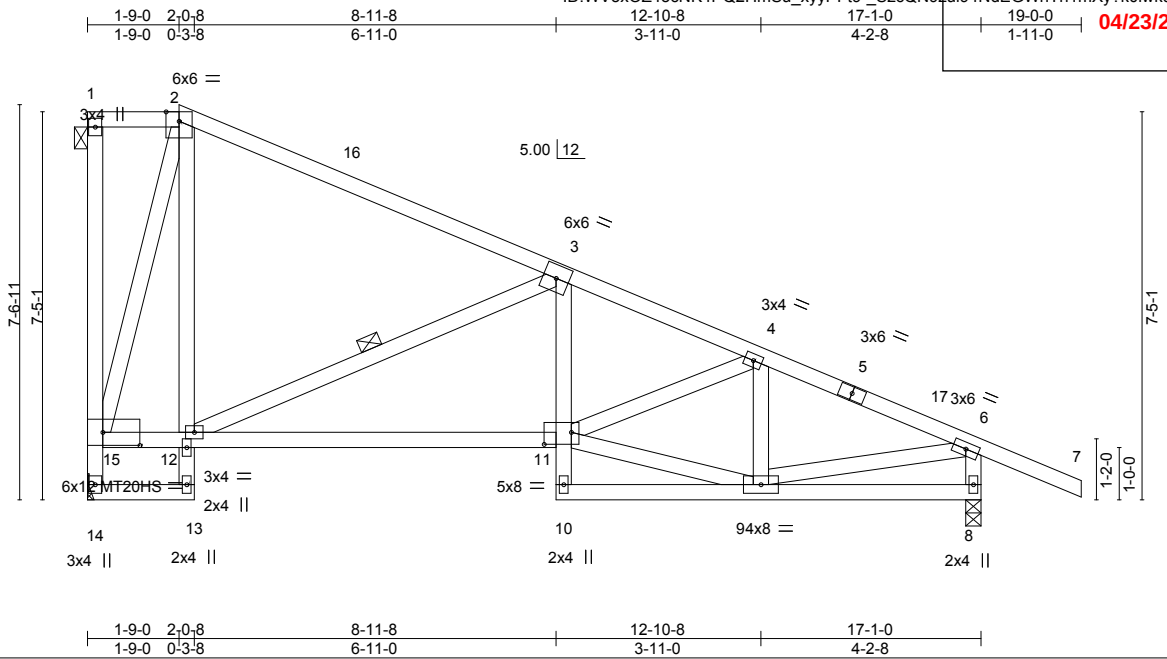

1-9-0 2-0-8 8-11-8 12-10-8 17-1-0
1-9-0 0-3-8 6-11-0 3-11-0 4-2-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.15	13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.19	13	>999	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 96 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, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-12

REACTIONS. (size) 14=Mechanical, 8=0-3-8
Max Horz 14=-291(LC 8)
Max Uplift 14=-123(LC 13), 8=-148(LC 13)
Max Grav 14=783(LC 1), 8=911(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 14-15=-745/259, 2-3=-377/105, 3-4=-1151/209, 4-6=-1024/176, 6-8=-861/264
BOT CHORD 12-15=-114/355, 11-12=-81/1093, 3-11=0/342
WEBS 3-12=-941/264, 9-11=-33/819, 4-9=-345/78, 6-9=-137/858, 2-15=-863/154, 2-12=-60/554

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 1-9-0, Exterior(2R) 1-9-0 to 4-9-0, Interior(1) 4-9-0 to 19-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 14 and 148 lb uplift at joint 8.
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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B9	Roof Special	1	1	Job Reference (optional)

I45732329

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:03:51 2021 Page 1
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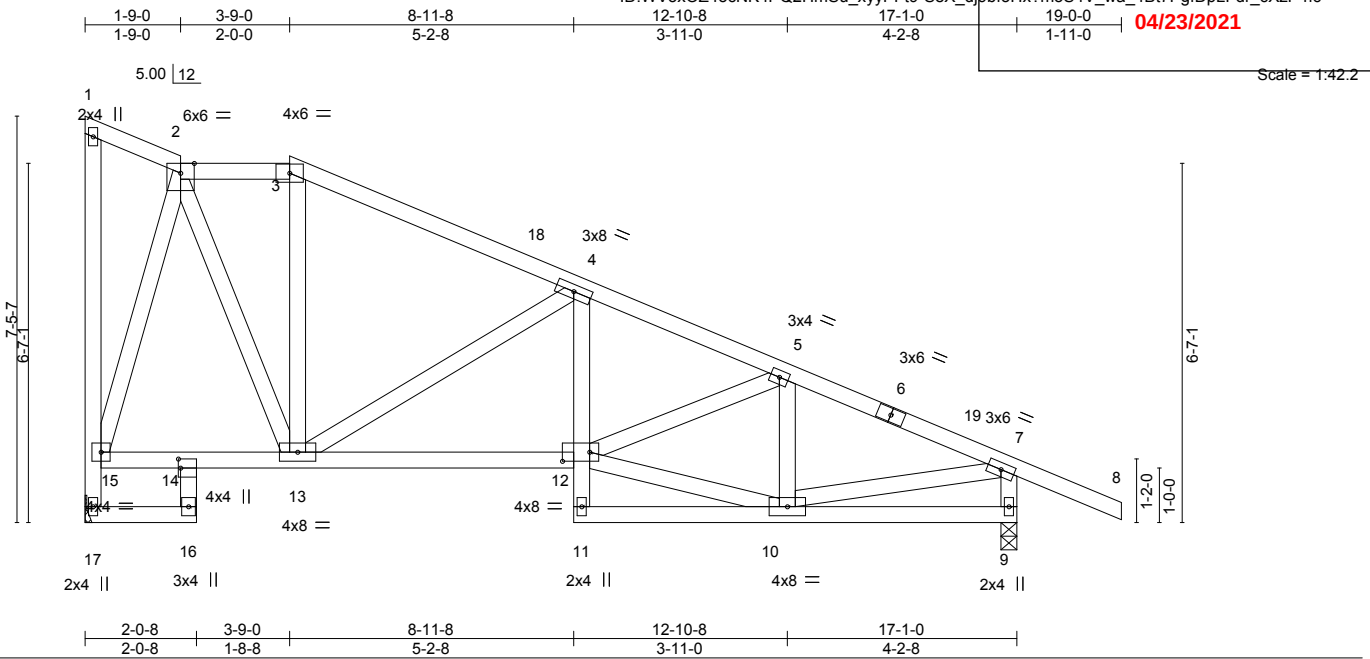

Plate Offsets (X,Y)-- [12:0-6-0,0-2-0], [14:0-2-0,0-0-8]

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	0.41	Vert(LL)	-0.03	12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.07	12-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 99 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, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 17=Mechanical, 9=0-3-8
Max Horz 17=-290(LC 8)
Max Uplift 17=-162(LC 13), 9=-151(LC 13)
Max Grav 17=747(LC 1), 9=909(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 15-17=-725/148, 2-3=-433/136, 3-4=-539/125, 4-5=-1130/162, 5-7=-1026/152, 7-9=-859/219
BOT CHORD 16-17=-192/269, 13-14=-109/301, 12-13=-45/1033, 4-12=-4/301
WEBS 4-13=-706/182, 10-12=-61/822, 5-10=-349/76, 7-10=-98/869, 2-15=-687/135, 2-13=-122/625

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 1-9-0, Interior(1) 1-9-0 to 3-9-0, Exterior(2R) 3-9-0 to 7-11-15, Interior(1) 7-11-15 to 19-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 162 lb uplift at joint 17 and 151 lb uplift at joint 9.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732330
2742340	B10	Roof Special	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL ONLY
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:38:02 2021 Page 1
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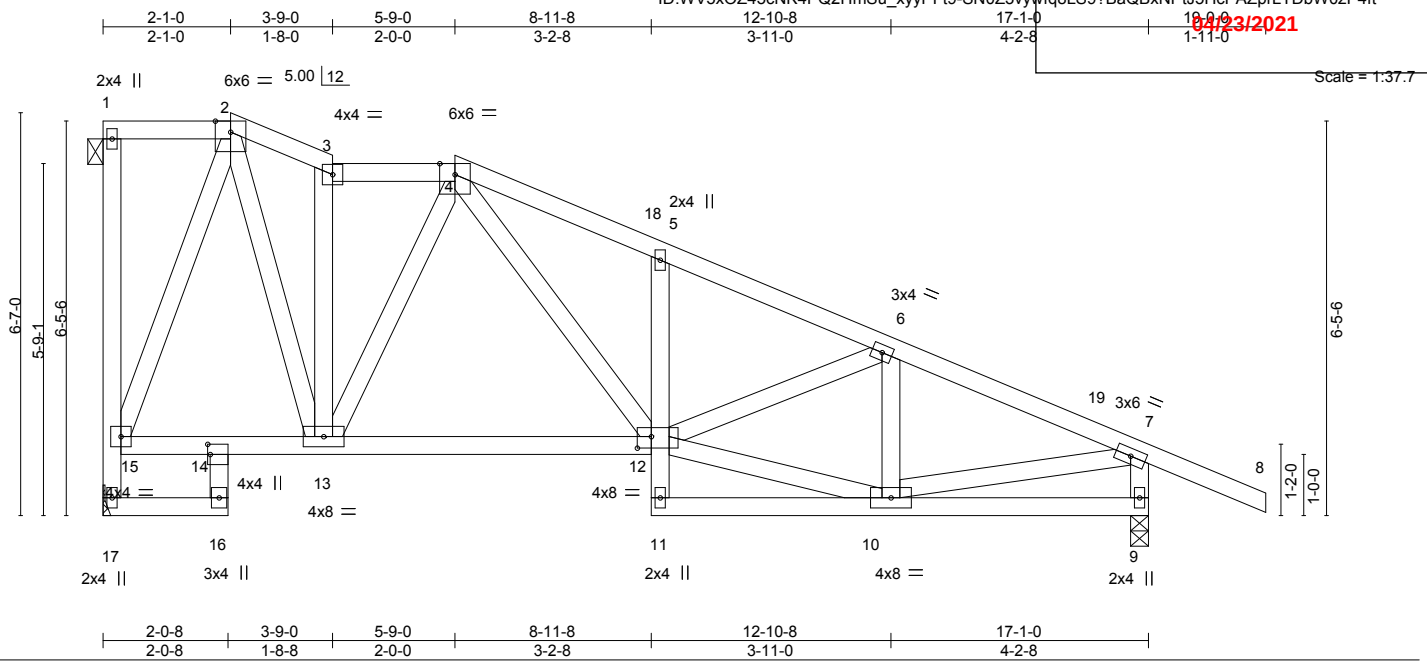

Plate Offsets (X,Y)-- [12:0-2-12,0-2-4], [14:0-2-0,0-0-8]

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	0.29	Vert(LL)	-0.03	12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.08	12-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.03	9	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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2, 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 17=Mechanical, 9=0-3-8
Max Horz 17=-253(LC 8)
Max Uplift 17=-126(LC 13), 9=-156(LC 13)
Max Grav 17=747(LC 1), 9=909(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 15-17=-726/175, 2-3=-501/182, 3-4=-462/156, 4-5=-1112/279, 5-6=-1116/226, 6-7=-1031/195, 7-9=-859/272
BOT CHORD 13-14=-64/312, 12-13=0/615
WEBS 3-13=-271/112, 4-13=-356/197, 4-12=-178/630, 10-12=-75/845, 6-10=-351/95, 7-10=-162/881, 2-15=-705/141, 2-13=-173/726

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-9-0, Interior(1) 3-9-0 to 5-9-0, Exterior(2R) 5-9-0 to 8-9-0, Interior(1) 8-9-0 to 19-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 126 lb uplift at joint 17 and 156 lb uplift at joint 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732331
2742340	B11	Roof Special	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LINN COUNTY, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:03:30 2021 Page 1
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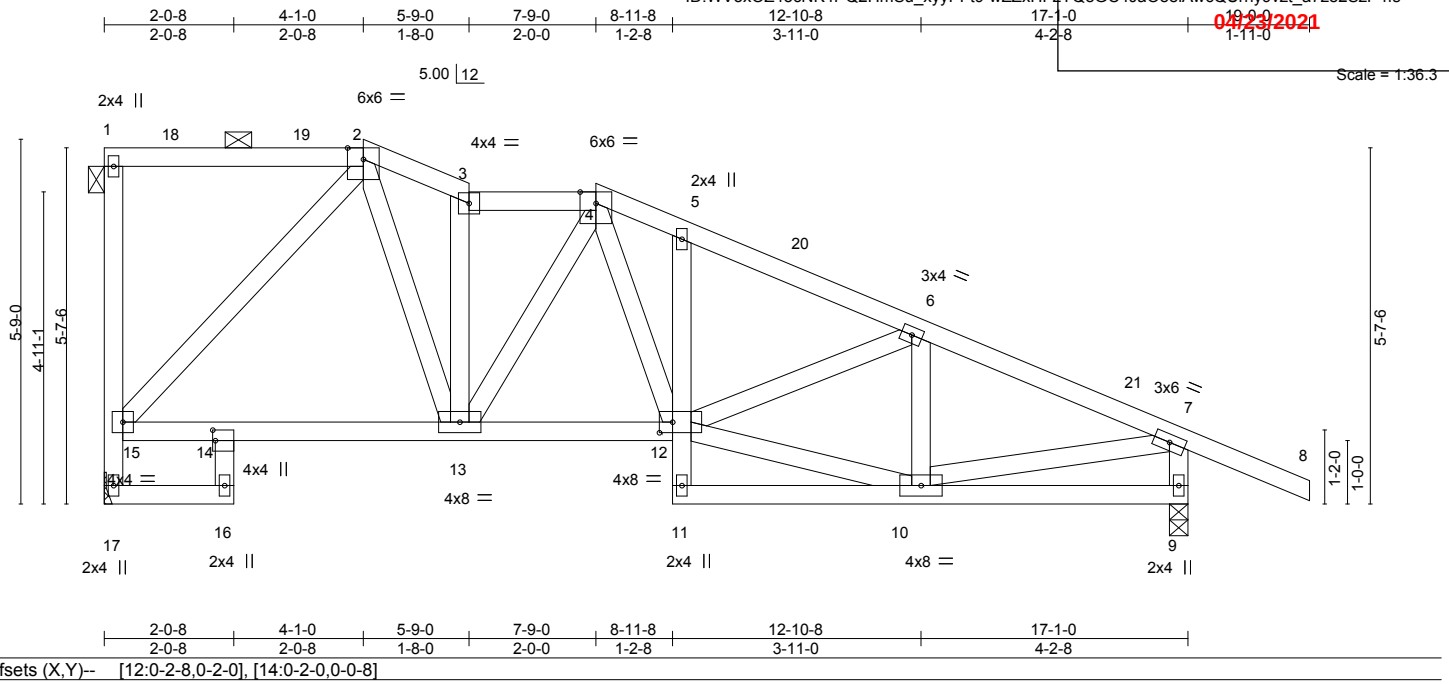

Plate Offsets (X,Y)-- [12:0-2-8,0-2-0], [14:0-2-0,0-0-8]

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	0.29	Vert(LL)	-0.04	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07	13-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 96 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, and 2-0-0 oc purlins (6-0-0 max.): 1-2, 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 17=Mechanical, 9=0-3-8
Max Horz 17=-220(LC 10)
Max Uplift 17=-104(LC 8), 9=-156(LC 13)
Max Grav 17=747(LC 1), 9=909(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 15-17=-720/179, 2-3=-799/231, 3-4=-752/208, 4-5=-1054/273, 5-6=-1106/245, 6-7=-1032/207, 7-9=-859/279
BOT CHORD 14-15=-27/526, 13-14=0/524, 12-13=-54/835
WEBS 3-13=-367/122, 4-12=-157/393, 10-12=-98/826, 6-10=-347/103, 7-10=-173/884, 2-13=-127/652, 2-15=-751/183

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-1-0, Exterior(2E) 4-1-0 to 5-9-0, Interior(1) 5-9-0 to 7-9-0, Exterior(2R) 7-9-0 to 10-9-0, Interior(1) 10-9-0 to 19-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 17 and 156 lb uplift at joint 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732332
2742340	B12	Roof Special	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 07:44:25 2021 Page 1
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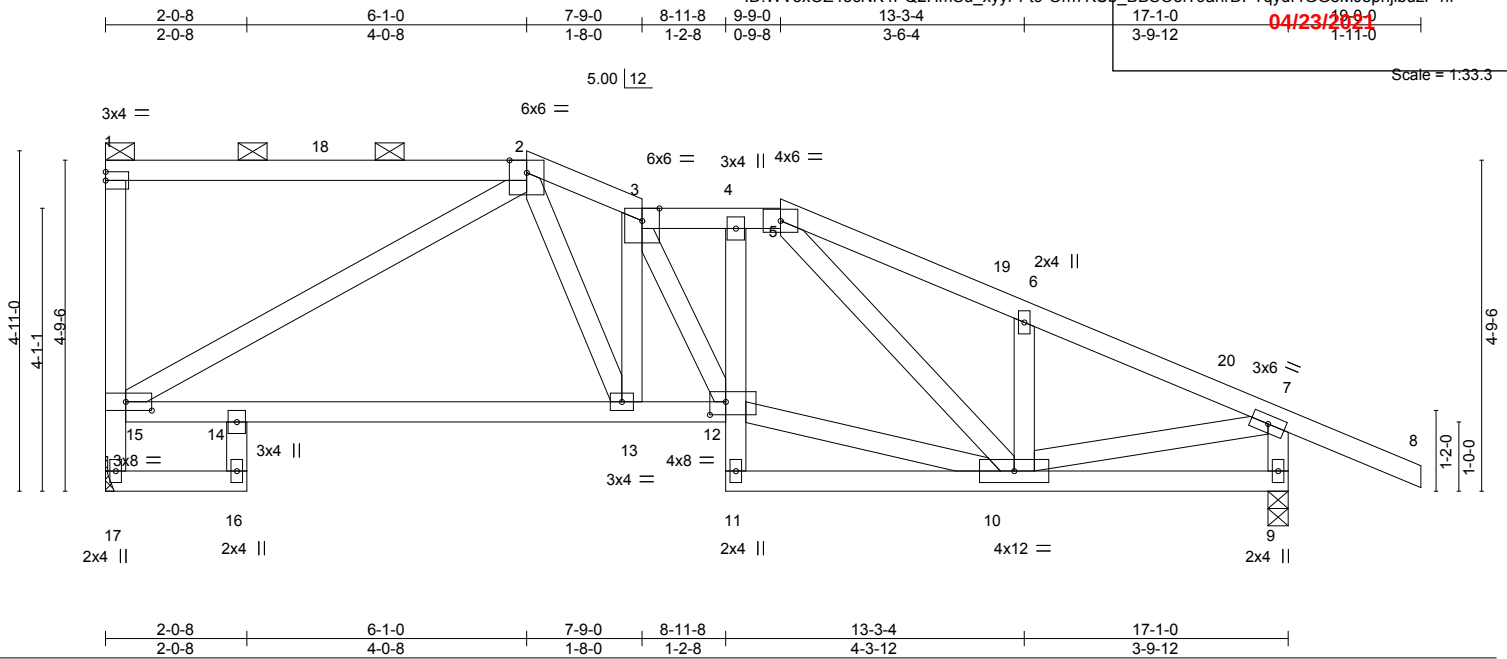

Plate Offsets (X,Y)-- [12:0-2-12,0-2-4], [15:0-4-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.07	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.14	13-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.06	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 89 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, and 2-0-0 oc purlins (5-5-15 max.): 1-2, 3-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 17=Mechanical, 9=0-3-8
Max Horz 17=-187(LC 10)
Max Uplift 17=-112(LC 8), 9=-151(LC 13)
Max Grav 17=747(LC 1), 9=909(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 15-17=-714/173, 2-3=-1143/273, 3-4=-1042/274, 4-5=-964/261, 5-6=-960/248, 6-7=-1020/213, 7-9=-864/284
BOT CHORD 14-15=-82/873, 13-14=-78/840, 12-13=-111/1089, 4-12=-8/294
WEBS 3-13=-365/183, 10-12=-119/868, 7-10=-185/892, 2-15=-900/236, 2-13=-69/585

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-1-0, Exterior(2E) 6-1-0 to 7-9-0, Interior(1) 7-9-0 to 9-9-0, Exterior(2R) 9-9-0 to 12-9-0, Interior(1) 12-9-0 to 19-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 17 and 151 lb uplift at joint 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B13	Roof Special	1	1	Job Reference (optional)

I45732333

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURE ONLY
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 01 07:33:30 2021 Page 1
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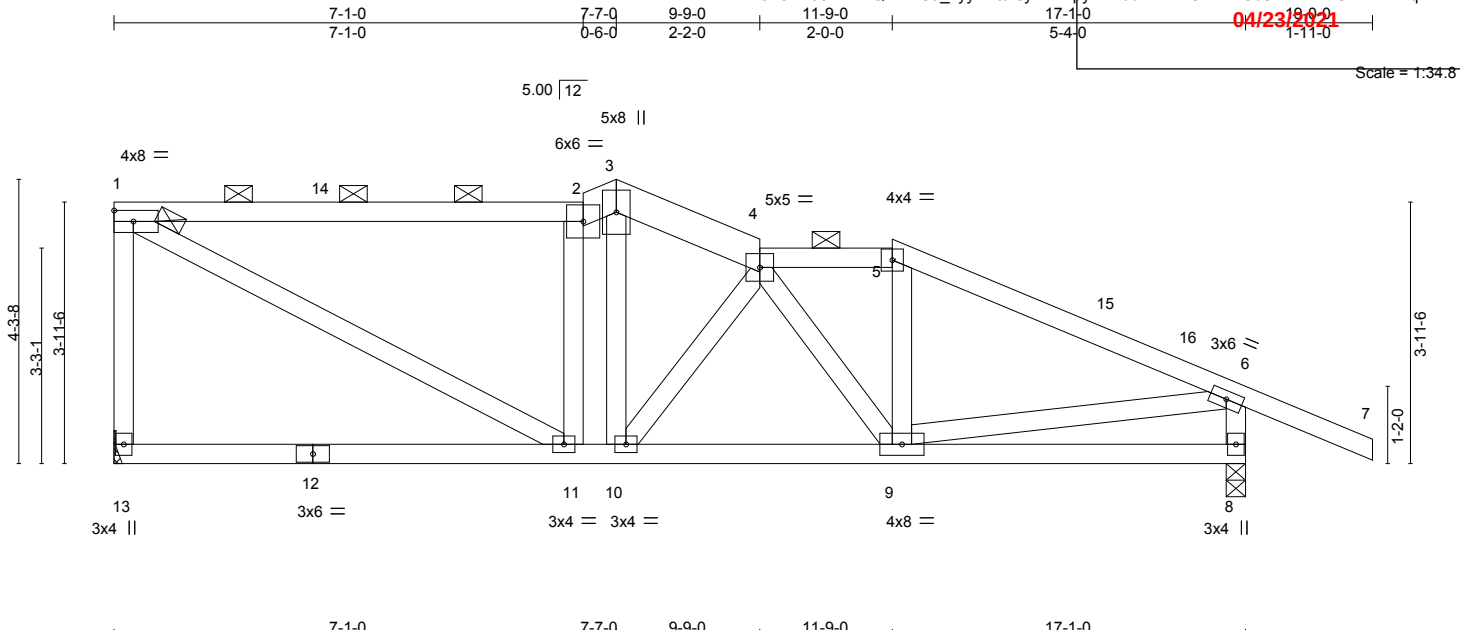

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.06	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.12	11-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 82 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 2-3,3-4: 2x6 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, and 2-0-0 oc purlins (4-7-10 max.): 1-2, 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 13=Mechanical, 8=0-3-8
Max Horz 13=-155(LC 10)
Max Uplift 13=-114(LC 8), 8=-145(LC 13)
Max Grav 13=747(LC 1), 8=909(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-13=-673/208, 1-2=-874/230, 2-3=-865/258, 3-4=-927/239, 4-5=-891/224, 5-6=-1040/217, 6-8=-852/286
BOT CHORD 10-11=-101/890, 9-10=-142/1002
WEBS 6-9=-143/791, 4-10=-293/92, 2-11=-397/227, 1-11=-242/916

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-7-0, Exterior(2E) 7-7-0 to 9-9-0, Interior(1) 9-9-0 to 11-9-0, Exterior(2R) 11-9-0 to 14-9-0, Interior(1) 14-9-0 to 19-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 13 and 145 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732334
2742340	B14	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:38:00 2021 Page 1
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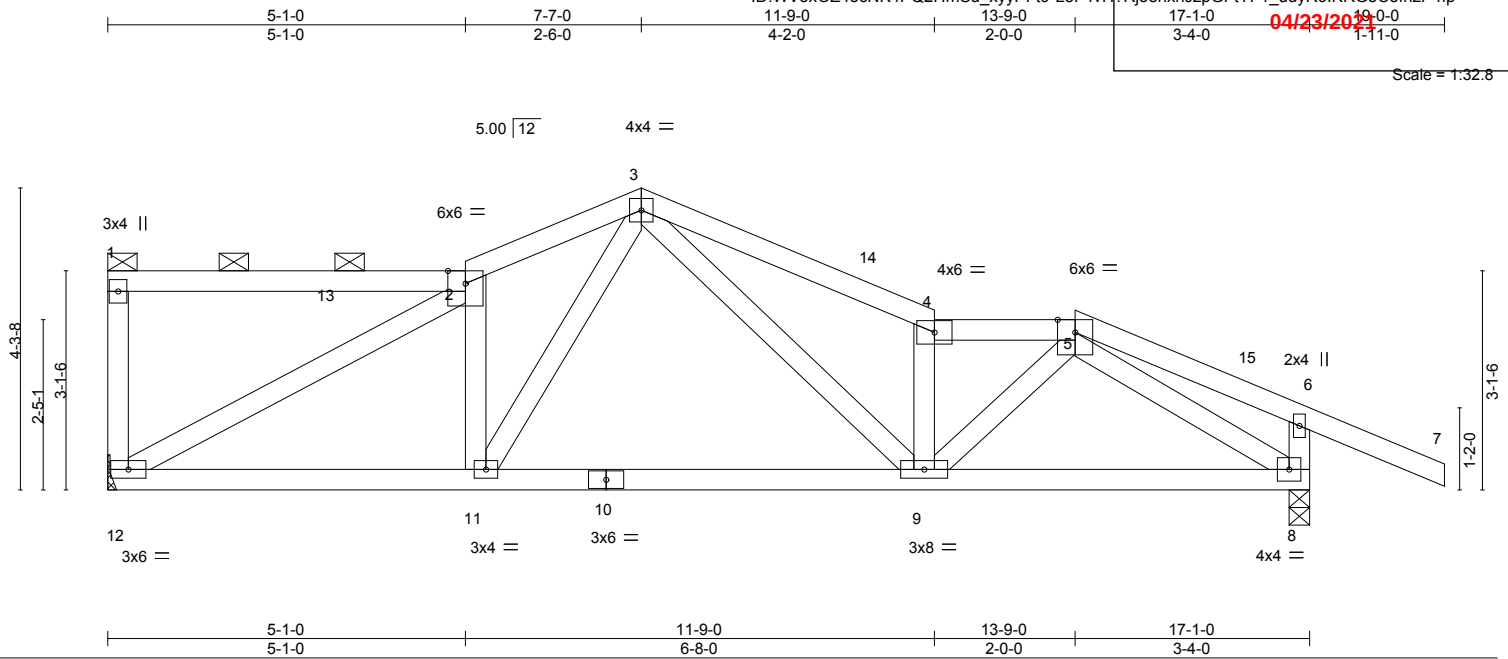

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.04	9-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.10	9-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 76 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, and 2-0-0 oc purlins (5-2-12 max.): 1-2, 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 12=Mechanical, 8=0-3-8
Max Horz 12=-119(LC 10)
Max Uplift 12=-99(LC 12), 8=-145(LC 13)
Max Grav 12=747(LC 1), 8=909(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1058/292, 3-4=-1373/350, 4-5=-1259/293, 6-8=-301/164
BOT CHORD 11-12=-142/941, 9-11=-101/775, 8-9=-125/832
WEBS 2-12=-1036/255, 3-11=-70/369, 3-9=-164/611, 4-9=-749/231, 5-9=-118/610, 5-8=-984/235

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-7-0, Exterior(2R) 7-7-0 to 10-7-0, Interior(1) 10-7-0 to 13-9-0, Exterior(2R) 13-9-0 to 16-11-4, Interior(1) 16-11-4 to 19-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 12 and 145 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B15	Roof Special Girder	1	1	Job Reference (optional)

I45732335

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 07:10:55 2021 Page 1
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04/23/2021

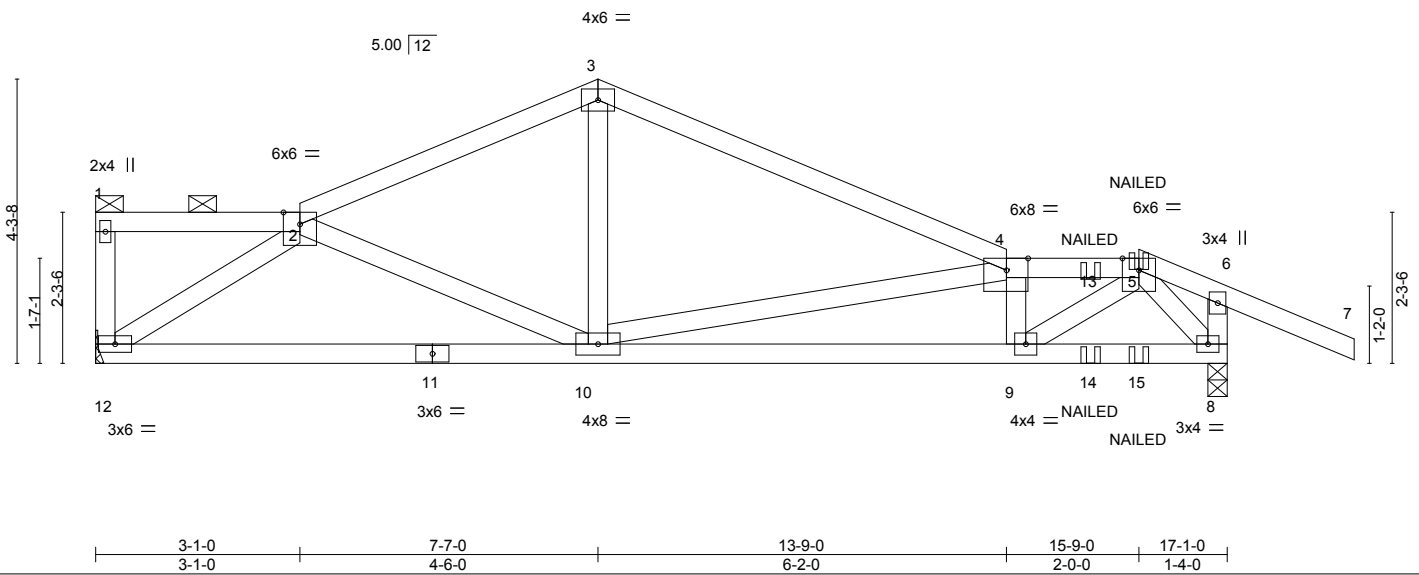

Plate Offsets (X,Y)-- [4:0-3-14,Edge]

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	0.68	Vert(LL)	-0.07	10-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.15	10-12	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.45	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 71 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 4-5-11 oc purlins, except end verticals, and 2-0-0 oc purlins (4-10-13 max.): 1-2, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 12=Mechanical, 8=0-3-8
Max Horz 12=-85(LC 4)
Max Uplift 12=-97(LC 8), 8=-154(LC 9)
Max Grav 12=743(LC 1), 8=865(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-953/129, 3-4=-964/109, 4-5=-1343/200, 6-8=-277/104
BOT CHORD 10-12=-99/868, 9-10=-183/1403, 8-9=-37/457
WEBS 2-12=-1018/168, 3-10=0/374, 4-10=-619/181, 4-9=-575/140, 5-9=-163/1096, 5-8=-742/70

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 97 lb uplift at joint 12 and 154 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 6-7=-70, 8-12=-20
Concentrated Loads (lb)
Vert: 5=49(B) 14=-2(B)

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B16	Common	1	1	Job Reference (optional)

I45732336

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
SUMNER COUNTY, KANSAS
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:39:03 2021 Page 1
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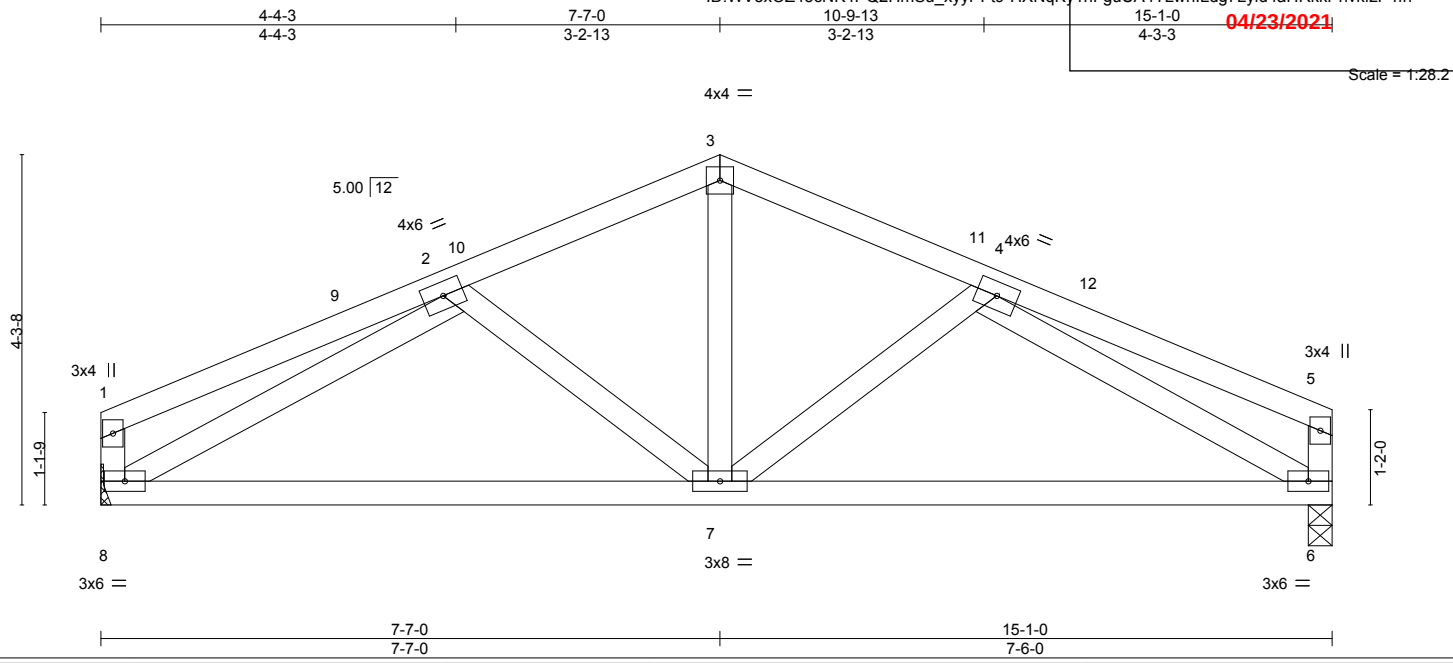

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.06	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.12	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 61 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) 8=Mechanical, 6=0-3-8
Max Horz 8=25(LC 11)
Max Uplift 8=-84(LC 12), 6=-83(LC 13)
Max Grav 8=666(LC 1), 6=666(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-755/231, 3-4=-755/231
BOT CHORD 7-8=-222/769, 6-7=-205/759
WEBS 3-7=-73/331, 2-8=-712/210, 4-6=-720/211

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-7-0, Exterior(2R) 7-7-0 to 10-7-0, Interior(1) 10-7-0 to 14-11-4 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 8 and 83 lb uplift at joint 6.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	B17	Common Girder	1	1	Job Reference (optional)

I45732337

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:39:03 2021 Page 1
ID:WV5xOZ45cNK4PQ2HmSu_xyyPFt9-IjxDXI2J0_0LoE1XUPpaAtfNf5xUJkmty3QTG6zP4fm

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3-10-12	3-7-4	3-7-4	3-10-12

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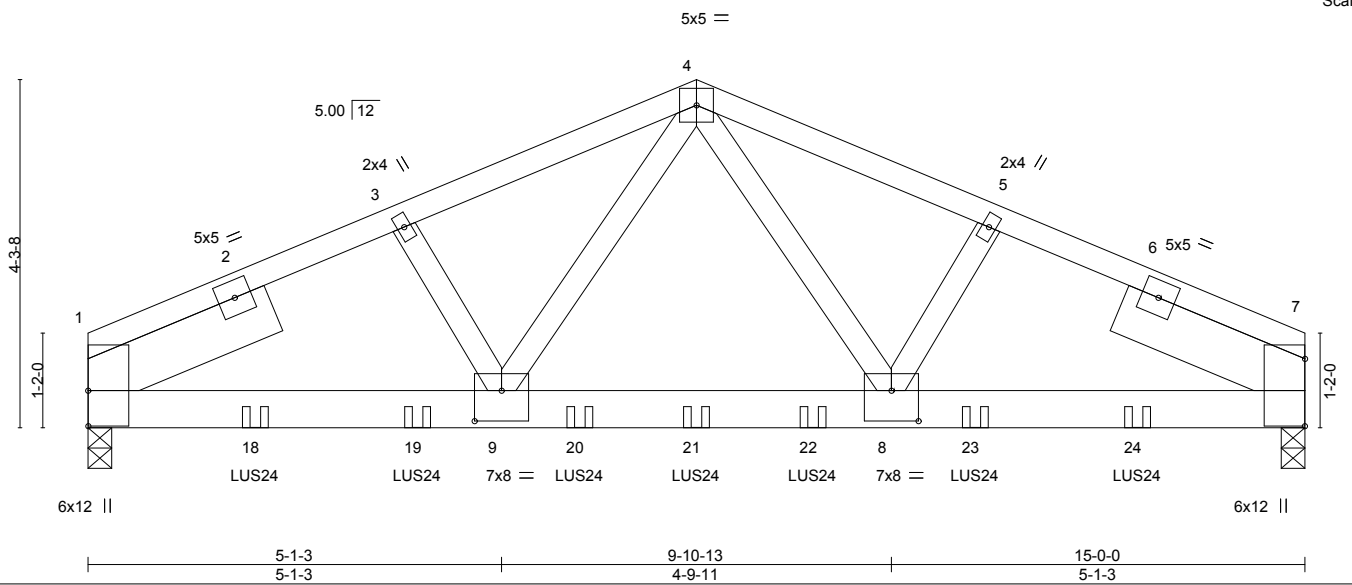

5-1-3	9-10-13	15-0-0
5-1-3	4-9-11	5-1-3

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.11	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.19	8-9	>929	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 76 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF 1650F 1.5E
BOT CHORD 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
SLIDER Left 2x8 SP 2400F 2.0E -t 2-6-0, Right 2x8 SP 2400F 2.0E -t 2-6-0

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

REACTIONS. (size) 1=0-3-8, 7=0-3-8
Max Horz 1=49(LC 12)
Max Uplift 1=-429(LC 8), 7=-429(LC 9)
Max Grav 1=2160(LC 1), 7=2160(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-3166/632, 3-4=-3120/645, 4-5=-3119/645, 5-7=-3166/633
BOT CHORD 1-9=-575/2805, 8-9=-411/2256, 7-8=-525/2805
WEBS 4-8=-271/1210, 5-8=-125/275, 4-9=-271/1210, 3-9=-125/275

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 429 lb uplift at joint 1 and 429 lb uplift at joint 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-10-8 oc max. starting at 2-0-12 from the left end to 12-11-4 to connect truss(es) to back face of bottom chord.
7) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 7-6-0 from the left end to connect truss(es) to back face of bottom chord.
8) Fill all nail holes where hanger is in contact with lumber.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-7=-70, 10-14=-20
Concentrated Loads (lb)
Vert: 18=-404(B) 19=-433(B) 20=-433(B) 21=-433(B) 22=-433(B) 23=-433(B) 24=-404(B)

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732338
2742340	C1	Roof Special Girder	1	2	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 21 11:55:01 2021 Page 1
ID:WV5xOZ45cNK4PQ2HmSu_xyyPFt9-tDD7GlCTy_fVsEX1ldYdBciigLOOsaJnyb4fDrzP4fZ

-1-11-0	3-8-10	7-1-12	11-2-4	13-2-4	17-9-12	22-5-4	27-0-12	31-8-4	36-10-0	38-9-0
1-11-0	3-8-10	3-5-2	4-0-8	2-0-0	4-7-8	4-7-8	4-7-8	4-7-8	5-1-12	1-11-0

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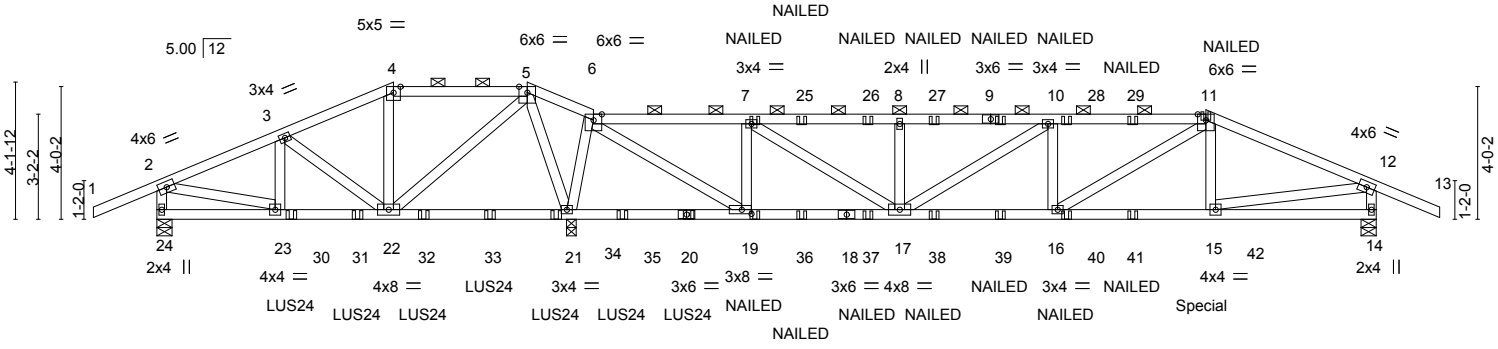

3-8-10	7-1-12	11-2-4	12-6-4	17-9-12	22-5-4	27-0-12	31-8-4	36-10-0
3-8-10	3-5-2	4-0-8	1-4-0	5-3-6	4-7-8	4-7-8	4-7-8	5-1-12
			0-0-2					

Plate Offsets (X,Y)-- [19:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.07	16-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.13	16-17	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.01	14	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 321 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 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5, 6-11.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 24=0-5-8, 21=0-3-8, 14=0-5-8
Max Horz 24=-31(LC 9)
Max Uplift 24=-191(LC 8), 21=-1014(LC 5), 14=-390(LC 9)
Max Grav 24=775(LC 21), 21=4427(LC 1), 14=1554(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-790/217, 3-4=-300/171, 5-6=-545/2468, 6-7=-796/230, 7-8=-2232/591, 8-10=-2232/591, 10-11=-2704/722, 11-12=-2227/583, 2-24=-752/208, 12-14=-1511/407
BOT CHORD 22-23=-179/679, 21-22=-1405/420, 19-21=-2015/532, 17-19=-145/793, 16-17=-633/2700, 15-16=-477/1996
WEBS 3-23=-107/389, 3-22=-597/203, 5-22=-454/1972, 6-21=-1081/306, 6-19=-799/3290, 7-19=-1380/430, 7-17=-426/1705, 8-17=-498/224, 10-17=-561/153, 10-16=-253/162, 11-16=-200/834, 2-23=-167/729, 12-15=-463/1930, 5-21=-2602/609

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 24, 1014 lb uplift at joint 21 and 390 lb uplift at joint 14.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 4-0-0 oc max. starting at 4-0-12 from the left end to 16-0-12 to connect truss(es) to back face of bottom chord.
11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 6-0-12 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
12) Fill all nail holes where hanger is in contact with lumber.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER
April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732338
2742340	C1	Roof Special Girder	1	2	Job Reference (optional)	

NOTES-

13) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 50 lb down at 31-5-12, and 220 lb down and 118 lb up at 31-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-4=-70, 4-5=-70, 5-6=-70, 6-11=-70, 11-12=-70, 12-13=-70, 14-24=-20

Concentrated Loads (lb)

Vert: 9=-73(B) 20=-263(B) 19=-29(B) 7=-73(B) 11=-73(B) 25=-73(B) 26=-73(B) 27=-73(B) 28=-73(B) 29=-73(B) 30=-433(B) 31=-267(B) 32=-272(B) 33=-272(B) 34=-267(B) 35=-267(B) 36=-29(B) 37=-29(B) 38=-29(B) 39=-29(B) 40=-29(B) 41=-29(B) 42=-249(B)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	C2	Roof Special	1	1	Job Reference (optional)

I45732339

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 01 14:35:31 2021 Page 1
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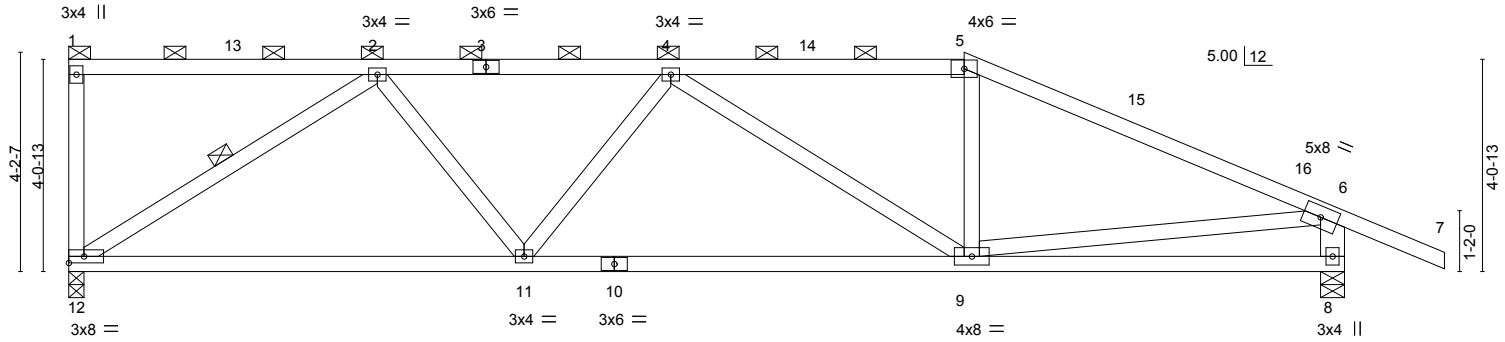

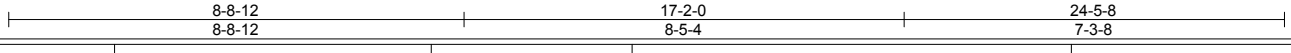

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.13	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.27	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	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 *Except* 6-8: 2x6 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-4-15 max.): 1-5.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 2-12

REACTIONS. (size) 12=0-3-8, 8=0-5-8
Max Horz 12=-160(LC 8)
Max Uplift 12=-194(LC 8), 8=-191(LC 9)
Max Grav 12=1077(LC 1), 8=1241(LC 1)

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

TOP CHORD	2-4=-1580/274, 4-5=-1446/254, 5-6=-1665/245, 6-8=-1172/286
BOT CHORD	11-12=-177/1289, 9-11=-240/1737, 8-9=-84/297
WEBS	2-12=-1483/298, 2-11=-18/491, 4-11=-263/117, 4-9=-460/111, 5-9=0/301, 6-9=-142/1158

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 17-2-0, Exterior(2R) 17-2-0 to 20-2-0 , Interior(1) 20-2-0 to 26-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 194 lb uplift at joint 12 and 191 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732340
2742340	C3	Roof Special	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 14 14:33:23 2021 Page 1
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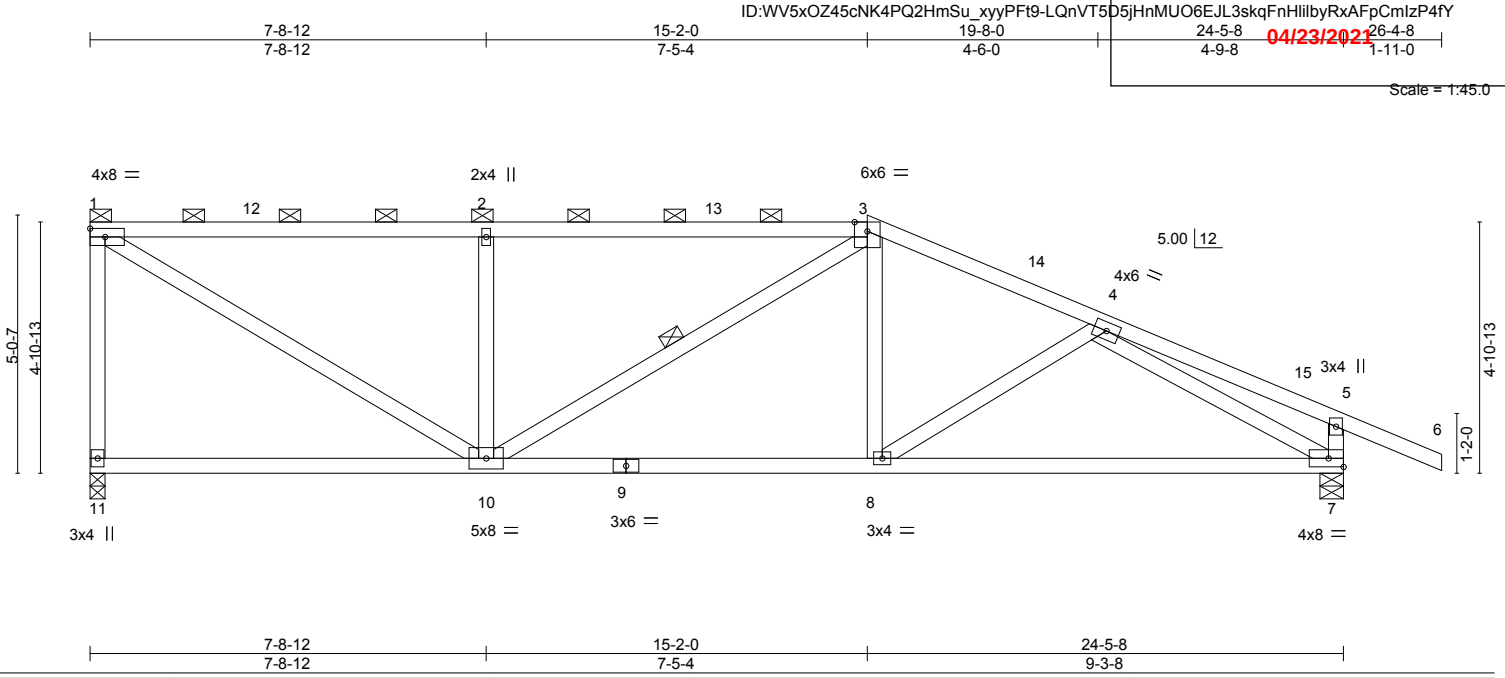


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.15	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.31	7-8	>945	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 106 lb	FT = 20%

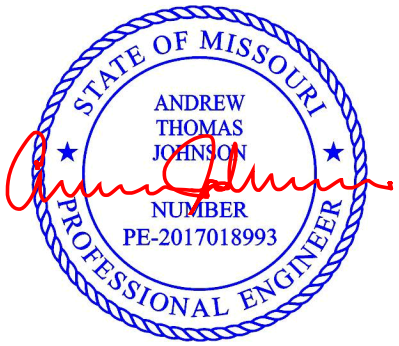
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-11-15 max.): 1-3.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-10

REACTIONS. (size) 11=0-3-8, 7=0-5-8
Max Horz 11=-192(LC 10)
Max Uplift 11=-192(LC 8), 7=-174(LC 9)
Max Grav 11=1081(LC 1), 7=1238(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-11=-1007/217, 1-2=-1322/259, 2-3=-1324/261, 3-4=-1528/255, 4-5=-292/41, 5-7=-396/144
BOT CHORD 8-10=-114/1364, 7-8=-150/1376
WEBS 1-10=-265/1488, 2-10=-603/214, 3-8=0/300, 4-7=-1431/279

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 15-2-0, Exterior(2R) 15-2-0 to 18-2-0 , Interior(1) 18-2-0 to 26-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 192 lb uplift at joint 11 and 174 lb uplift at joint 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732341
2742340	C4	Roof Special	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:39:24 2021 Page 1
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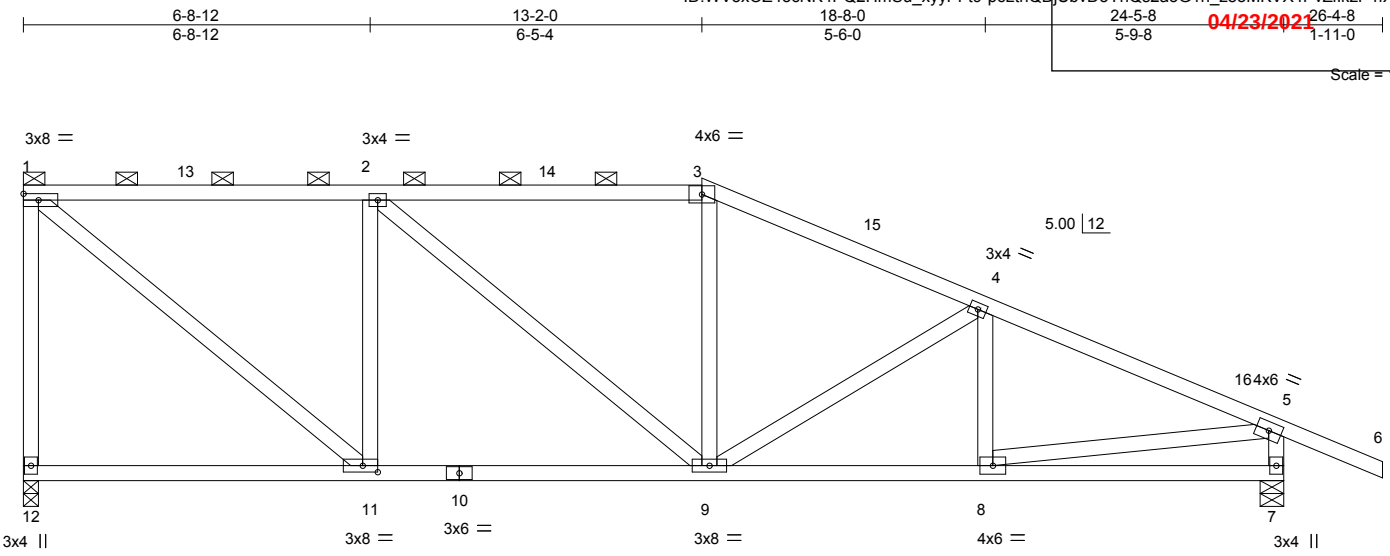

Plate Offsets (X,Y)-- [11:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.06	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.12	9-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 113 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, and 2-0-0 oc purlins (4-9-6 max.): 1-3.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 12=0-3-8, 7=0-5-8
Max Horz 12=-225(LC 8)
Max Uplift 12=-188(LC 8), 7=-171(LC 13)
Max Grav 12=1081(LC 1), 7=1238(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-1018/207, 1-2=-1018/228, 2-3=-1215/259, 3-4=-1384/253, 4-5=-1661/238, 5-7=-1175/274
BOT CHORD 9-11=-70/1018, 8-9=-134/1460
WEBS 1-11=-231/1282, 2-11=-680/215, 2-9=-98/253, 4-9=-286/136, 5-8=-180/1333

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 13-2-0, Exterior(2R) 13-2-0 to 16-2-0 , Interior(1) 16-2-0 to 26-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 188 lb uplift at joint 12 and 171 lb uplift at joint 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732342
2742340	C5	Hip	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 17:39:12 2021 Page 1
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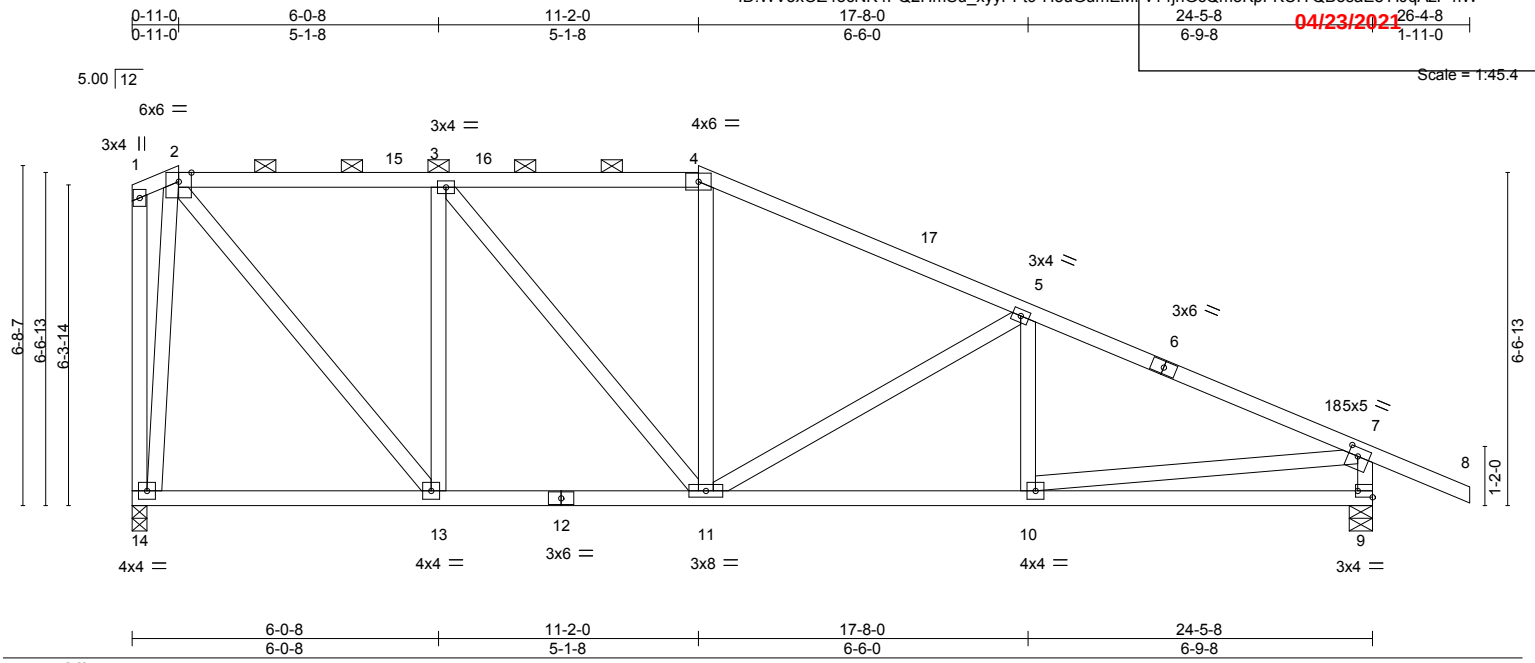


Plate Offsets (X,Y)-- [7:0-2-4,0-2-0], [9:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.06	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.13	10-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 125 lb	FT = 20%

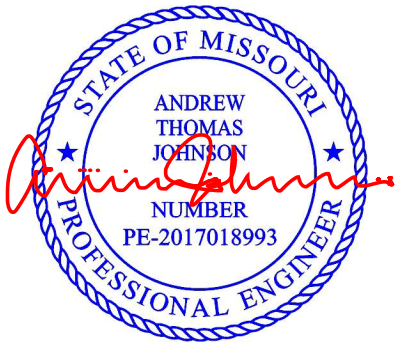
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-5-15 max.): 2-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 14=0-3-8, 9=0-5-8
Max Horz 14=-250(LC 10)
Max Uplift 14=-174(LC 8), 9=-212(LC 13)
Max Grav 14=1081(LC 1), 9=1238(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-804/185, 3-4=-1057/251, 4-5=-1233/236, 5-7=-1688/273, 7-9=-1169/243
BOT CHORD 11-13=-15/801, 10-11=-173/1475
WEBS 2-13=-171/1054, 3-13=-704/182, 3-11=-111/396, 5-11=-485/158, 7-10=-133/1278, 2-14=-1064/293

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 0-11-0, Exterior(2R) 0-11-0 to 5-1-15, Interior(1) 5-1-15 to 11-2-0 , Exterior(2R) 11-2-0 to 15-4-15, Interior(1) 15-4-15 to 26-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 174 lb uplift at joint 14 and 212 lb uplift at joint 9.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732343
2742340	C6	Hip	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:39:20 2021 Page 1
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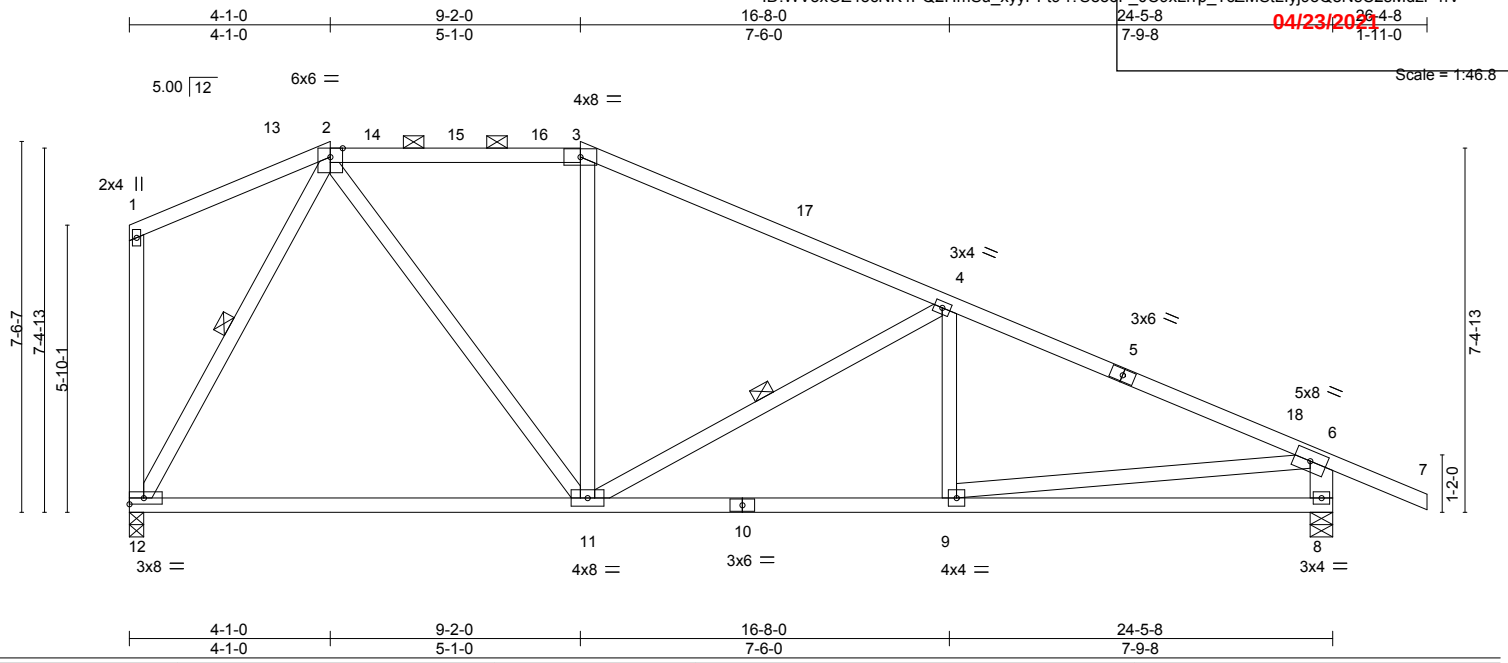

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.18	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.37	11-12	>784	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 116 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
6-8: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-11-1 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-11, 2-12

REACTIONS. (size) 12=0-3-8, 8=0-5-8
Max Horz 12=-228(LC 8)
Max Uplift 12=-124(LC 8), 8=-207(LC 13)
Max Grav 12=1077(LC 1), 8=1241(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-899/219, 3-4=-1076/196, 4-6=-1664/261, 6-8=-1161/252
BOT CHORD 11-12=0/493, 9-11=-152/1442, 8-9=-59/289
WEBS 2-11=-131/718, 4-11=-628/204, 2-12=-977/220, 6-9=-126/1163

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-1-0, Exterior(2R) 4-1-0 to 8-3-15, Interior(1) 8-3-15 to 9-2-0, Exterior(2R) 9-2-0 to 13-4-15, Interior(1) 13-4-15 to 26-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 12 and 207 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732344
2742340	C7	Roof Special	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:38:27 2021 Page 1
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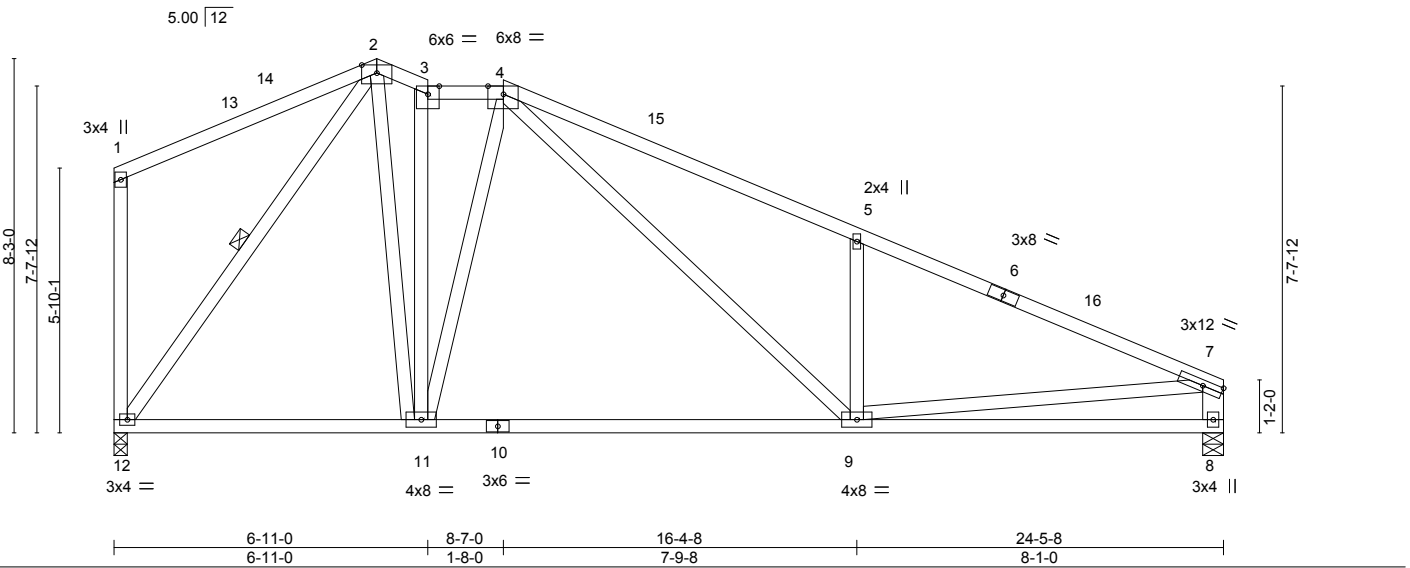

Plate Offsets (X,Y)-- [4:0-4-2,Edge]

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	0.61	Vert(LL)	-0.16	9-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.34	9-11	>848	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.02	8	n/a	n/a		
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 *Except*
7-8: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-12

REACTIONS. (size) 12=0-3-8, 8=0-5-8
Max Horz 12=-210(LC 8)
Max Uplift 12=-138(LC 13), 8=-163(LC 13)
Max Grav 12=1084(LC 1), 8=1084(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-710/229, 3-4=-707/223, 4-5=-1698/388, 5-7=-1704/263, 7-8=-1009/191
BOT CHORD 11-12=-20/617, 9-11=-62/826, 8-9=-84/345
WEBS 2-11=-149/826, 4-11=-528/200, 4-9=-244/902, 5-9=-578/261, 2-12=-1028/200, 7-9=-117/1146

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 5-9-8, Exterior(2E) 5-9-8 to 6-11-0, Interior(1) 6-11-0 to 8-7-0, Exterior(2R) 8-7-0 to 11-7-0, Interior(1) 11-7-0 to 24-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 12 and 163 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	C8	Roof Special Girder	1	2	Job Reference (optional)

I45732345

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:38:23 2021 Page 1
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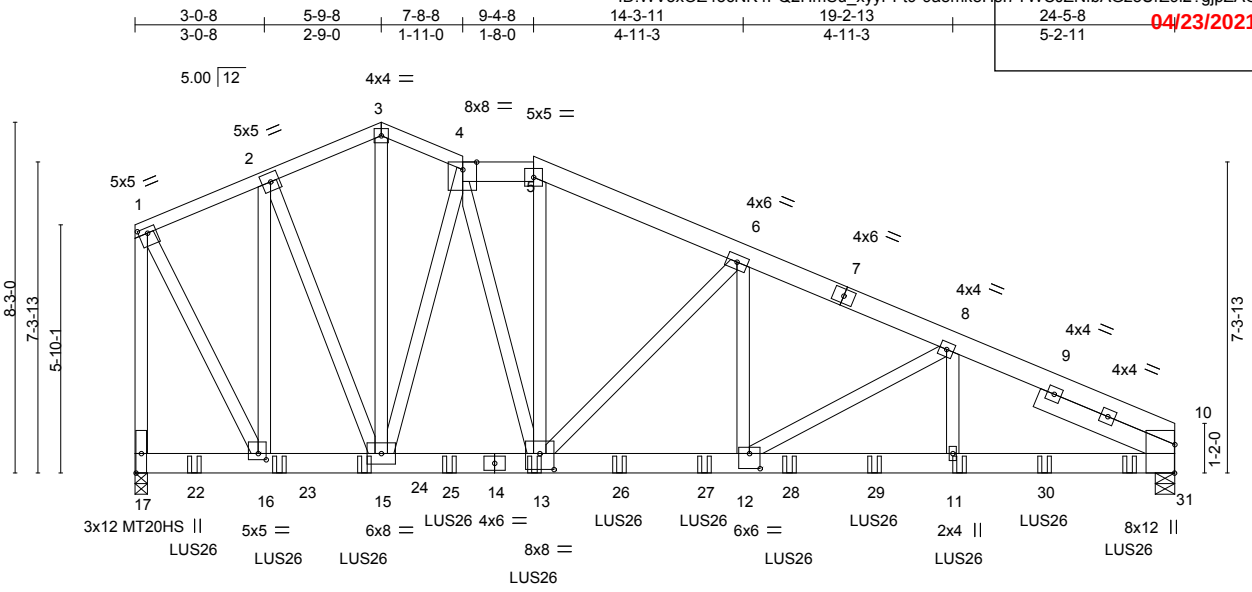

Plate Offsets (X,Y)-- [1:0-2-8,0-1-8], [4:0-3-14,Edge], [10:0-8-1,Edge], [12:0-3-0,0-4-4], [13:0-4-0,0-4-8], [16:0-2-4,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.14	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.25	11-12	>999	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.06	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 345 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except* 1-3,3-4: 2x4 SPF No.2
BOT CHORD 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
SLIDER Right 2x6 SPF No.2 -t 3-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-6-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 17=0-3-8, 10=0-5-8
Max Horz 17=-201(LC 6)
Max Uplift 17=-951(LC 9), 10=-882(LC 9)
Max Grav 17=5452(LC 1), 10=5418(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2371/480, 2-3=-3374/686, 3-4=-3388/685, 4-5=-4733/926, 5-6=-5202/976, 6-8=-7460/1310, 8-10=-8610/1454, 1-17=-5055/910
BOT CHORD 15-16=-263/2143, 13-15=-581/4078, 12-13=-1092/6892, 11-12=-1249/7709, 10-11=-1249/7709
WEBS 2-16=-2870/507, 2-15=-460/2542, 3-15=-479/2380, 4-15=-3692/728, 4-13=-481/2582, 5-13=-227/1404, 6-13=-3080/565, 6-12=-383/2588, 8-12=-959/181, 8-11=-162/1386, 1-16=-794/4557

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 951 lb uplift at joint 17 and 882 lb uplift at joint 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 4-0-0 oc max. starting at 1-4-12 from the left end to 11-4-12 to connect truss(es) to front face of bottom chord.

April 20,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	C8	Roof Special Girder	1	2	Job Reference (optional)

I45732345

NOTES-

12) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent at 7-4-12 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
13) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 13-4-12 from the left end to 21-4-12 to connect truss(es) to front face of bottom chord.
14) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent at 23-4-12 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
15) 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, 3-4=-70, 4-5=-70, 5-10=-70, 17-18=-20
   Concentrated Loads (lb)
   Vert: 13=-727(F) 11=-727(F) 22=-736(F) 23=-727(F) 24=-727(F) 25=-763(F) 26=-727(F) 27=-727(F) 28=-727(F) 29=-727(F) 30=-723(F) 31=-646(F)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732346
2742340	CJ1	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:39:23 2021 Page 1
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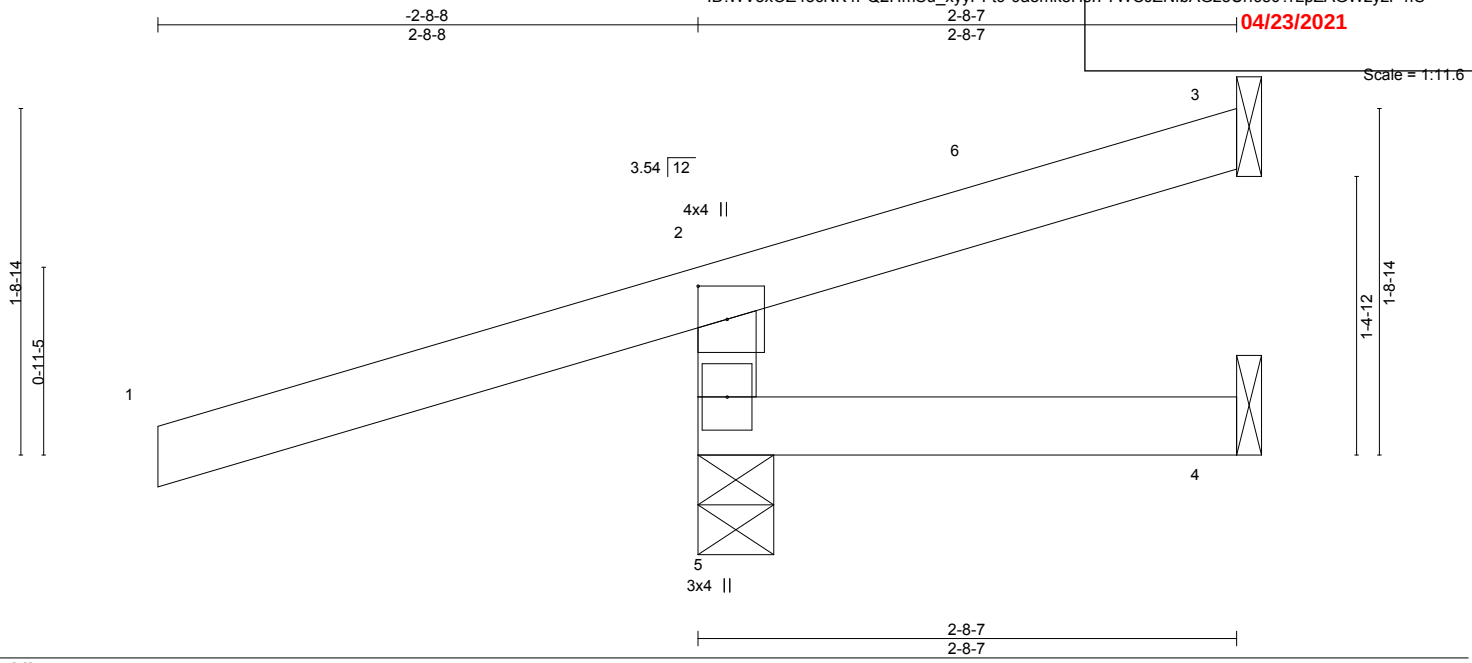

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	0.01	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 10 lb	FT = 20%

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

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

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=58(LC 8)
Max Uplift 5=-171(LC 8), 3=-14(LC 12), 4=-11(LC 1)
Max Grav 5=427(LC 1), 3=10(LC 22), 4=36(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-366/339

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-8-8 to 1-6-6, Exterior(2R) 1-6-6 to 2-7-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 171 lb uplift at joint 5, 14 lb uplift at joint 3 and 11 lb uplift at joint 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.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732347
2742340	CJ2	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:30 2021 Page 1
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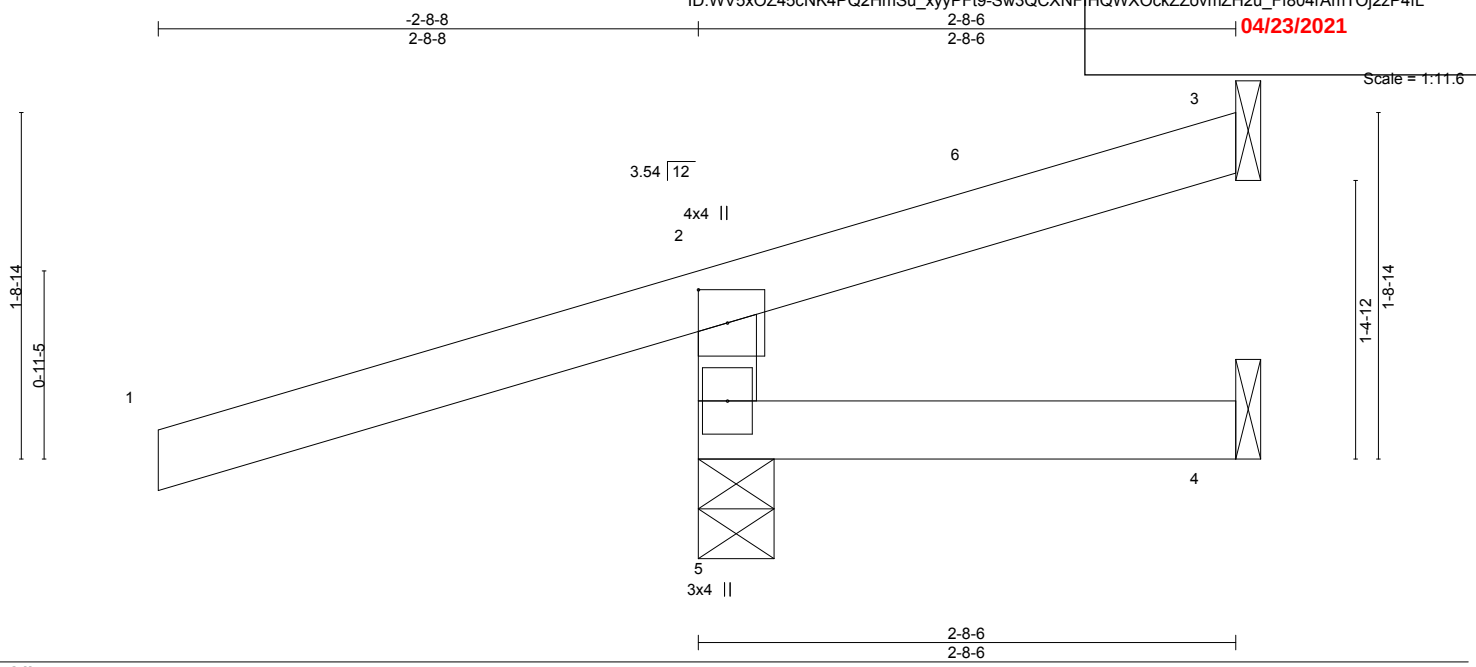

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	0.01	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 10 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=58(LC 8)
Max Uplift 5=-171(LC 8), 3=-14(LC 12), 4=-11(LC 1)
Max Grav 5=427(LC 1), 3=10(LC 22), 4=36(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-366/339

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-8-8 to 1-6-6, Exterior(2R) 1-6-6 to 2-7-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 171 lb uplift at joint 5, 14 lb uplift at joint 3 and 11 lb uplift at joint 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.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732348
2742340	CJ3	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:37 2021 Page 1
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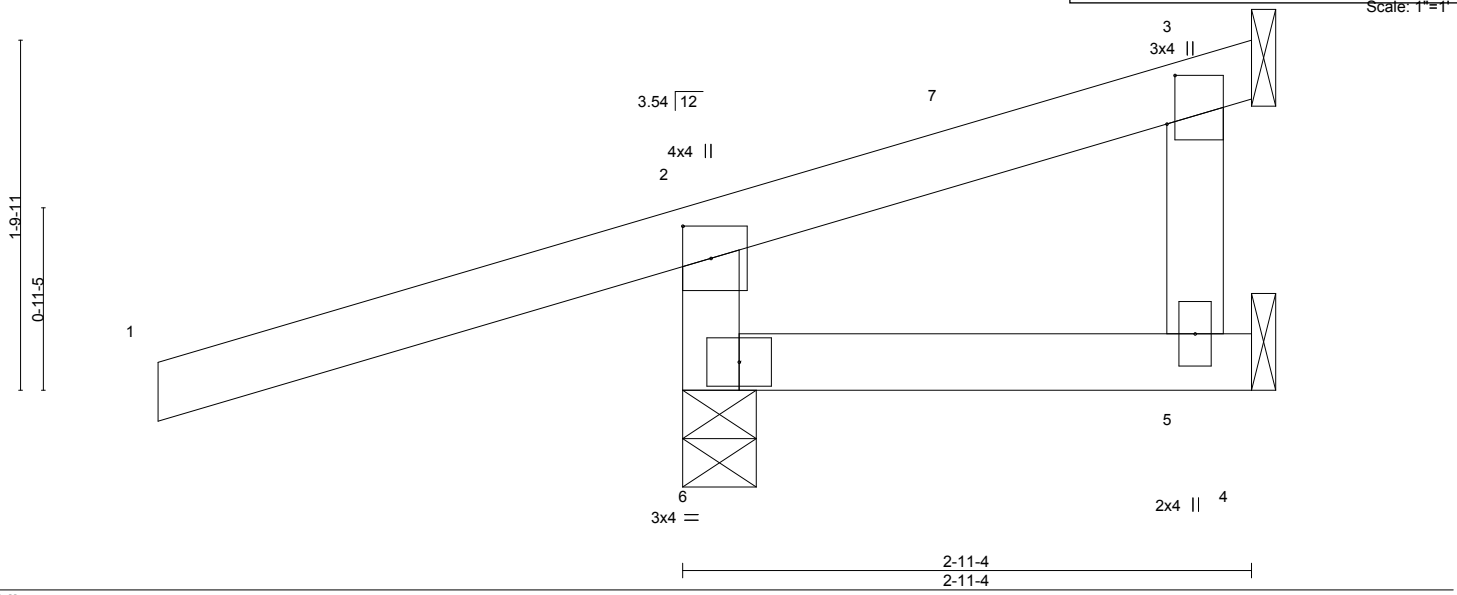

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [3:0-3-0,0-0-8]

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	0.58	Vert(LL)	0.01	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	0.01	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 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 2-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-4-9, 5=Mechanical, 3=Mechanical
Max Horz 6=55(LC 8)
Max Uplift 6=-172(LC 8), 5=-10(LC 25), 3=-48(LC 25)
Max Grav 6=426(LC 1), 5=49(LC 3), 3=10(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-366/339

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-8-8 to 1-6-6, Exterior(2R) 1-6-6 to 2-7-12 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 172 lb uplift at joint 6, 10 lb uplift at joint 5 and 48 lb uplift at joint 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	CJ4	Diagonal Hip Girder	1	1	Job Reference (optional)

I45732349

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LINN COUNTY, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:38:33 2021 Page 1
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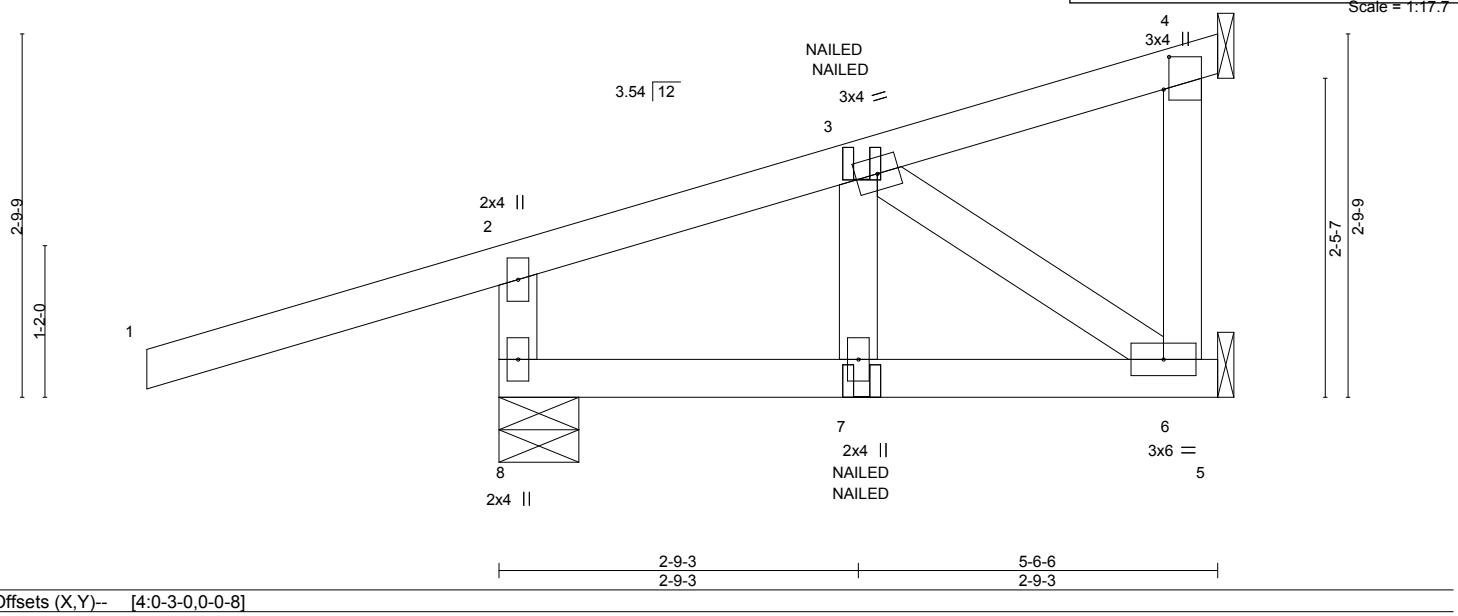

Plate Offsets (X,Y)-- [4:0-3-0,0-0-8]

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	0.67	Vert(LL)	-0.08	7	>753	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.08	7	>734	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	-0.08	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 24 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, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-7-6, 6=Mechanical, 4=Mechanical
Max Horz 8=83(LC 4)
Max Uplift 8=-155(LC 4), 6=-25(LC 5), 4=-19(LC 8)
Max Grav 8=452(LC 1), 6=68(LC 3), 4=106(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-419/194

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 155 lb uplift at joint 8, 25 lb uplift at joint 6 and 19 lb uplift at joint 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 5-8=-20
Concentrated Loads (lb)
Vert: 3=70(F=35, B=35)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732350
2742340	CJ5	Diagonal Hip Girder	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 14 11:33:33 2021 Page 1
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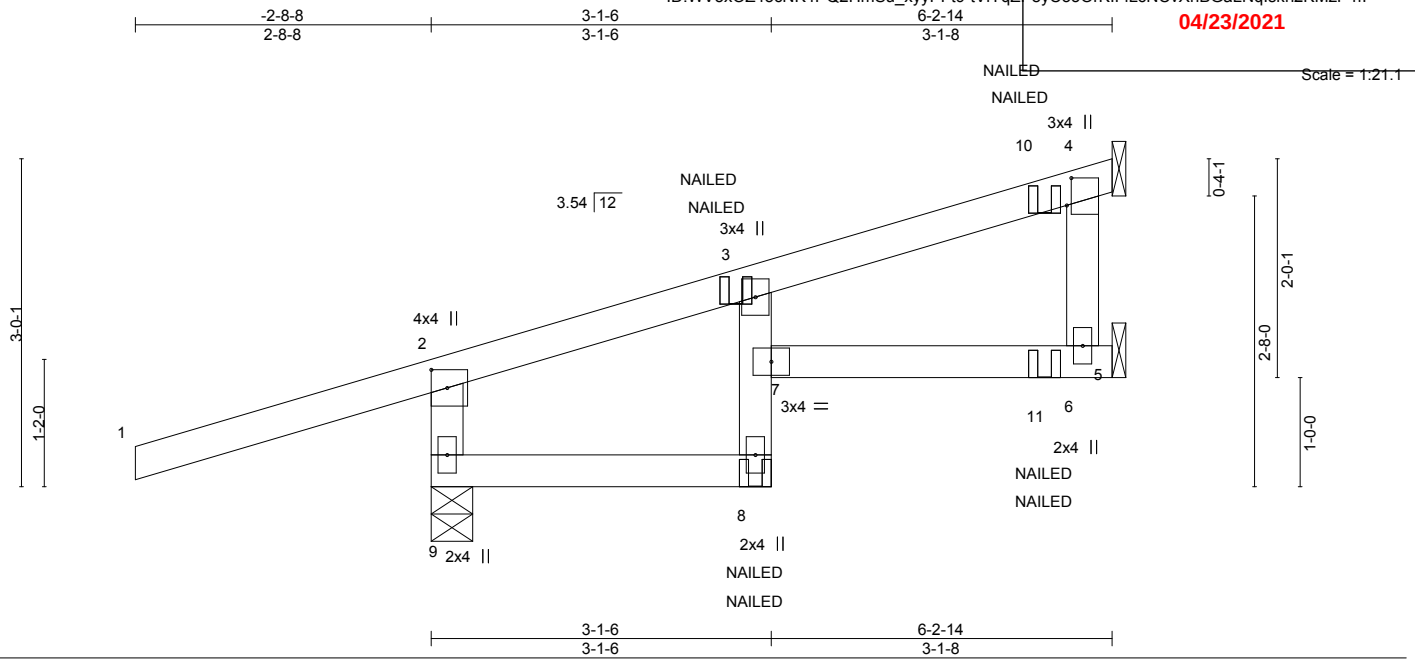

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [4:0-3-0,0-0-8]

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	0.67	Vert(LL)	-0.05	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.07	8	>964	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 22 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 8-9.

REACTIONS. (size) 9=0-4-9, 6=Mechanical, 4=Mechanical
Max Horz 9=90(LC 4)
Max Uplift 9=-160(LC 4), 6=-35(LC 9), 4=-86(LC 9)
Max Grav 9=480(LC 1), 6=109(LC 3), 4=179(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-9=-424/171

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 160 lb uplift at joint 9, 35 lb uplift at joint 6 and 86 lb uplift at joint 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 8-9=-20, 5-7=-20
Concentrated Loads (lb)
Vert: 3=70(F=35, B=35) 10=-54(F=-27, B=-27) 11=-35(F=-17, B=-17)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	CJ6	Jack-Open	1	1	Job Reference (optional)

I45732351

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:33 2021 Page 1
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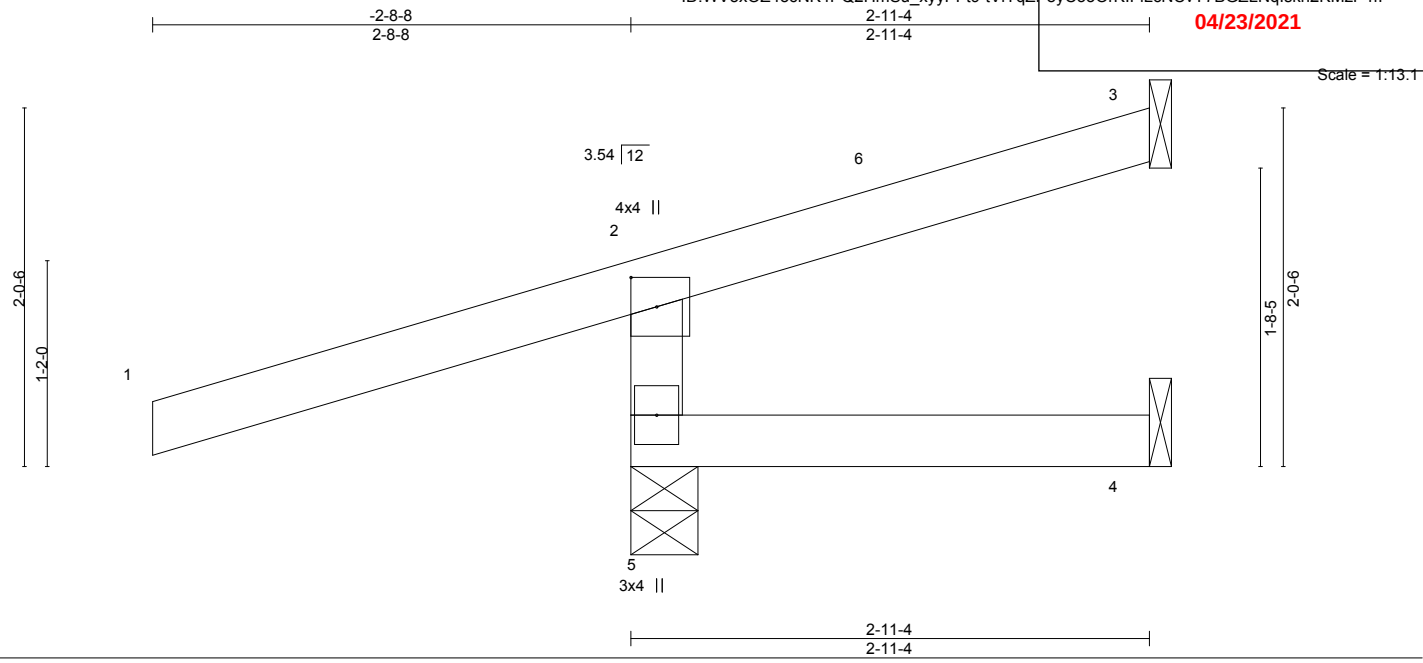

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	0.01	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 11 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=57(LC 8)
Max Uplift 5=-163(LC 8), 3=-20(LC 12), 4=-3(LC 1)
Max Grav 5=427(LC 1), 3=21(LC 1), 4=42(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-370/337

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-8-8 to 1-6-6, Exterior(2R) 1-6-6 to 2-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 163 lb uplift at joint 5, 20 lb uplift at joint 3 and 3 lb uplift at joint 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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	CJ7	Jack-Open	1	1	Job Reference (optional)

I45732352

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:38:40 2021 Page 1
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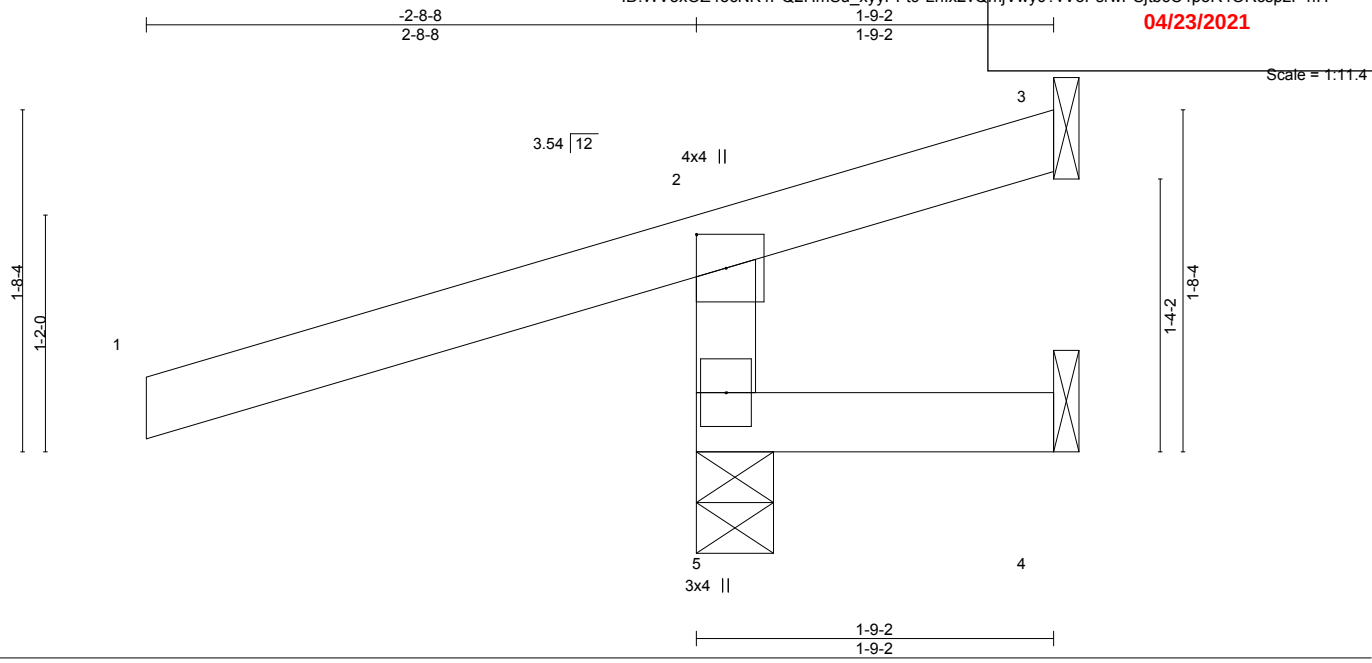


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 8 lb	FT = 20%

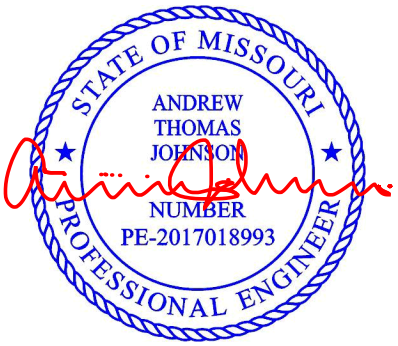
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=45(LC 9)
Max Uplift 5=-191(LC 8), 3=-75(LC 1), 4=-31(LC 1)
Max Grav 5=450(LC 1), 3=40(LC 8), 4=19(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-387/367

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 5, 75 lb uplift at joint 3 and 31 lb uplift at joint 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.



April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	CJ8	Jack-Open	2	1	Job Reference (optional)

I45732353

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:39:40 2021 Page 1
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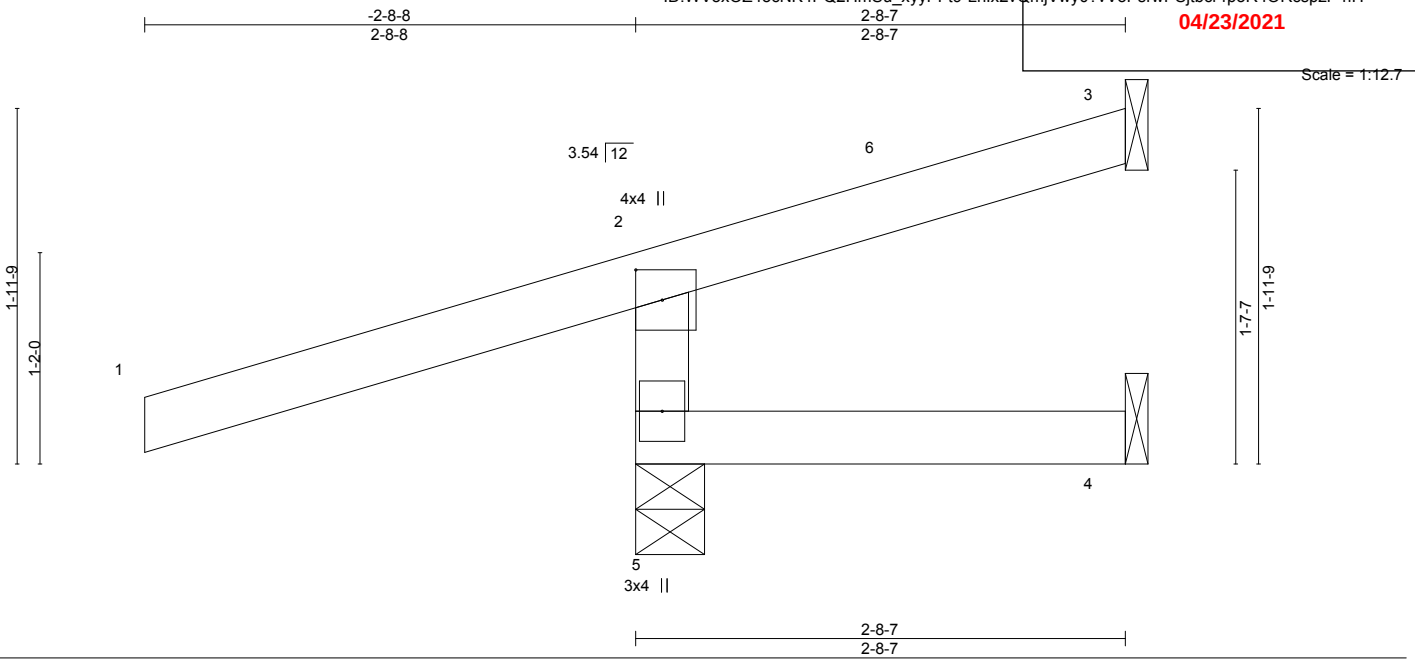

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	0.01	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 10 lb	FT = 20%

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

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

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=54(LC 8)
Max Uplift 5=-166(LC 8), 3=-16(LC 12), 4=-8(LC 1)
Max Grav 5=427(LC 1), 3=8(LC 22), 4=37(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-369/337

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-8-8 to 1-6-6, Exterior(2R) 1-6-6 to 2-7-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 166 lb uplift at joint 5, 16 lb uplift at joint 3 and 8 lb uplift at joint 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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	CJ9	Diagonal Hip Girder	1	1	Job Reference (optional)

I45732354

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:34 2021 Page 1
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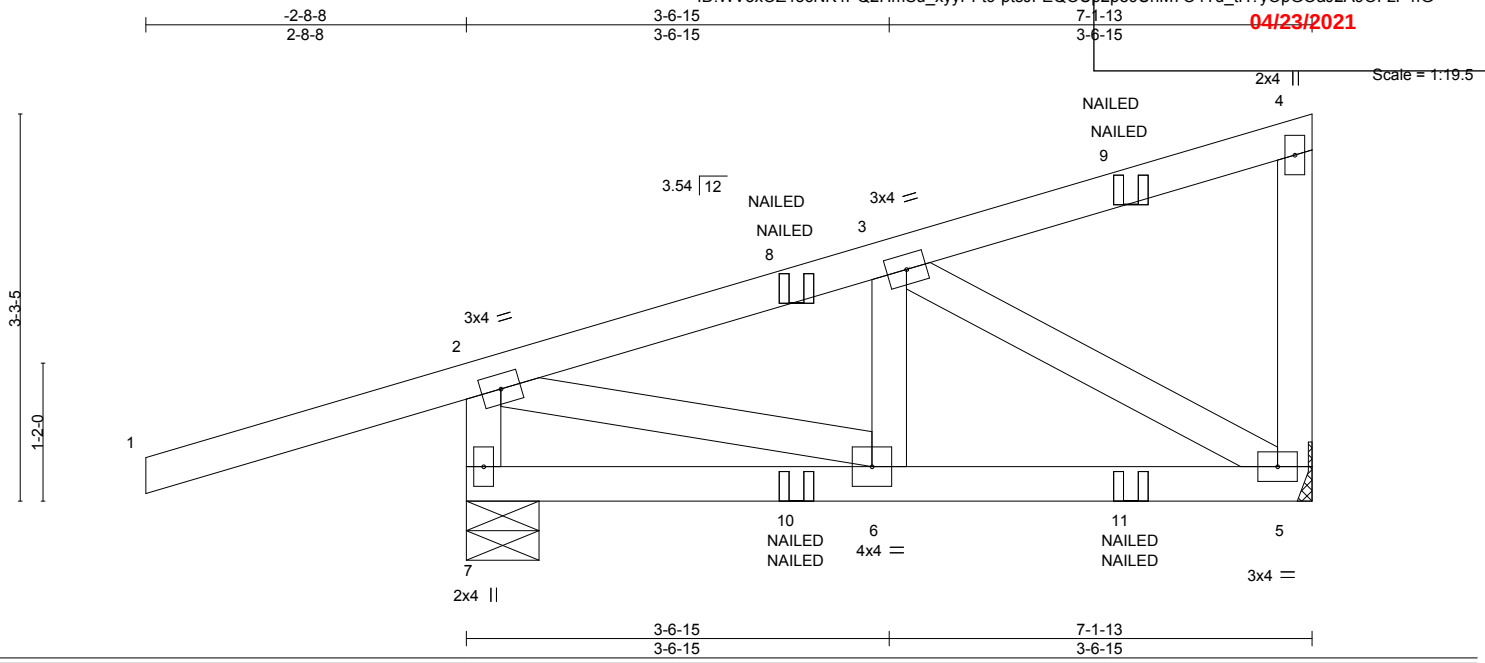

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.01	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 33 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-7-6, 5=Mechanical
Max Horz 7=102(LC 4)
Max Uplift 7=-166(LC 4), 5=-90(LC 5)
Max Grav 7=509(LC 1), 5=248(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-483/169, 2-3=-267/70

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 166 lb uplift at joint 7 and 90 lb uplift at joint 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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: 1-2=-70, 2-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 8=70(F=35, B=35) 9=-3(F=-2, B=-2) 11=-7(F=-3, B=-3)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	CJ10	Jack-Open	1	1	Job Reference (optional)

I45732355

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:30 2021 Page 1
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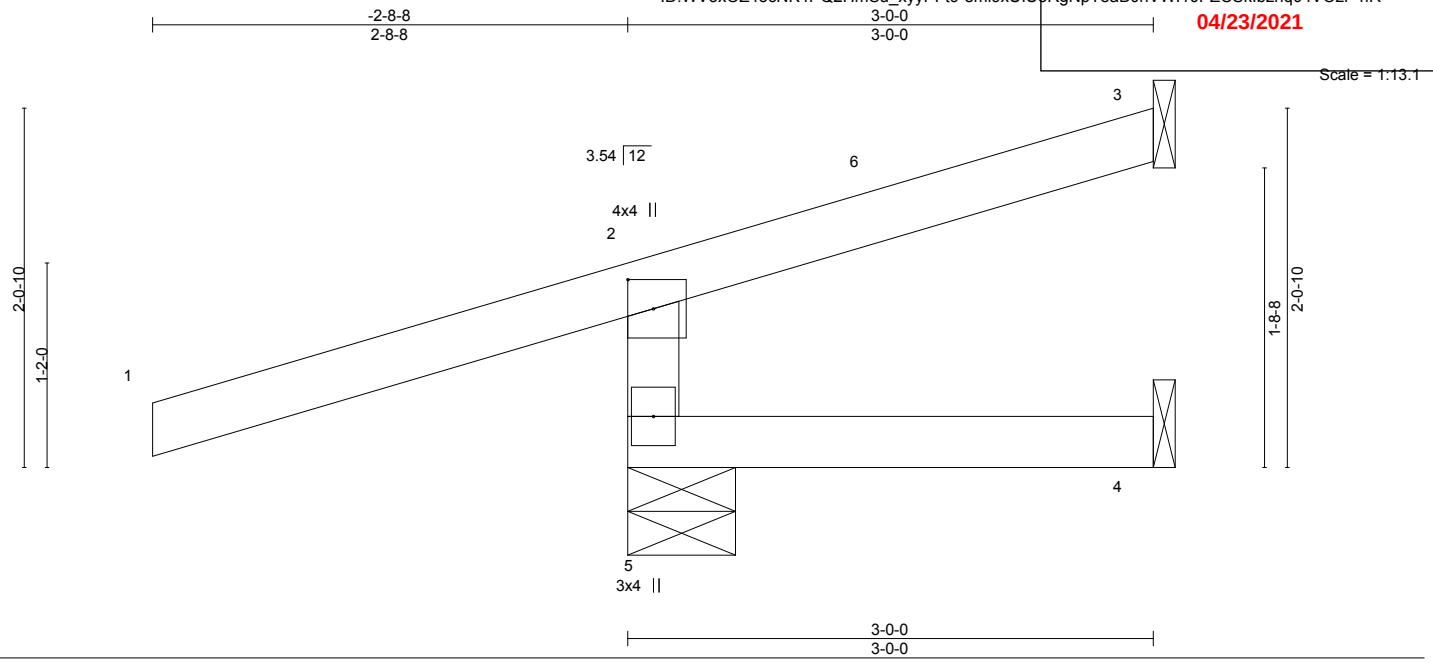

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	0.01	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 11 lb	FT = 20%

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

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

REACTIONS. (size) 5=0-7-6, 3=Mechanical, 4=Mechanical
Max Horz 5=58(LC 8)
Max Uplift 5=-162(LC 8), 3=-22(LC 12), 4=-1(LC 1)
Max Grav 5=428(LC 1), 3=25(LC 1), 4=43(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-371/337

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-8-8 to 1-6-6, Exterior(2R) 1-6-6 to 2-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 162 lb uplift at joint 5, 22 lb uplift at joint 3 and 1 lb uplift at joint 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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	CJ11	Diagonal Hip Girder	1	1	Job Reference (optional)

I45732356

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL ONLY

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:31 2021 Page 1
ID:WV5xOZ45cNK4PQ2HmSu_xyyPFt9-6yGX9qJ7qkoERcjmn0Ck3WaDXzVwTlr60Uld2qzP4fQ

04/23/2021

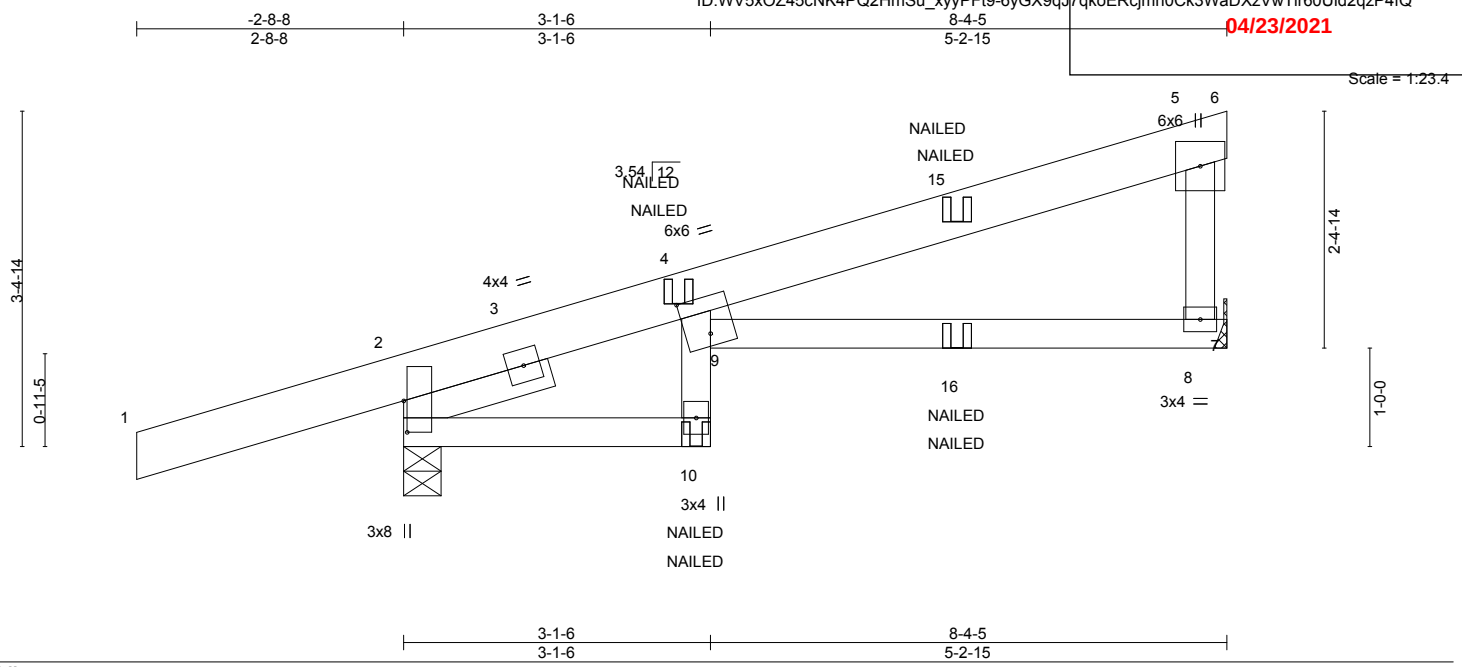

Plate Offsets (X,Y)-- [2:0-3-13,0-0-7], [4:0-3-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	0.07	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.11	8-9	>875	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 35 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -t 1-6-14

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

REACTIONS. (size) 8=Mechanical, 2=0-4-9
Max Horz 2=104(LC 5)
Max Uplift 8=-98(LC 8), 2=-181(LC 4)
Max Grav 8=339(LC 21), 2=568(LC 21)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; 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 98 lb uplift at joint 8 and 181 lb uplift at joint 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 5-6=-20, 10-11=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 4=142(F=71, B=71) 15=-11(F=-6, B=-6) 16=-21(F=-10, B=-10)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	CJ12	Roof Special Girder	1	1	Job Reference (optional)

I45732357

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:32 2021 Page 1
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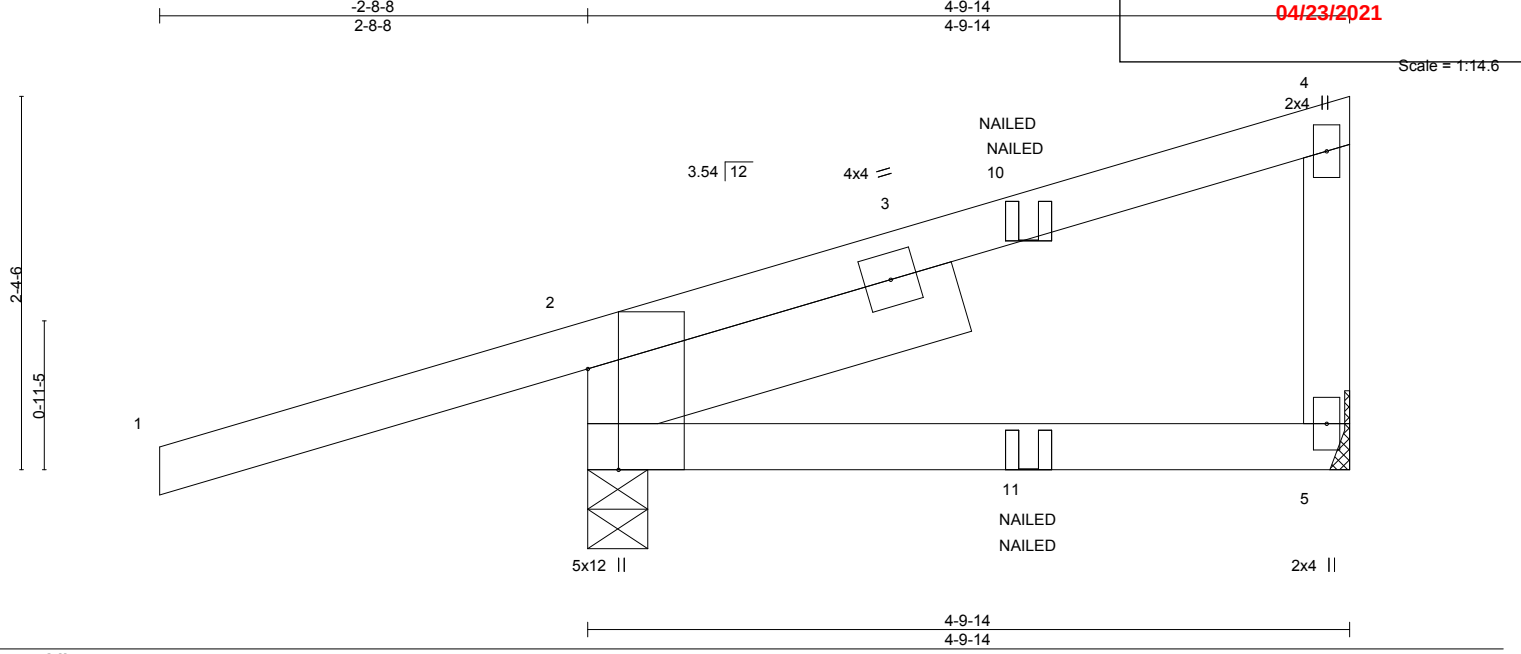

Plate Offsets (X,Y)-- [2:0-7-11,Edge]

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	0.60	Vert(LL)	0.02	5-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.03	5-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 21 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 2=0-4-9
Max Horz 2=86(LC 7)
Max Uplift 5=-29(LC 8), 2=-158(LC 4)
Max Grav 5=136(LC 21), 2=442(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-234/304

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 5 and 158 lb uplift at joint 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 5-6=-20
Concentrated Loads (lb)
Vert: 10=142(F=71, B=71)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732358
2742340	CJ13	Diagonal Hip Girder	2	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STATE OF MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:33 2021 Page 1
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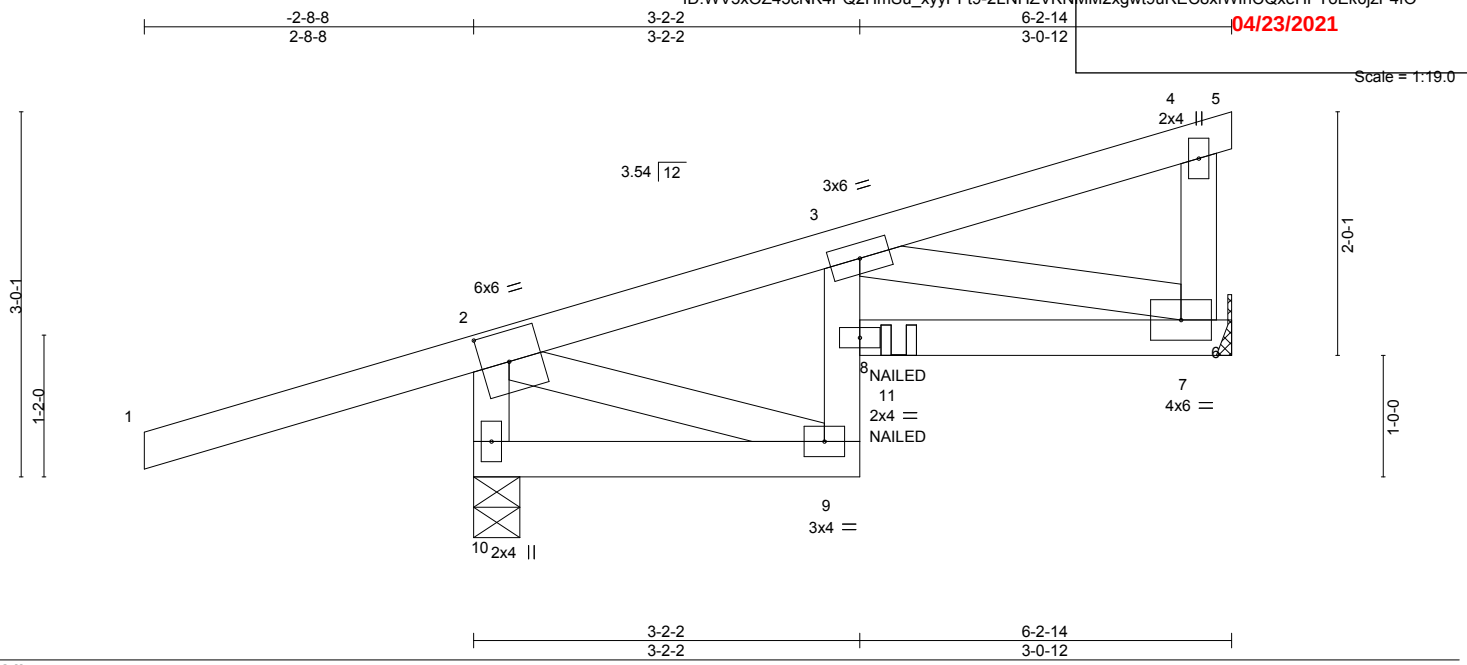

Plate Offsets (X,Y)-- [2:0-2-12,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.01	8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.02	8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 28 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 10=0-4-9, 7=Mechanical
Max Horz 10=101(LC 5)
Max Uplift 10=-190(LC 4), 7=-82(LC 8)
Max Grav 10=511(LC 1), 7=224(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-10=-490/206
BOT CHORD 7-8=-165/327
WEBS 2-9=-79/279, 3-7=-302/170

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 190 lb uplift at joint 10 and 82 lb uplift at joint 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 4-5=-20, 9-10=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 11=0(F=0, B=0)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	CJ14	Diagonal Hip Girder	2	1	Job Reference (optional)

I45732359

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:34 2021 Page 1
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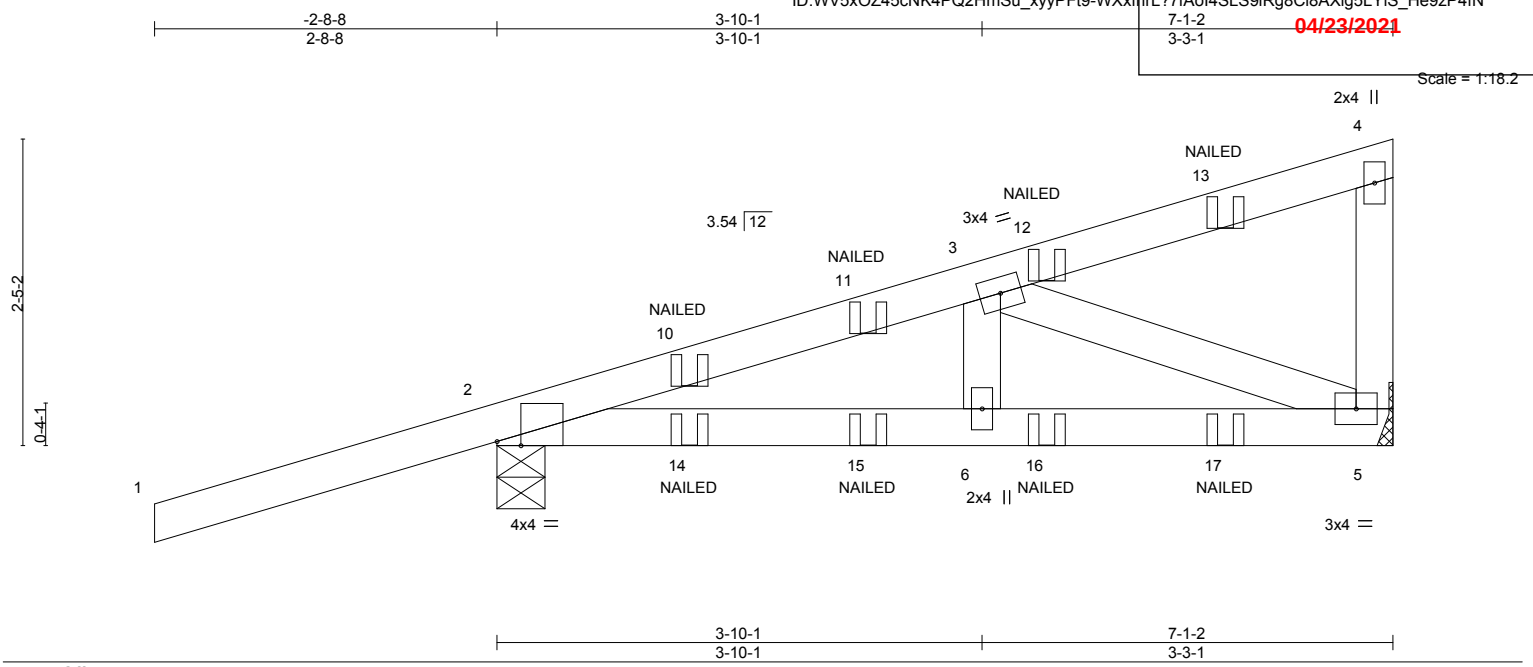

Plate Offsets (X,Y)-- [2:0-2-4,Edge]

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	0.60	Vert(LL)	0.02	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	0.02	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 26 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-4-9, 5=Mechanical
Max Horz 2=97(LC 27)
Max Uplift 2=-164(LC 4), 5=-53(LC 8)
Max Grav 2=481(LC 1), 5=279(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-456/46
BOT CHORD 2-6=-63/373, 5-6=-63/373
WEBS 3-5=-413/73

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 2 and 53 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 10=34(F) 13=-14(B) 14=39(F) 15=10(B) 16=1(F) 17=-15(B)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732360
2742340	CJ15	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:33 2021 Page 1
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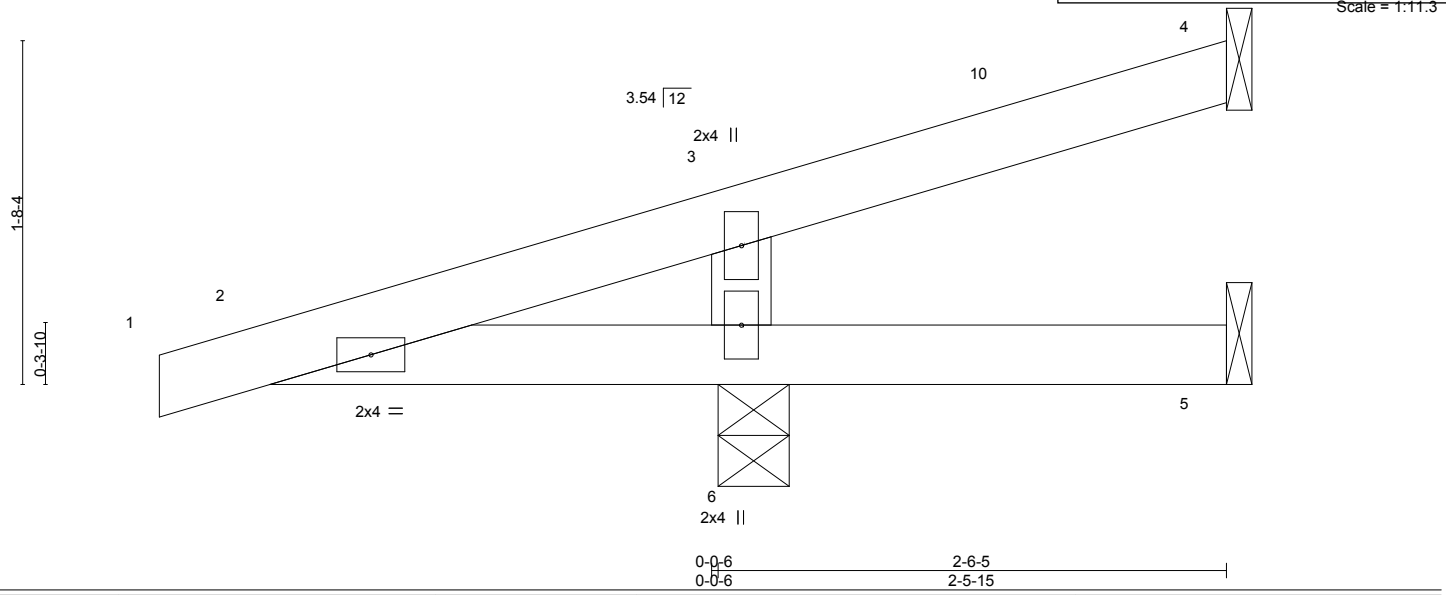

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	0.01	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	0.01	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 12 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-4-3, 4=Mechanical, 5=Mechanical
Max Horz 6=50(LC 9)
Max Uplift 6=-165(LC 8), 4=-18(LC 12), 5=-46(LC 1)
Max Grav 6=497(LC 1), 4=4(LC 1), 5=32(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-6=-304/358

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-8-8 to 1-6-6, Exterior(2R) 1-6-6 to 2-5-9 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 165 lb uplift at joint 6, 18 lb uplift at joint 4 and 46 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	CJ16	Jack-Open	1	1	J45732361

Job Reference (optional)

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:33:33 2021 Page 1
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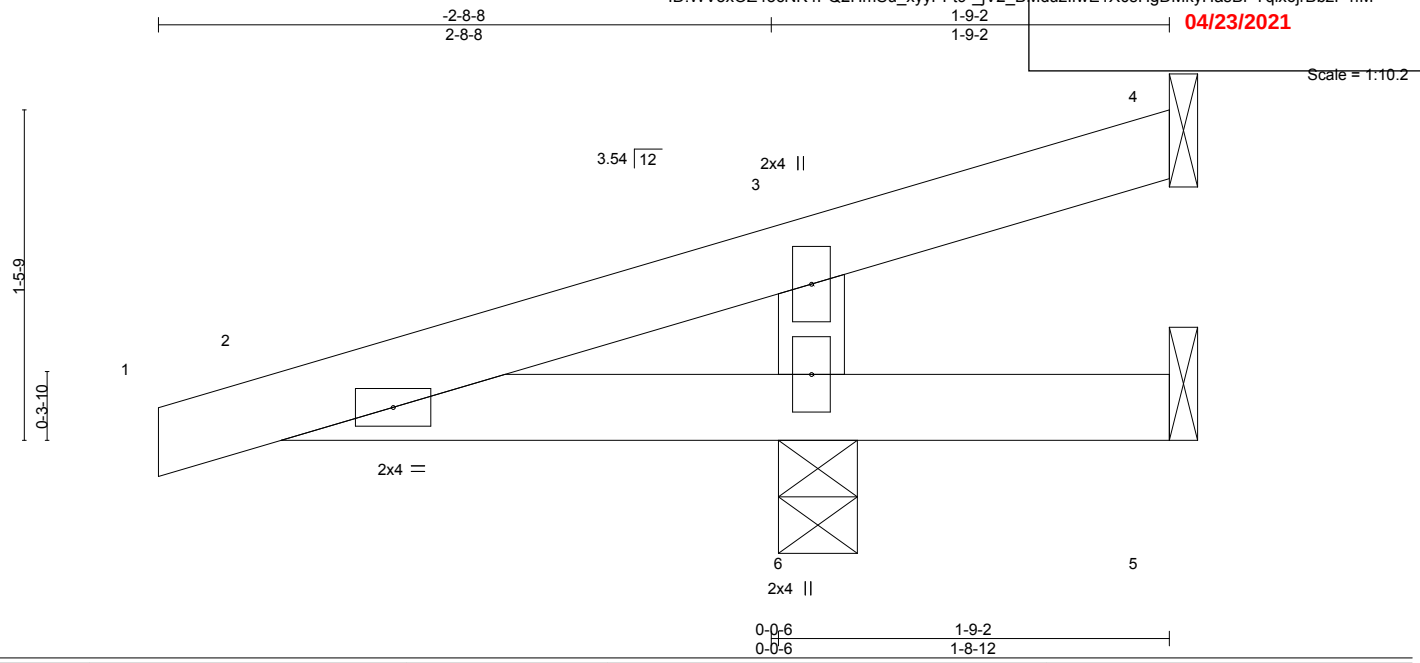
04/23/2021



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	0.32	Vert(LL)	-0.01	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	0.01	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.03	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 10 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 1-9-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 6=0-4-3
Max Horz 6=50(LC 8)
Max Uplift 4=-56(LC 1), 5=-94(LC 1), 6=-189(LC 8)
Max Grav 4=19(LC 8), 5=45(LC 8), 6=541(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-307/367

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 4, 94 lb uplift at joint 5 and 189 lb uplift at joint 6.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	D1	Half Hip Girder	2	1	Job Reference (optional)

I45732362

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 01 07:43:31 2021 Page 1
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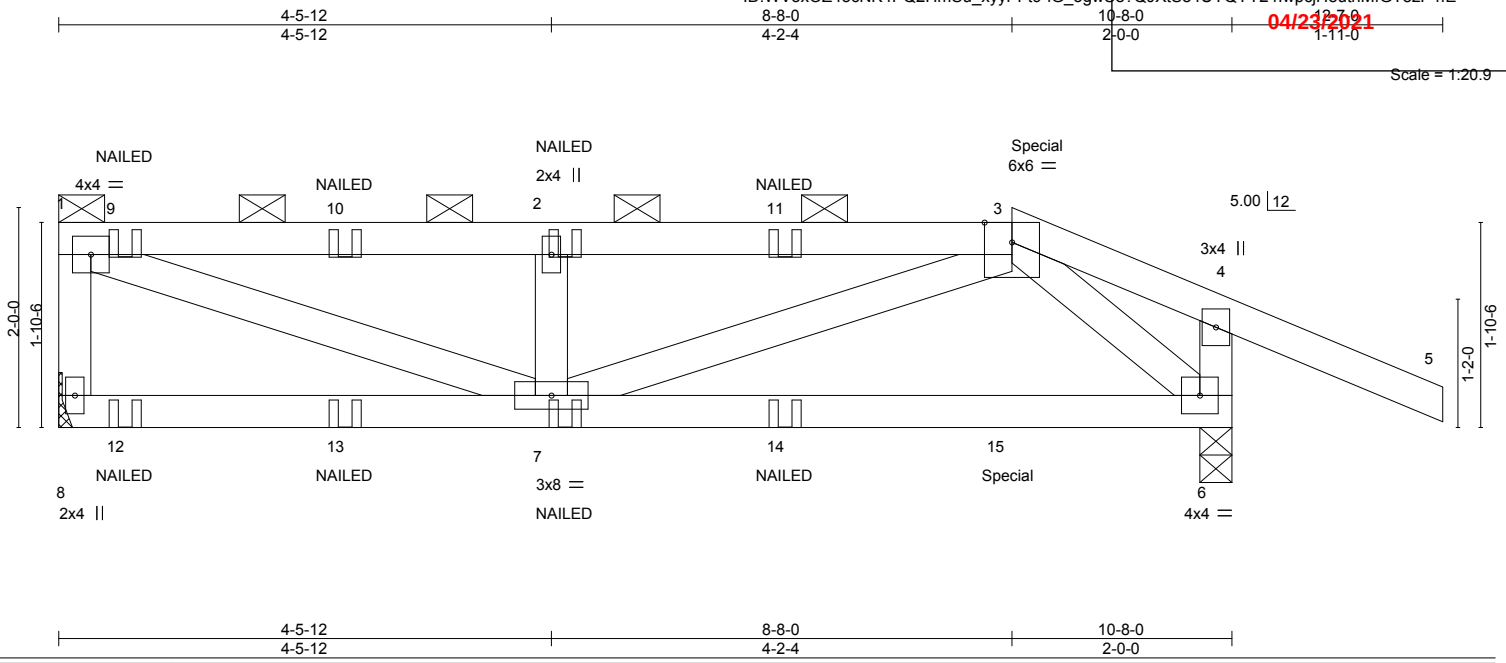

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.04	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.08	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 43 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 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=Mechanical, 6=0-3-8
Max Horz 8=-73(LC 4)
Max Uplift 8=-108(LC 4), 6=-140(LC 5)
Max Grav 8=424(LC 21), 6=603(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-397/112, 1-2=-761/176, 2-3=-764/178
BOT CHORD 6-7=-57/349
WEBS 1-7=-181/764, 2-7=-344/126, 3-7=-94/450, 3-6=-498/127

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 8 and 140 lb uplift at joint 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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 73 lb down and 27 lb up at 8-8-0 on top chord, and 29 lb down and 36 lb up at 8-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732363
2742340	D2	Roof Special	2	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL ONLY
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 01 07:43:30 2021 Page 1
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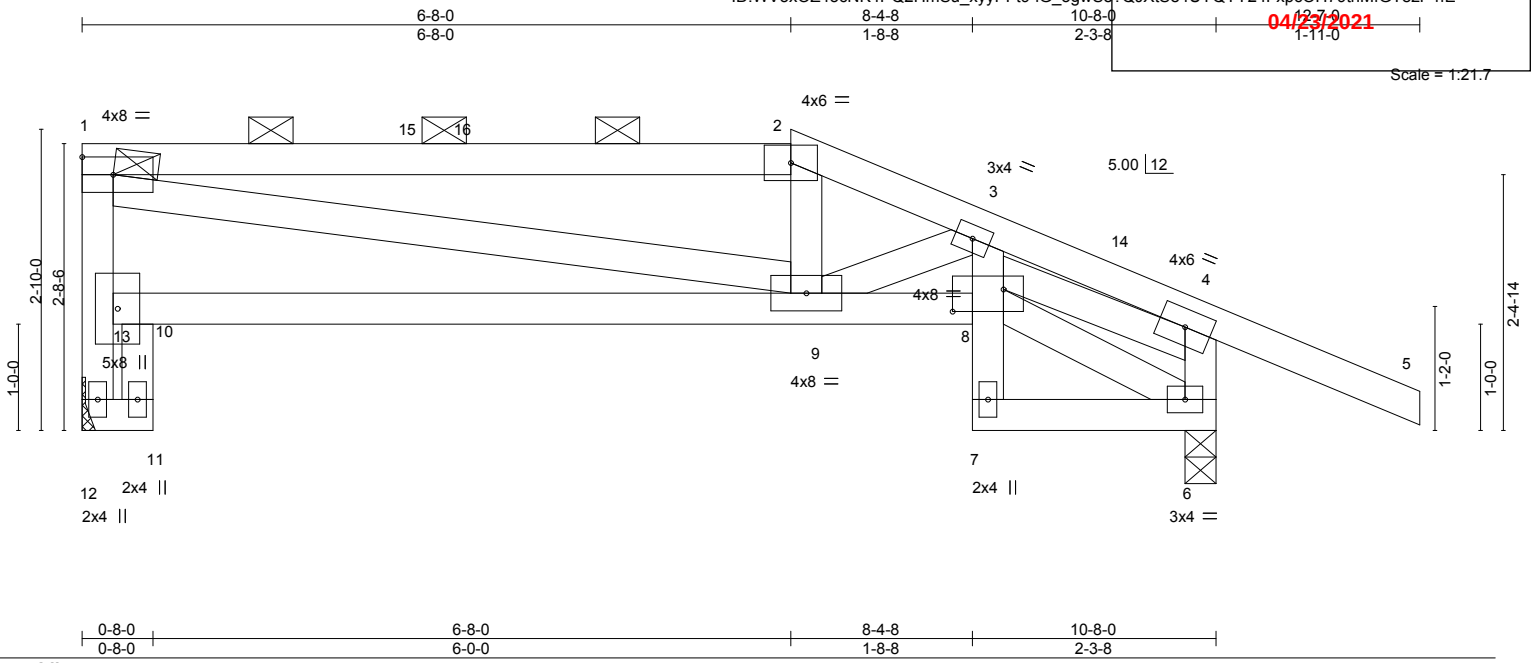

Plate Offsets (X,Y)-- [8:0-5-12,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.05	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.10	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 48 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, and 2-0-0 oc purlins (5-1-10 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 12=Mechanical, 6=0-3-8
Max Horz 12=-105(LC 8)
Max Uplift 12=-85(LC 8), 6=-111(LC 9)
Max Grav 12=453(LC 1), 6=626(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-395/108, 1-13=-373/183, 2-3=-880/224, 3-4=-783/194, 4-6=-550/248, 1-2=-860/279
BOT CHORD 8-9=-95/715
WEBS 1-9=-298/656, 4-8=-138/706

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-8-0, Exterior(2R) 6-8-0 to 9-8-0, Interior(1) 9-8-0 to 12-7-0 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 12 and 111 lb uplift at joint 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.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732364
2742340	D3	Roof Special	2	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 14 11:55:31 2021 Page 1
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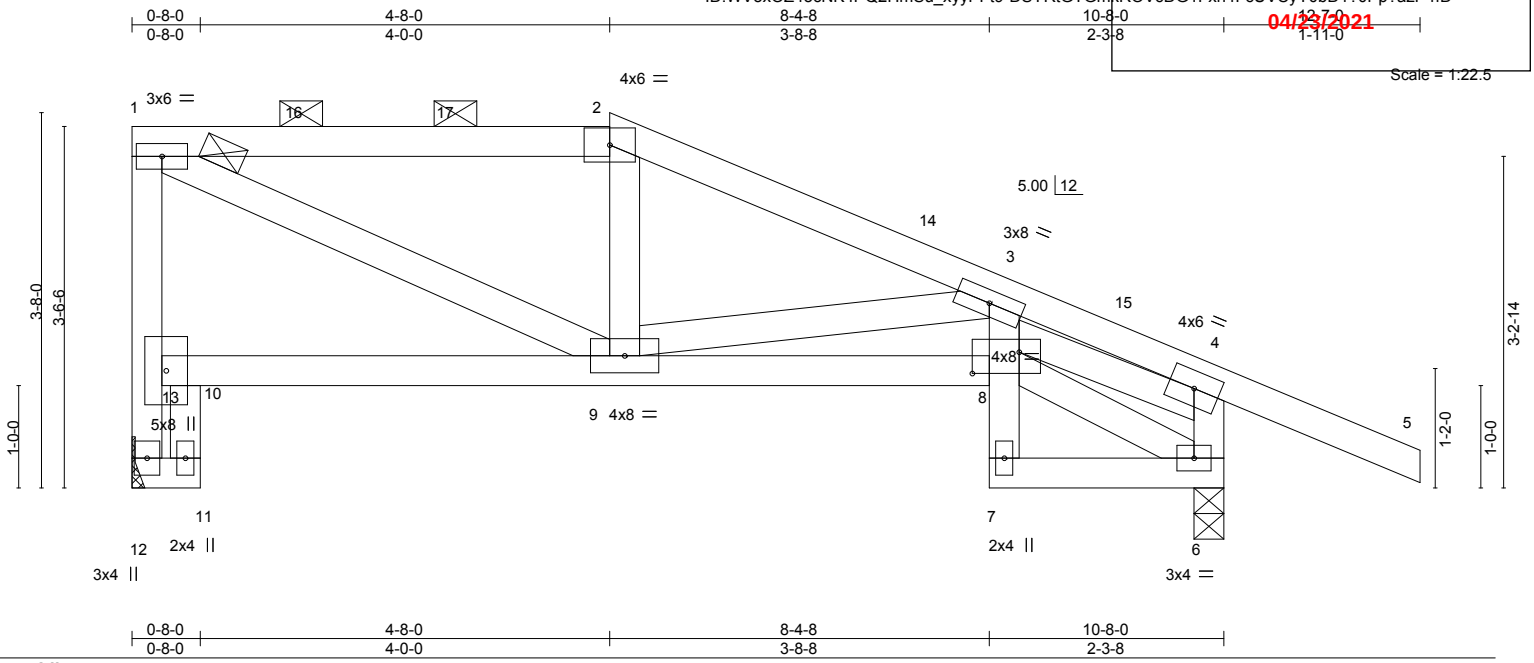

Plate Offsets (X,Y)-- [8:0-5-8,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.02	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.04	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 51 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, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 12=Mechanical, 6=0-3-8
Max Horz 12=-138(LC 8)
Max Uplift 12=-83(LC 8), 6=-104(LC 13)
Max Grav 12=453(LC 26), 6=626(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-419/106, 1-13=-405/180, 2-3=-627/179, 3-4=-808/148, 4-6=-542/228, 1-2=-542/192
BOT CHORD 10-13=-122/267, 9-10=-122/267, 8-9=-118/869
WEBS 1-9=-228/544, 3-9=-334/182, 10-11=-177/262, 4-8=-130/745

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-8-0, Exterior(2R) 4-8-0 to 7-8-0, Interior(1) 7-8-0 to 12-7-0 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 83 lb uplift at joint 12 and 104 lb uplift at joint 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.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732365
2742340	D4	Roof Special	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:38:43 2021 Page 1
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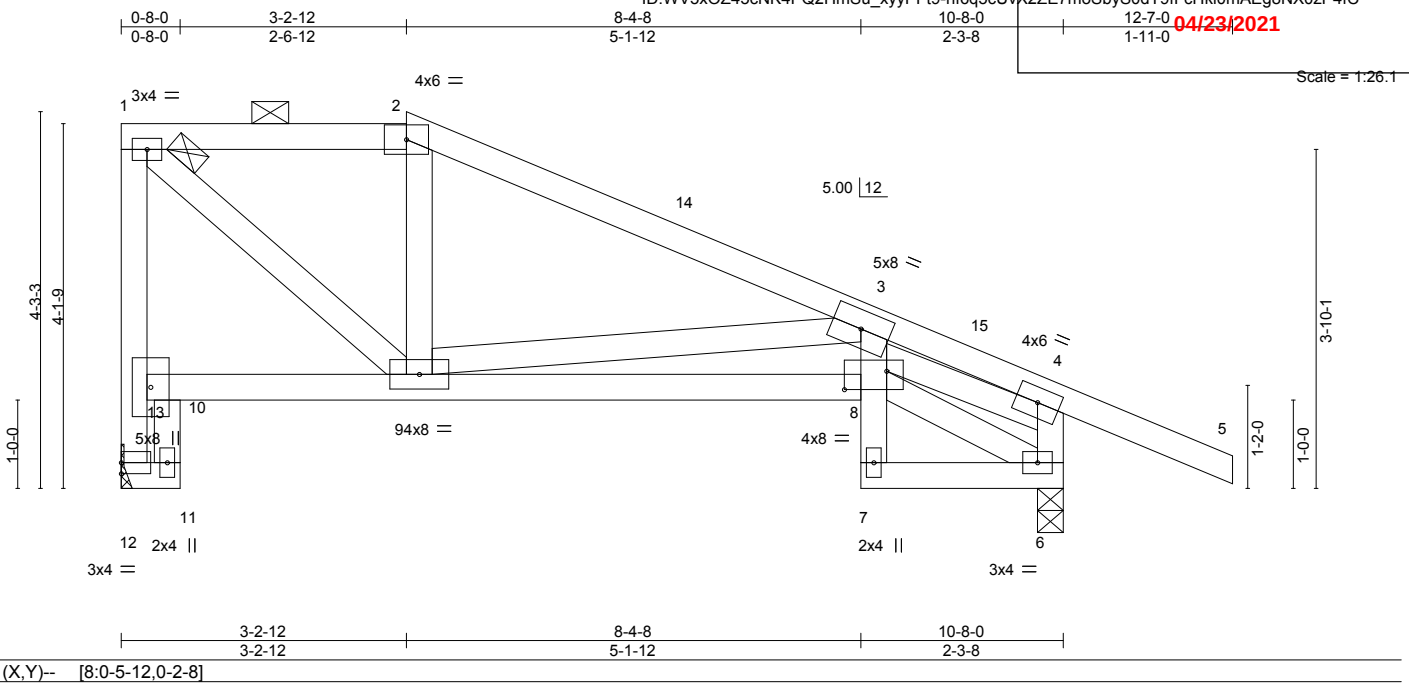

Plate Offsets (X,Y)-- [8:0-5-12,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.03	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.06	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.04	6	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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 12=Mechanical, 6=0-3-8
Max Horz 12=-162(LC 8)
Max Uplift 12=-79(LC 8), 6=-108(LC 13)
Max Grav 12=453(LC 26), 6=626(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-431/109, 1-13=-433/162, 2-3=-489/127, 3-4=-826/123, 4-6=-533/211, 1-2=-391/152
BOT CHORD 10-13=-158/295, 9-10=-158/295, 8-9=-150/997
WEBS 1-9=-196/513, 3-9=-616/280, 10-11=-204/318, 4-8=-127/778

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-2-12, Exterior(2R) 3-2-12 to 6-2-12, Interior(1) 6-2-12 to 12-7-0 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 12 and 108 lb uplift at joint 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.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E1	Roof Special	1	1	Job Reference (optional)

I45732366

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:39:48 2021 Page 1
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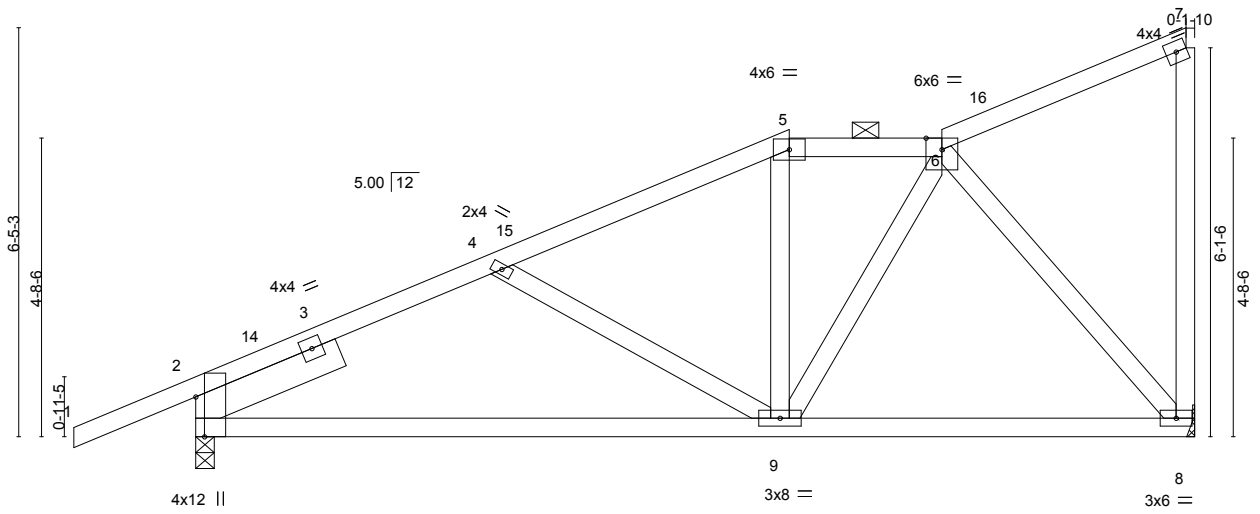
-1-11-0 | 4-9-12 | 9-4-0 | 11-8-13 | 15-8-8
1-11-0 | 4-9-12 | 4-6-4 | 2-4-13 | 3-11-11

Scale = 1:36.2



9-4-0 | 15-8-8
9-4-0 | 6-4-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.10	9-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.20	9-12	>946	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 73 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=247(LC 11)
Max Uplift 8=-147(LC 12), 2=-143(LC 12)
Max Grav 8=692(LC 1), 2=843(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-961/181, 4-5=-728/139, 5-6=-621/151
BOT CHORD 2-9=-356/848, 8-9=-176/451
WEBS 4-9=-261/151, 6-9=-105/344, 6-8=-675/178

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 9-4-0, Exterior(2E) 9-4-0 to 11-8-13, Interior(1) 11-8-13 to 15-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 147 lb uplift at joint 8 and 143 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E2	Roof Special	1	1	Job Reference (optional)

I45732367

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LINCOLN, NEBRASKA
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 07:39:50 2021 Page 1
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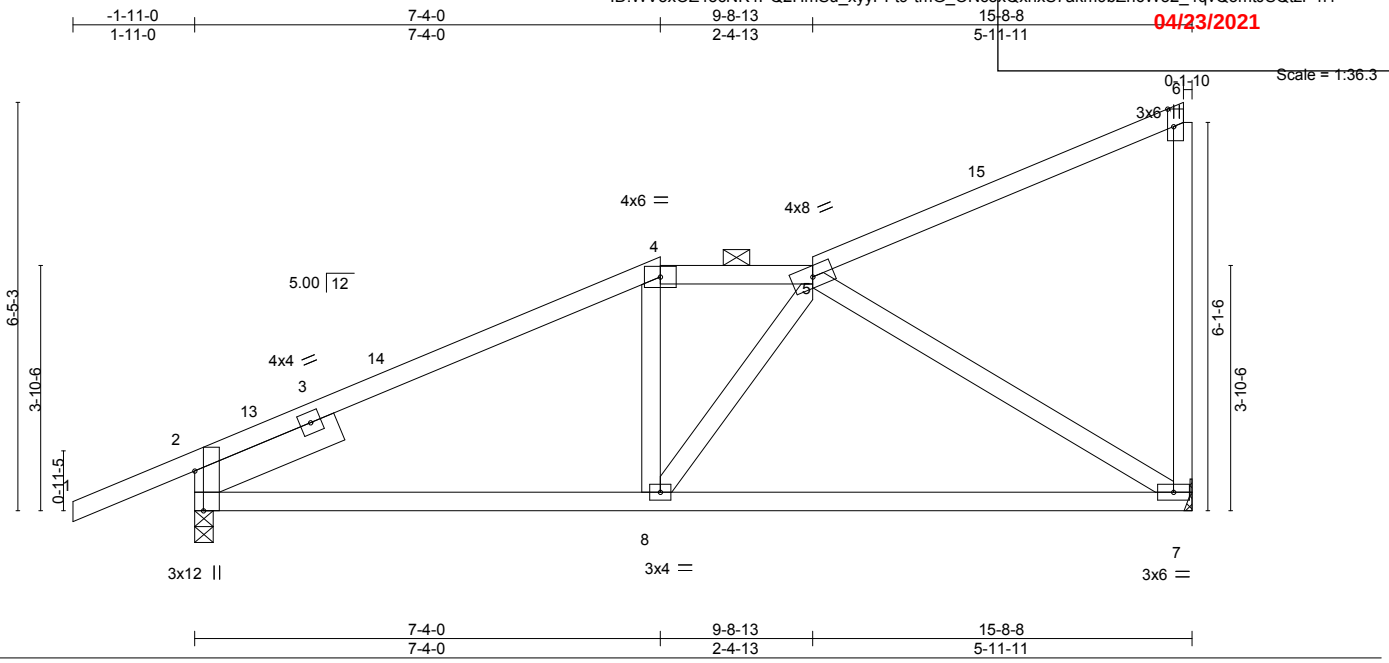


Plate Offsets (X,Y)-- [2:0-7-8,Edge], [6:0-3-5,Edge]

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	0.38	Vert(LL)	-0.13	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.26	7-8	>713	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 67 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=226(LC 12)
Max Uplift 7=-168(LC 12), 2=-122(LC 12)
Max Grav 7=692(LC 1), 2=843(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-923/263, 4-5=-789/125
BOT CHORD 2-8=-213/791, 7-8=-186/710
WEBS 5-7=-806/217

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 7-4-0, Exterior(2E) 7-4-0 to 9-8-13, Interior(1) 9-8-13 to 15-6-12 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 168 lb uplift at joint 7 and 122 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E3	ROOF SPECIAL	1	1	Job Reference (optional)

I45732368

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:38:53 2021 Page 1
ID:WV5xOZ45cNK4PQ2HmSu_xyyPFt9-p9Okp2e2T1BOAmHysBB3fCBkBsfNIt45DBoZVmzP4f?

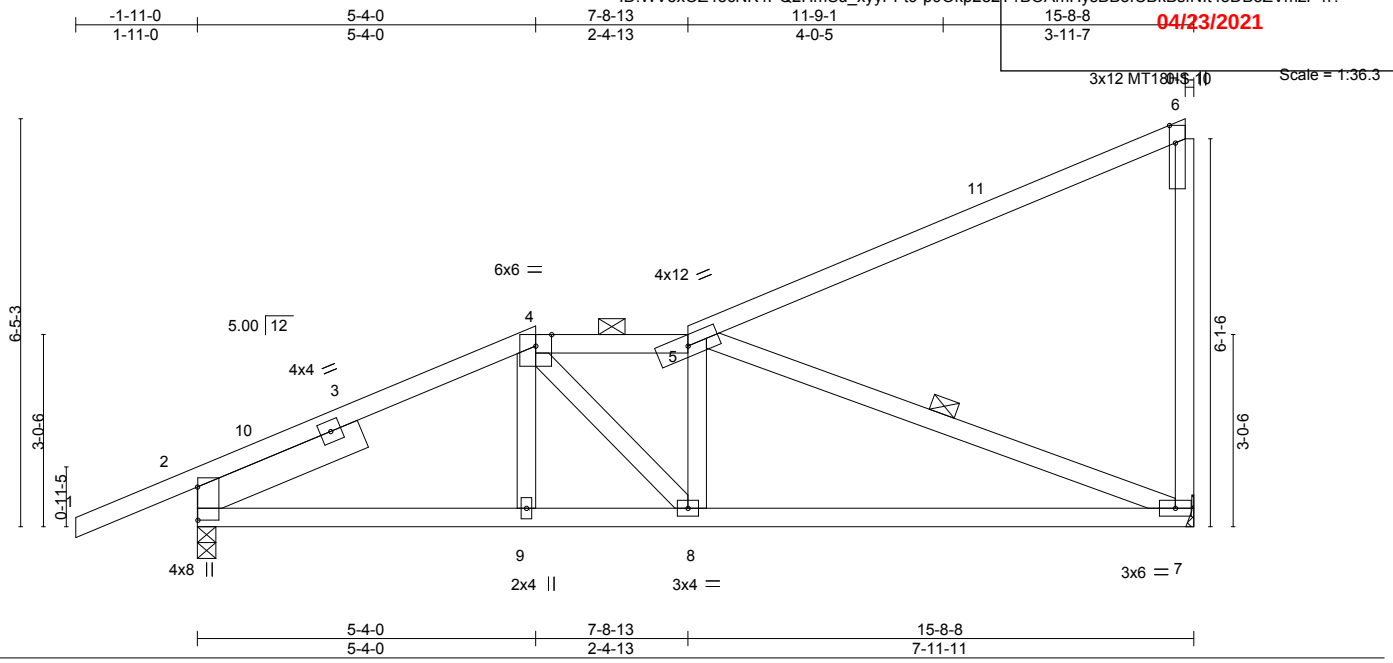


Plate Offsets (X,Y)-- [2:0-6-4,0-0-1], [6:0-3-5,Edge]

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	0.85	Vert(LL)	-0.11	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.23	7-8	>830	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 70 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-10-5

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-10 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-7

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=229(LC 12)
Max Uplift 7=-167(LC 12), 2=-122(LC 12)
Max Grav 7=689(LC 1), 2=843(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1066/107, 4-5=-1059/115, 6-7=-251/123
BOT CHORD 2-9=-244/848, 8-9=-245/845, 7-8=-233/1053
WEBS 5-7=-1081/236, 4-8=0/317

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 5-4-0, Exterior(2E) 5-4-0 to 7-8-13, Interior(1) 7-8-13 to 15-6-3 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 167 lb uplift at joint 7 and 122 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

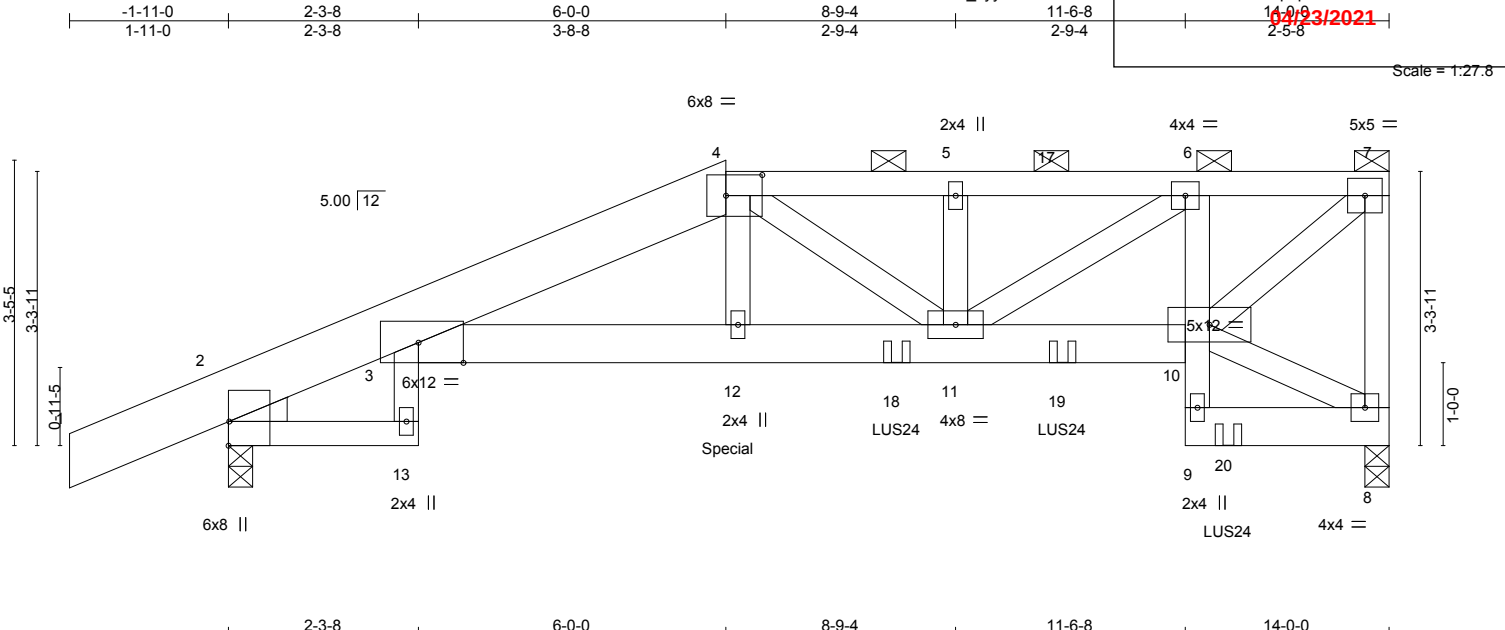
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E4	Half Hip Girder	1	1	Job Reference (optional)

I45732369

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:10 2021 Page 1
ID:WV5xOZ45cNK4PQ2HmSu_xyyPFt9-IXWUEkfJ?fS6Q4RLzcDXkdH9qfLpmm5NhVHfYfzP4ez



2-3-8	6-0-0	8-9-4	11-6-8	14-0-0
2-3-8	3-8-8	2-9-4	2-9-4	2-5-8

Plate Offsets (X,Y)-- [2:Edge,0-0-2], [3:0-6-8,Edge], [4:0-5-4,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.10	3-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.18	3-12	>924	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.15	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 83 lb	FT = 20%

LUMBER-
TOP CHORD 2x8 SP 2400F 2.0E *Except*
4-7: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-10: 2x6 SPF 2100F 1.8E, 8-9: 2x6 SPF No.2
WEBS 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, and 2-0-0 oc purlins (3-9-3 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=125(LC 28)
Max Uplift 8=-333(LC 5), 2=-291(LC 8)
Max Grav 8=1318(LC 1), 2=1237(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-15=-466/104, 3-4=-2746/695, 4-5=-2328/595, 5-6=-2328/595, 6-7=-1403/360, 7-8=-1234/332
BOT CHORD 3-12=-711/2607, 11-12=-725/2667, 10-11=-417/1481, 6-10=-754/216
WEBS 4-12=-189/733, 4-11=-413/140, 6-11=-292/1026, 7-10=-482/1806

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 333 lb uplift at joint 8 and 291 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 8-0-12 from the left end to 12-0-12 to connect truss(es) to front face of bottom chord.
9) Fill all nail holes where hanger is in contact with lumber.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 527 lb down and 205 lb up at 6-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

April 20,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732369
2742340	E4	Half Hip Girder	1	1	Job Reference (optional)	

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-4=-70, 4-7=-70, 13-14=-20, 3-10=-20, 8-9=-20
   Concentrated Loads (lb)
   Vert: 12=-527(F) 18=-216(F) 19=-216(F) 20=-216(F)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E5	Half Hip	1	1	Job Reference (optional)

I45732370

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:01 2021 Page 1
ID:WV5xOZ45cNK4PQ2HmSu_xyyPFt9-Dk4tS4gxmyaz1E0XXJkmGrpGp3f8VGwXv90D45zP4ey

04/23/2021

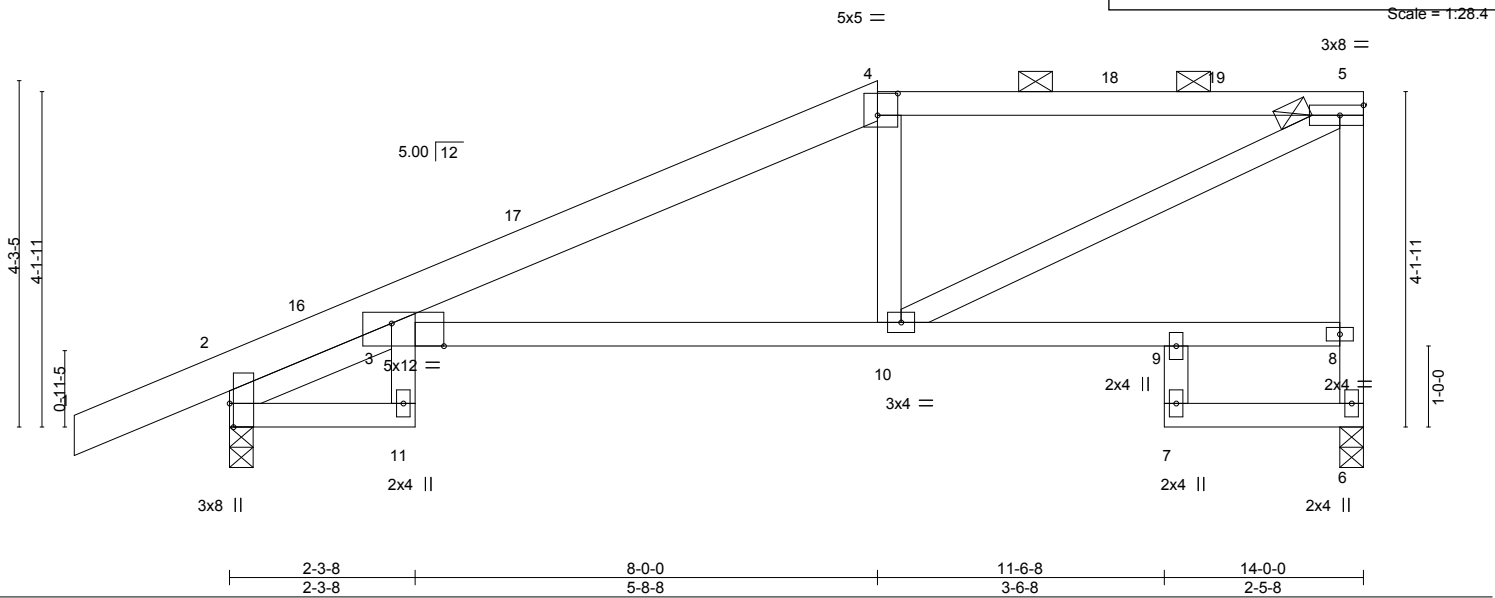


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [3:0-7-12,Edge], [4:0-3-0,0-3-4]

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	0.82	Vert(LL)	-0.19	3-10	>859	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.37	3-10	>452	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.23	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 63 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except* 4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -t 2-2-11

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-11-11 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=159(LC 11)
Max Uplift 6=-104(LC 9), 2=-137(LC 12)
Max Grav 6=614(LC 1), 2=767(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-13=-765/259, 3-4=-912/169, 4-5=-830/206, 6-8=-587/148, 5-8=-570/160
BOT CHORD 3-10=-292/846
WEBS 4-10=-268/162, 5-10=-255/872

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 8-0-0, Exterior(2R) 8-0-0 to 12-2-15, Interior(1) 12-2-15 to 13-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 6 and 137 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E6	Half Hip	1	1	Job Reference (optional)

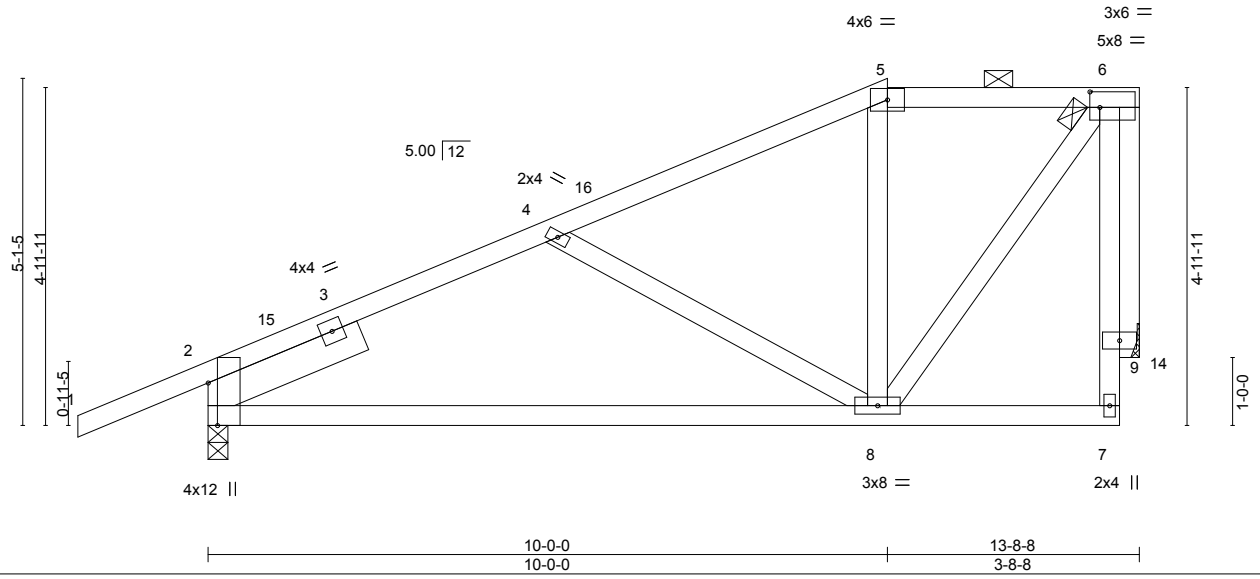
I45732371

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 07:40:01 2021 Page 1
ID:WV5xOZ45cNK4PQ2HmSu_xyyPFt9-Dk4tS4gxmyaz1E0XXJkmGrpPr3g_VHMXv90D45zP4ey

-1-11-0 | 5-1-12 | 10-0-0 | 13-8-8
1-11-0 | 5-1-12 | 4-10-4 | 3-8-8

Scale = 1:33.9



10-0-0 | 13-8-8
10-0-0 | 3-8-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.15	8-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.29	8-12	>565	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.02	14	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 65 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 2=0-3-8, 14=Mechanical
Max Horz 2=159(LC 12)
Max Uplift 2=-114(LC 12), 14=-87(LC 12)
Max Grav 2=757(LC 1), 14=571(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-714/144, 4-5=-484/65, 5-6=-393/98
BOT CHORD 2-8=-253/692
WEBS 4-8=-350/163, 6-8=-143/575, 6-14=-574/142

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 10-0-0, Exterior(2E) 10-0-0 to 13-3-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 2 and 87 lb uplift at joint 14.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E7	Roof Special	1	1	Job Reference (optional)

I45732372

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:07:02 2021 Page 1
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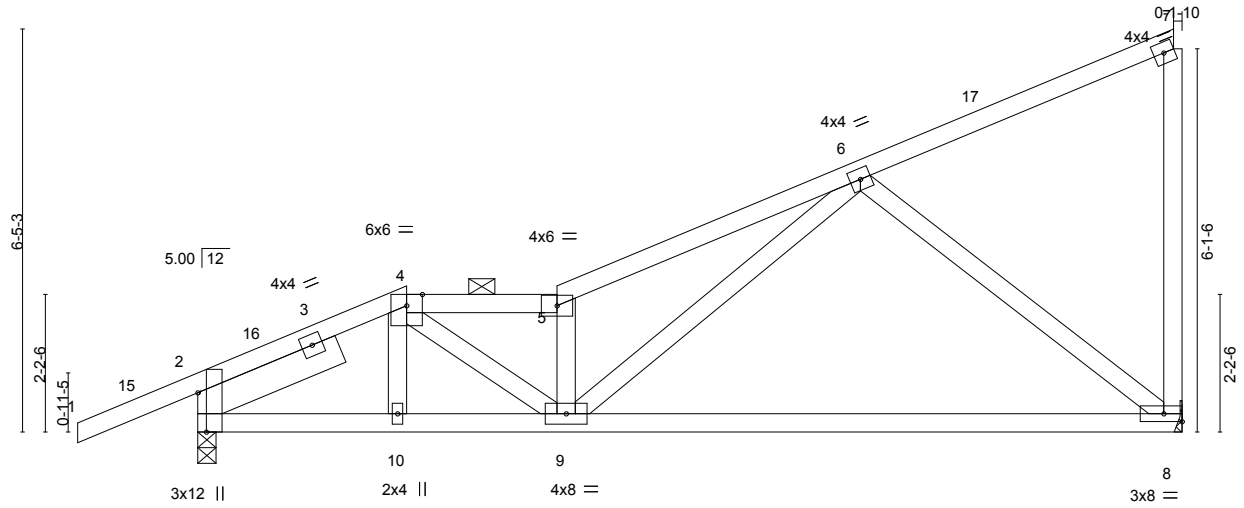
-1-11-0 / 1-11-0 | 3-4-0 / 3-4-0 | 5-8-13 / 2-4-13 | 10-6-14 / 4-10-2 | 15-8-8 / 5-1-10

Scale = 1:36.8



3-4-0 / 3-4-0 | 5-8-13 / 2-4-13 | 15-8-8 / 9-11-11

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.23	8-9	>822	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.46	8-9	>402	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.02	8	n/a	n/a		
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
SLIDER Left 2x6 SPF No.2 -t 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-10-12 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=247(LC 11)
Max Uplift 8=-147(LC 12), 2=-143(LC 12)
Max Grav 8=692(LC 1), 2=843(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-931/156, 4-5=-1370/192, 5-6=-1480/238
BOT CHORD 2-10=-327/823, 9-10=-325/830, 8-9=-201/593
WEBS 4-9=-65/681, 5-9=-825/180, 6-9=-124/945, 6-8=-733/218

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-4-0, Exterior(2E) 3-4-0 to 5-8-13, Interior(1) 5-8-13 to 15-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 147 lb uplift at joint 8 and 143 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E8	Roof Special Girder	1	1	Job Reference (optional)

I45732373

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:47:03 2021 Page 1
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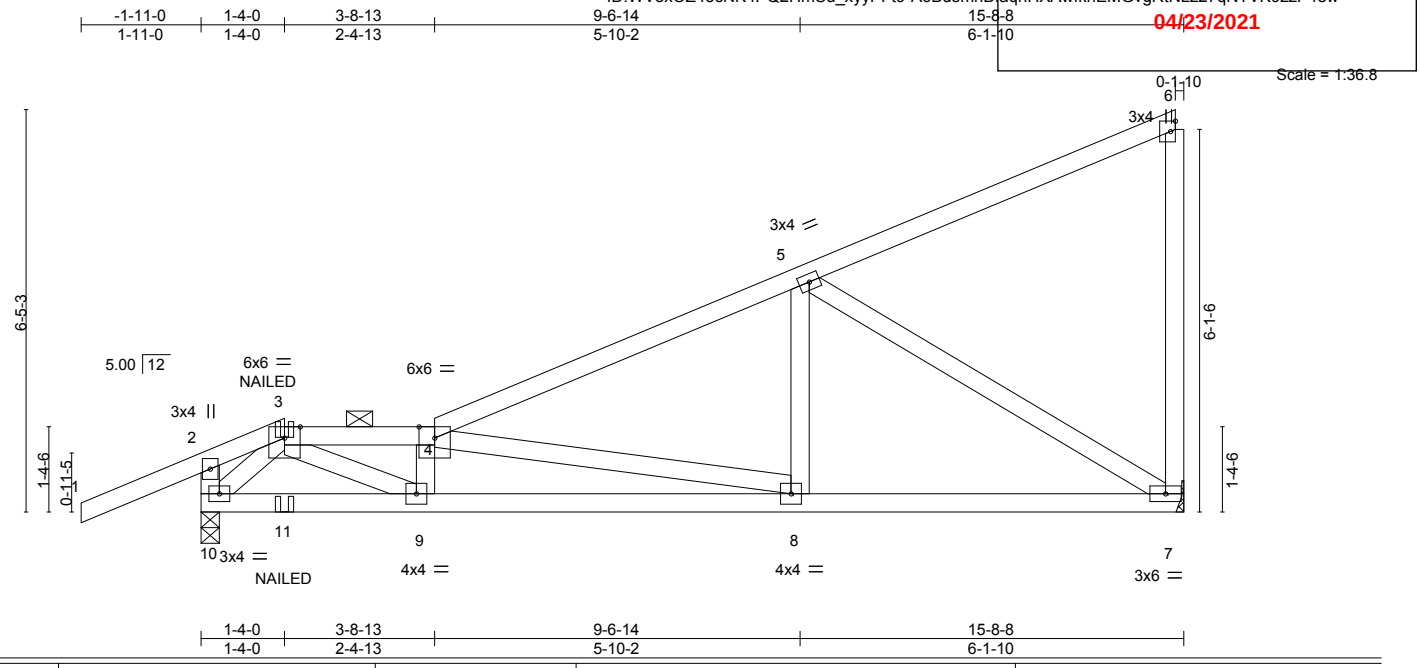

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.06	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.12	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 70 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 5-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-13 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 10=0-3-8
Max Horz 10=253(LC 25)
Max Uplift 7=-147(LC 8), 10=-175(LC 8)
Max Grav 7=676(LC 1), 10=745(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-1475/242, 4-5=-900/129
BOT CHORD 9-10=-221/461, 8-9=-330/1533, 7-8=-140/768
WEBS 3-9=-165/1134, 4-9=-468/122, 4-8=-780/194, 5-8=0/380, 5-7=-882/223, 3-10=-728/100

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 147 lb uplift at joint 7 and 175 lb uplift at joint 10.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 3=55(F) 11=56(F)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732374
2742340	E9	HALF HIP	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:47:07 2021 Page 1
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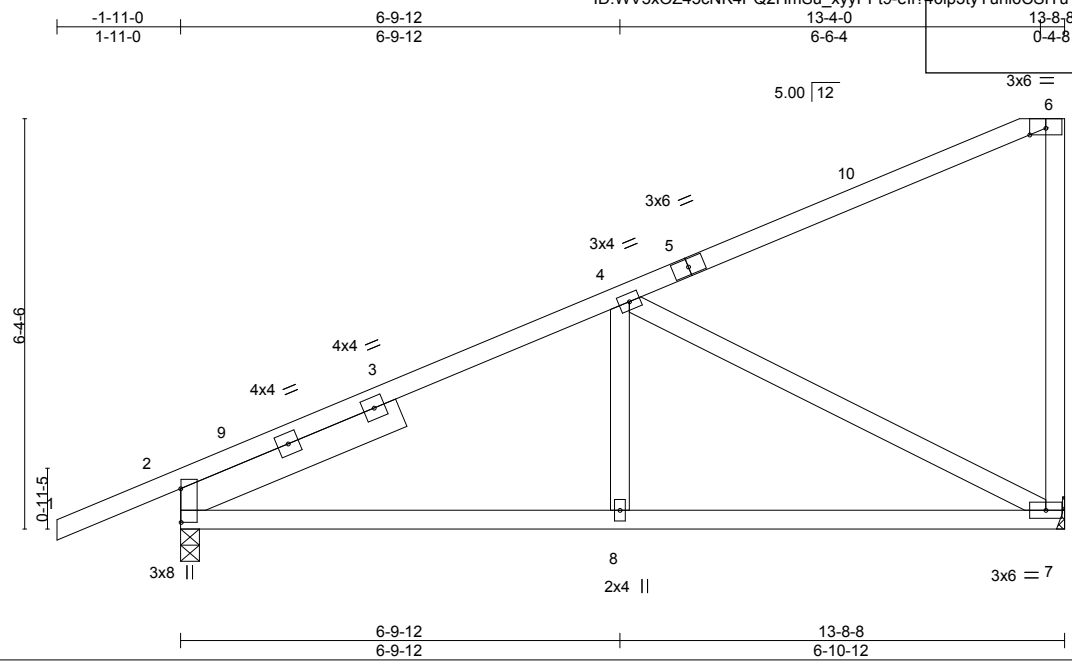

Plate Offsets (X,Y)-- [2:0-6-4,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.05	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.11	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 60 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 3-8-14

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) 7=Mechanical, 2=0-3-8
Max Horz 2=233(LC 12)
Max Uplift 7=-160(LC 12), 2=-98(LC 12)
Max Grav 7=601(LC 1), 2=754(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-868/56
BOT CHORD 2-8=-195/677, 7-8=-195/677
WEBS 4-8=0/309, 4-7=-739/214

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 13-6-12 zone; cantilever left and right exposed ; end vertical left 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 160 lb uplift at joint 7 and 98 lb uplift at joint 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.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	J45732375
2742340	E10	Roof Special Girder	1	2	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL ONLY

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:38:47 2021 Page 1
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04/23/2021

-1-11-0 / 1-11-0 | 3-11-1 / 3-11-1 | 5-7-2 / 1-8-1 | 11-2-4 / 5-7-2 | 13-7-1 / 2-4-13 | 15-8-8 / 2-1-7

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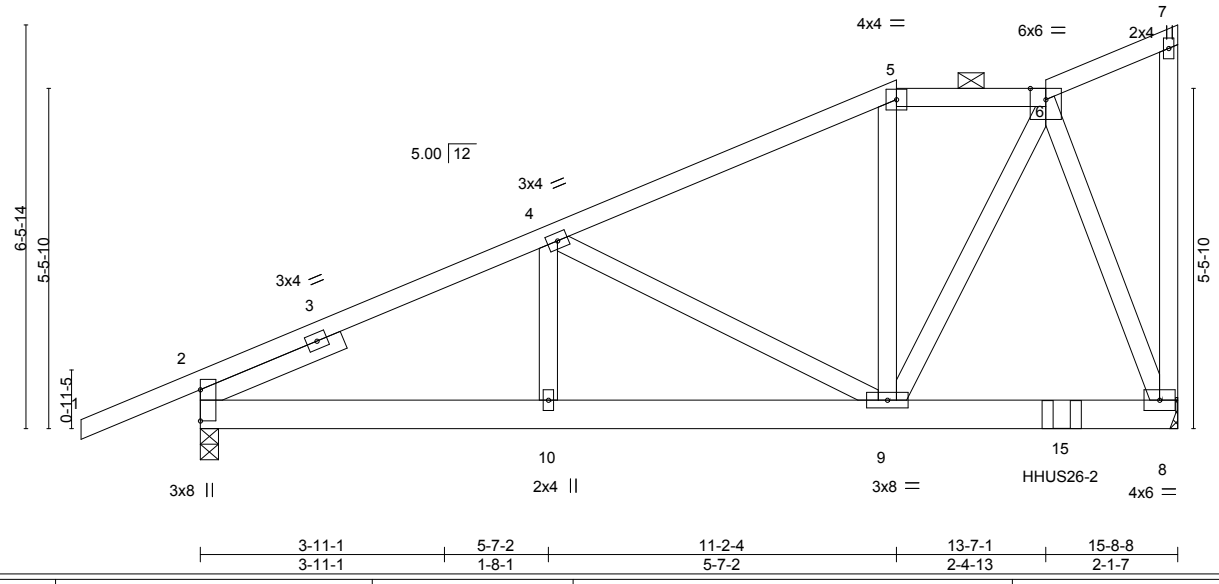

3-11-1 / 3-11-1 | 5-7-2 / 1-8-1 | 11-2-4 / 5-7-2 | 13-7-1 / 2-4-13 | 15-8-8 / 2-1-7

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01	10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.05	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.12	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 173 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=244(LC 24)
Max Uplift 2=-49(LC 8)
Max Grav 8=1624(LC 1), 2=958(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1103/0, 4-5=-916/0, 5-6=-776/0
BOT CHORD 2-10=-36/1060, 9-10=-36/1060, 8-9=0/375
WEBS 4-9=-320/283, 6-8=-999/0, 6-9=0/906

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
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 49 lb uplift at joint 2.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 13-10-2 from the left end to connect truss(es) to back face of bottom chord.
11) 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: 1-5=-70, 5-6=-70, 6-7=-70, 8-11=-20

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E10	Roof Special Girder	1	2	Job Reference (optional)

I45732375

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:28:47 2021 Page 2
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LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 15=-1048(B)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E11	Half Hip	1	1	Job Reference (optional)

I45732376

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 14:48:43 2021 Page 1
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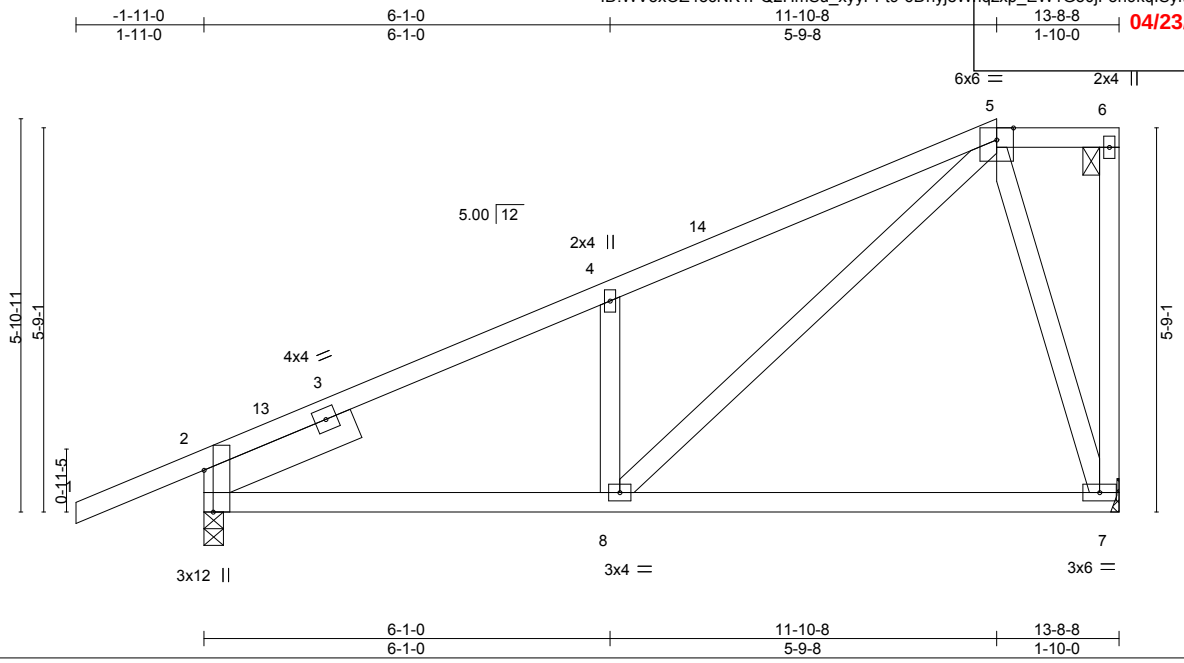

Plate Offsets (X,Y)-- [2:0-7-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.09	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.18	7-8	>894	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 64 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=203(LC 12)
Max Uplift 7=-123(LC 12), 2=-108(LC 12)
Max Grav 7=601(LC 25), 2=754(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-798/177, 4-5=-826/180
BOT CHORD 2-8=-200/693
WEBS 4-8=-362/194, 5-7=-559/238, 5-8=-200/716

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 11-10-8, Exterior(2E) 11-10-8 to 13-6-12 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 7 and 108 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E12	Roof Special	1	1	Job Reference (optional)

I45732377

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL ONLY
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 14 08:48:48 2021 Page 1
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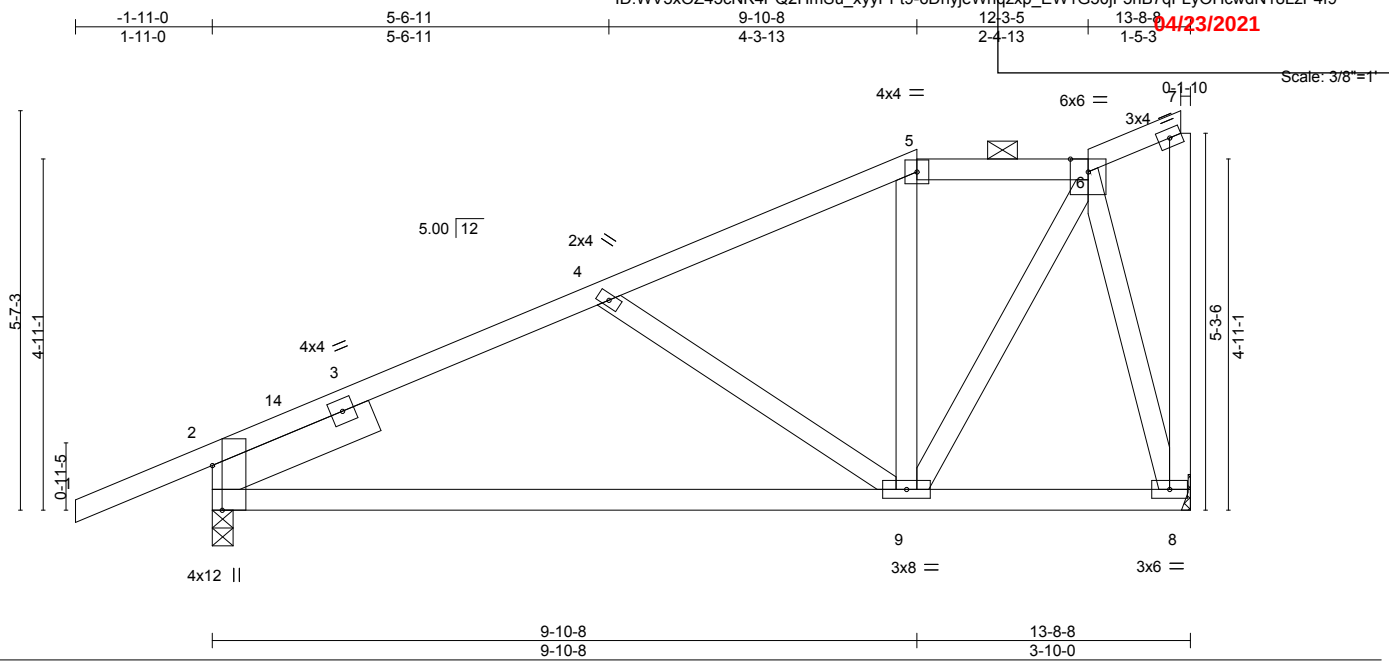

Plate Offsets (X,Y)-- [2:0-7-8,Edge], [7:0-0-1,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.14	9-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.28	9-12	>581	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 67 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=214(LC 11)
Max Uplift 8=-127(LC 12), 2=-131(LC 12)
Max Grav 8=601(LC 1), 2=754(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-680/155, 4-5=-478/118, 5-6=-390/131
BOT CHORD 2-9=-311/667
WEBS 4-9=-337/174, 6-9=-152/499, 6-8=-568/169

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 9-10-8, Exterior(2E) 9-10-8 to 12-3-5, Interior(1) 12-3-5 to 13-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 8 and 131 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732378
2742340	E13	Half Hip	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 14 09:49:31 2021 Page 1
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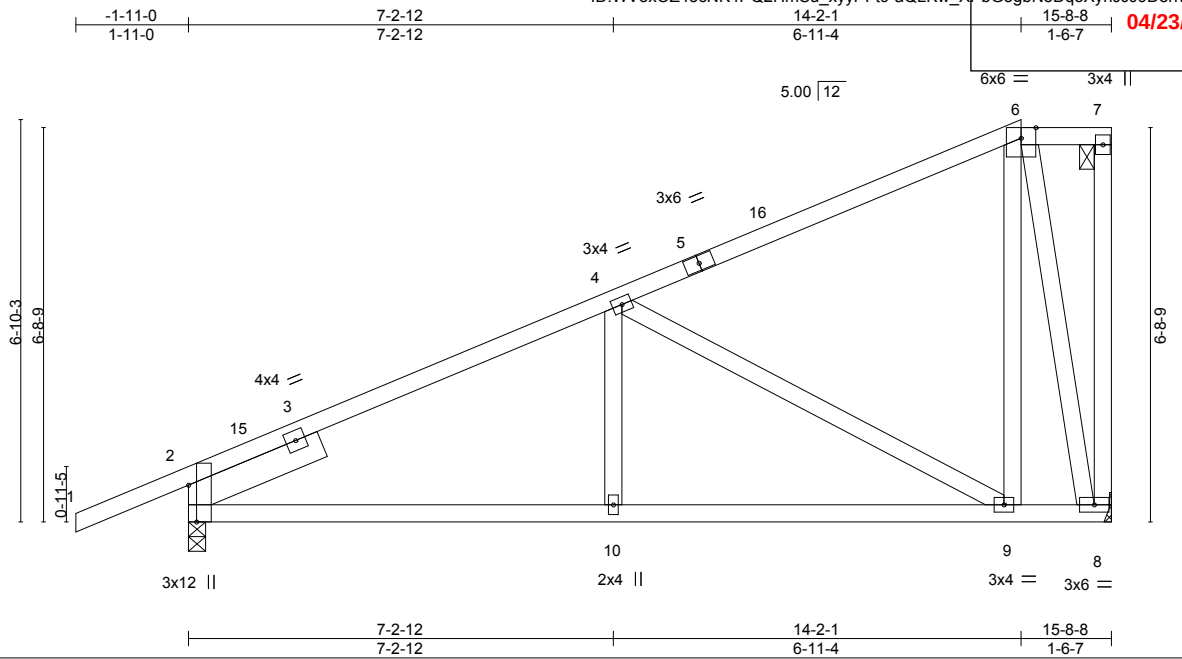

Plate Offsets (X,Y)-- [2:0-7-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.04	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.10	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 78 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=258(LC 11)
Max Uplift 8=-128(LC 12), 2=-140(LC 12)
Max Grav 8=692(LC 1), 2=843(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-816/154, 4-6=-294/109
BOT CHORD 2-10=-274/813, 9-10=-274/813
WEBS 4-10=0/278, 4-9=-721/212, 6-9=-73/463, 6-8=-793/237

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 14-2-1, Exterior(2E) 14-2-1 to 15-6-12 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 128 lb uplift at joint 8 and 140 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E14	Half Hip	1	1	Job Reference (optional)

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

I45732379

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 07:39:50 2021 Page 1
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04/23/2021

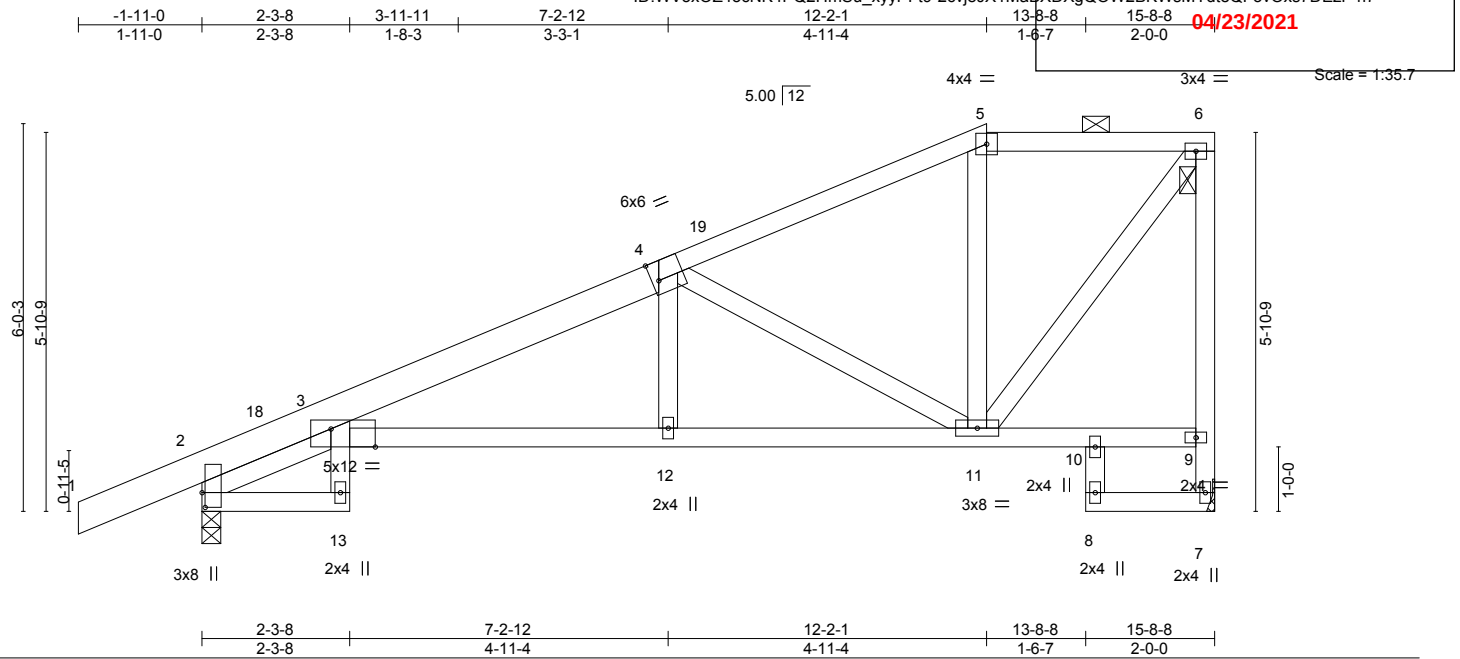

Plate Offsets (X,Y)-- [2:0-2-12,0-0-9], [3:0-8-4,Edge], [4:0-1-4,Edge]

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	0.95	Vert(LL)	-0.19	3-12	>994	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.35	3-12	>527	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.25	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 79 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 1-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -t 2-2-11

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=226(LC 11)
Max Uplift 7=-106(LC 9), 2=-141(LC 12)
Max Grav 7=692(LC 1), 2=843(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-15=-892/257, 3-4=-1235/200, 4-5=-537/119, 5-6=-427/129, 7-9=-669/172, 6-9=-651/167
BOT CHORD 3-12=-399/1163, 11-12=-395/1165
WEBS 4-11=-839/242, 6-11=-187/676

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 12-2-1, Exterior(2E) 12-2-1 to 15-6-12 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 106 lb uplift at joint 7 and 141 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732380
2742340	E15	Half Hip	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STATE OF MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:47:39 2021 Page 1
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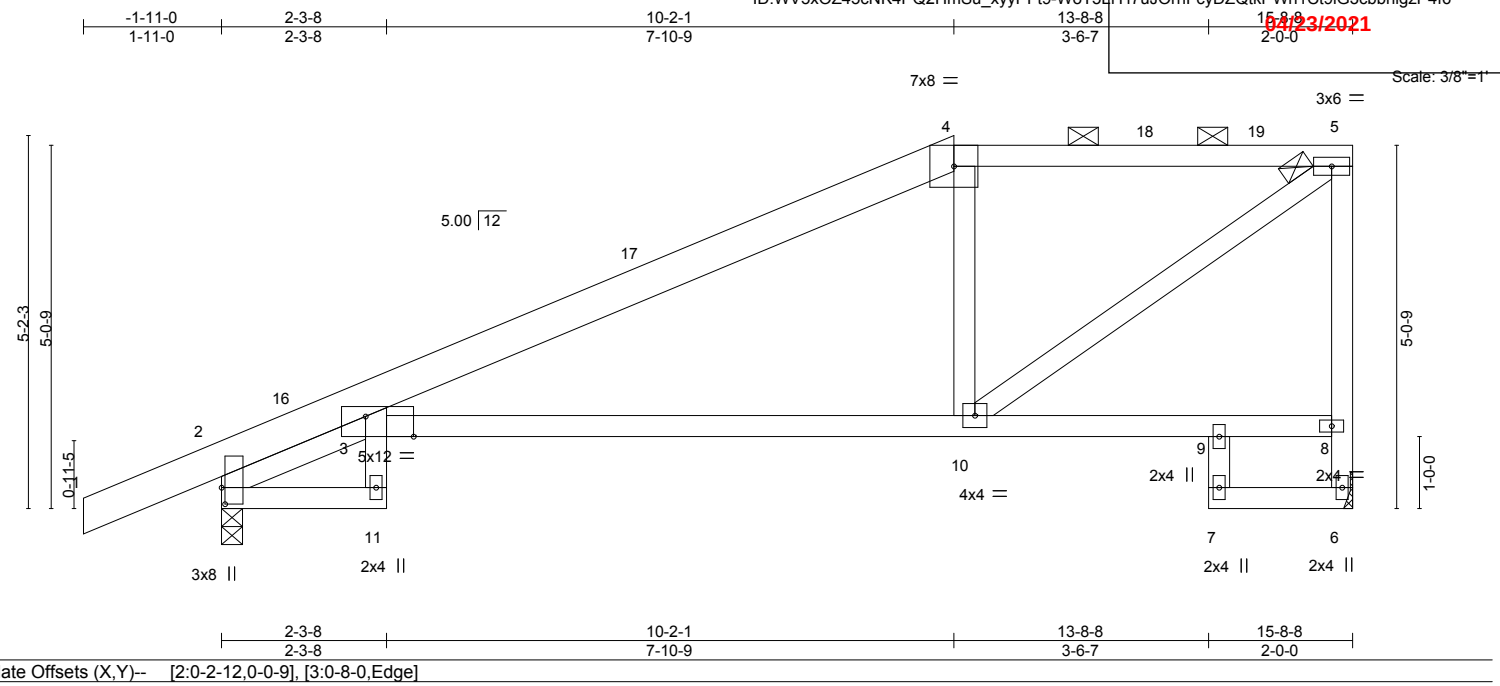

Plate Offsets (X,Y)-- [2:0-2-12,0-9-0], [3:0-8-0,Edge]

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	0.99	Vert(LL)	-0.34	3-10	>547	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.67	3-10	>279	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.35	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 71 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except* 4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -t 2-2-11

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-11-1 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=194(LC 11)
Max Uplift 6=-113(LC 9), 2=-149(LC 12)
Max Grav 6=692(LC 1), 2=843(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-13=-892/262, 3-4=-864/141, 4-5=-761/172, 6-8=-674/155, 5-8=-676/166
BOT CHORD 3-10=-258/777
WEBS 4-10=-357/189, 5-10=-237/921

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 10-2-1, Exterior(2R) 10-2-1 to 14-4-15, Interior(1) 14-4-15 to 15-6-12 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 6 and 149 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E16	Half Hip Girder	1	2	Job Reference (optional)

I45732381

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 17:39:53 2021 Page 1
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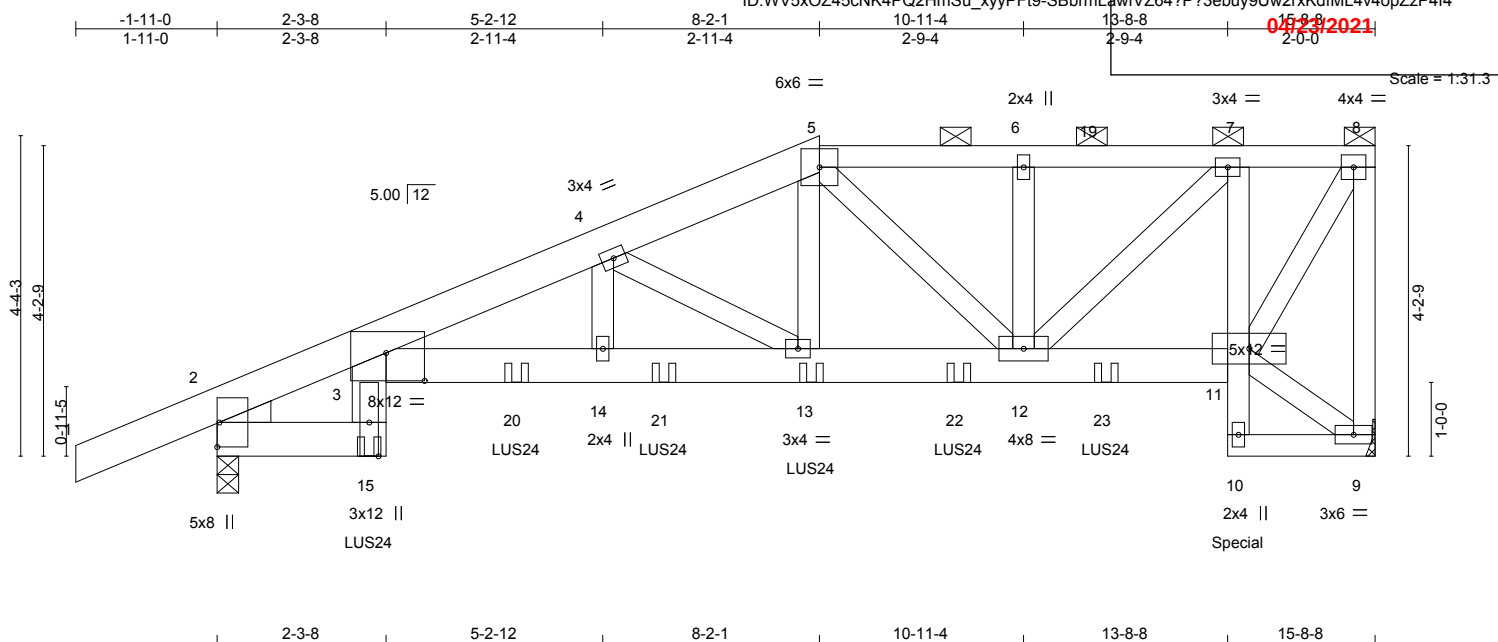

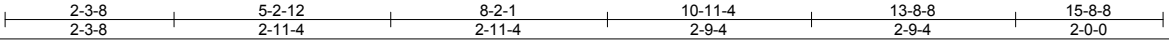

Plate Offsets (X,Y)-- [3:0-6-4,0-4-9]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.11	3-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.20	3-14	>939	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.16	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 192 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP 2400F 2.0E *Except*
5-8: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-15,3-15: 2x6 SPF No.2, 3-11: 2x6 SPF 2100F 1.8E
WEBS 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, and 2-0-0 oc purlins (6-0-0 max.): 5-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 9=Mechanical, 2=0-3-8
Max Horz 2=161(LC 7)
Max Uplift 9=-373(LC 5), 2=-394(LC 8)
Max Grav 9=1853(LC 1), 2=1920(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-17=-1162/216, 3-4=-4510/929, 4-5=-2994/632, 5-6=-2251/474, 6-7=-2251/474, 7-8=-1110/238, 8-9=-1802/387
BOT CHORD 3-15=-269/1160, 3-14=-908/4319, 13-14=-915/4344, 12-13=-578/2645, 11-12=-279/1163, 7-11=-1221/278
WEBS 4-14=-133/768, 4-13=-1889/431, 5-13=-289/1376, 5-12=-564/151, 7-12=-332/1530, 8-11=-443/2051

NOTES-
1) 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 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 373 lb uplift at joint 9 and 394 lb uplift at joint 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732381
2742340	E16	Half Hip Girder	1	2	Job Reference (optional)	

NOTES-

11) 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 2-0-12 from the left end to 4-0-12 to connect truss(es) to back face of bottom chord.
12) 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 6-0-12 from the left end to 12-0-12 to connect truss(es) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 330 lb down and 80 lb up at 13-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-5=-70, 5-8=-70, 15-16=-20, 3-11=-20, 9-10=-20
   Concentrated Loads (lb)
   Vert: 15=-318(B) 13=-316(B) 11=-330(B) 20=-316(B) 21=-316(B) 22=-321(B) 23=-321(B)

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E17	Roof Special	1	1	Job Reference (optional)

I45732382

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 14:55:54 2021 Page 1
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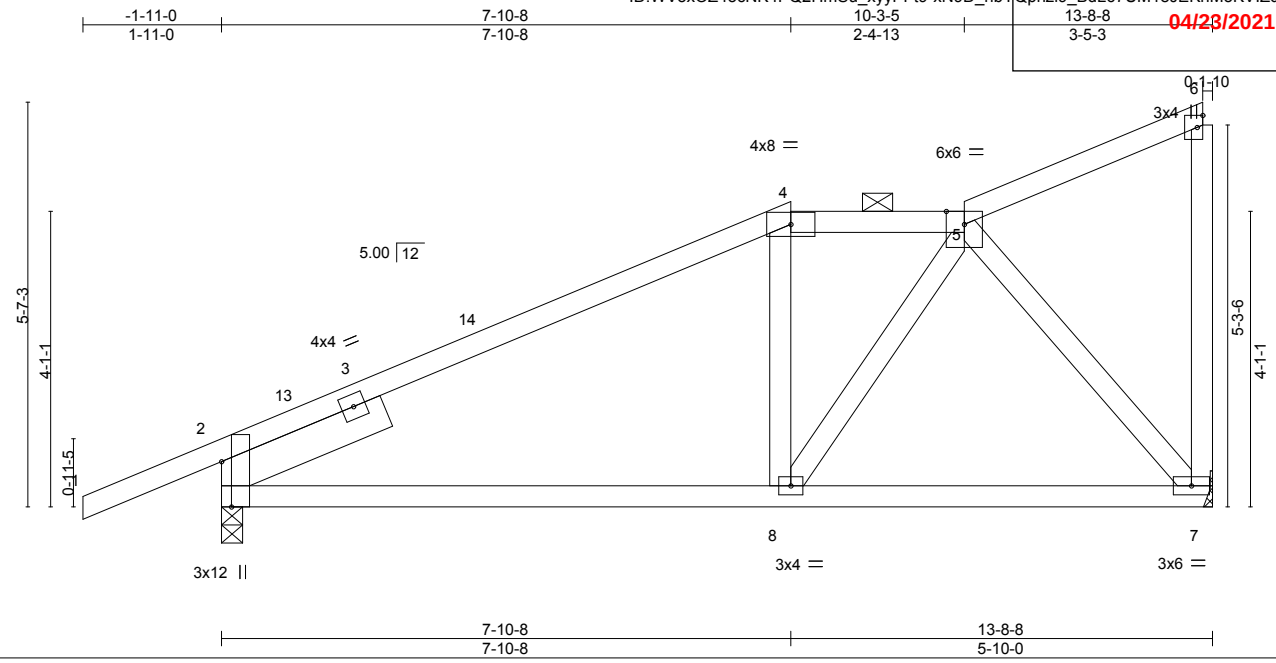

Plate Offsets (X,Y)-- [2:0-7-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.05	8-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.11	8-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 59 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 2=0-3-8, 7=Mechanical
Max Horz 2=214(LC 11)
Max Uplift 2=-131(LC 12), 7=-127(LC 12)
Max Grav 2=754(LC 1), 7=601(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-657/182, 4-5=-592/162
BOT CHORD 2-8=-259/587, 7-8=-176/390
WEBS 5-8=-163/367, 5-7=-587/191

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 7-10-8, Exterior(2E) 7-10-8 to 10-3-5, Interior(1) 10-3-5 to 13-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 131 lb uplift at joint 2 and 127 lb uplift at joint 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732383
2742340	E18	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:54:35 2021 Page 1
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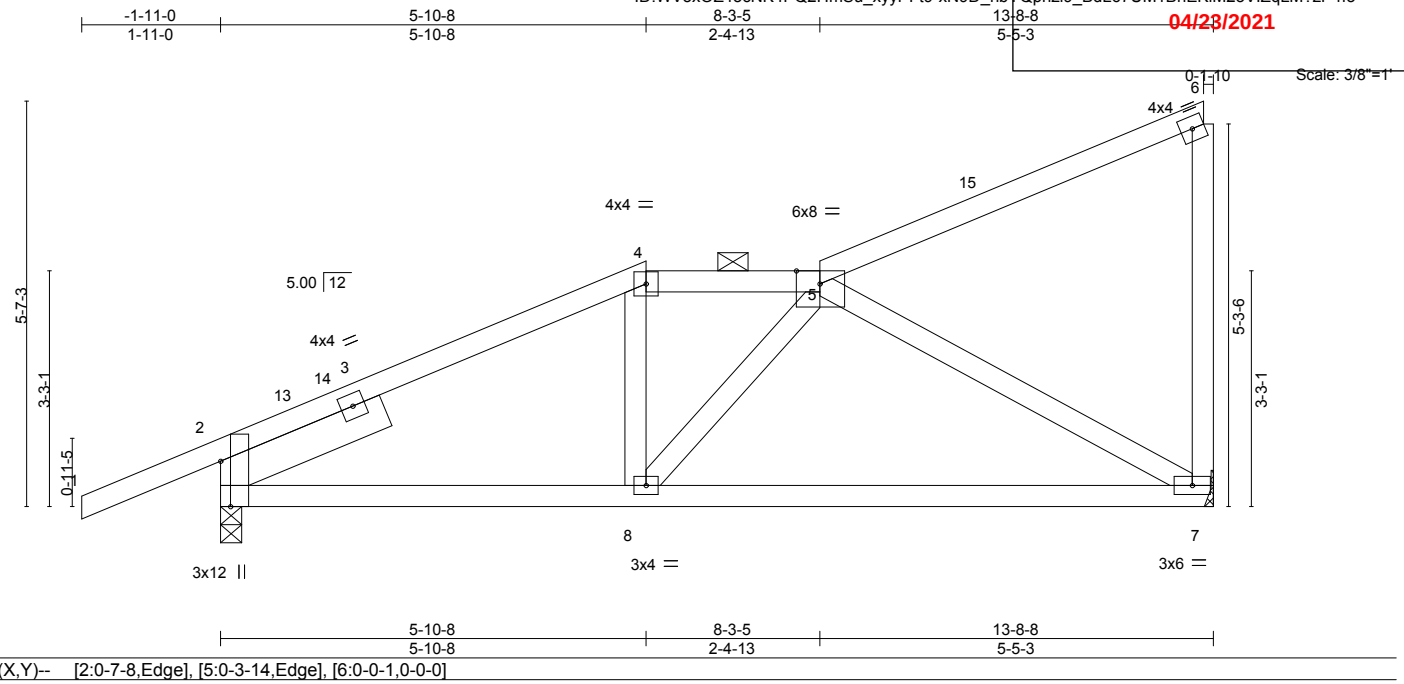


Plate Offsets (X,Y)-- [2:0-7-8,Edge], [5:0-3-14,Edge], [6:0-0-1,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.11	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.22	7-8	>755	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 59 lb	FT = 20%

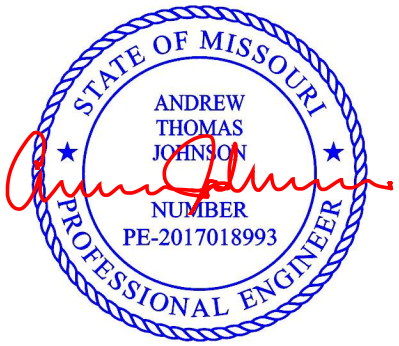
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=195(LC 12)
Max Uplift 7=-145(LC 12), 2=-112(LC 12)
Max Grav 7=601(LC 1), 2=754(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-796/232, 4-5=-683/129
BOT CHORD 2-8=-215/688, 7-8=-187/649
WEBS 5-7=-716/211

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 5-10-8, Exterior(2E) 5-10-8 to 8-3-5, Interior(1) 8-3-5 to 13-6-12 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 145 lb uplift at joint 7 and 112 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E19	ROOF SPECIAL	1	1	Job Reference (optional)

I45732384

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STATE OF MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:39:55 2021 Page 1
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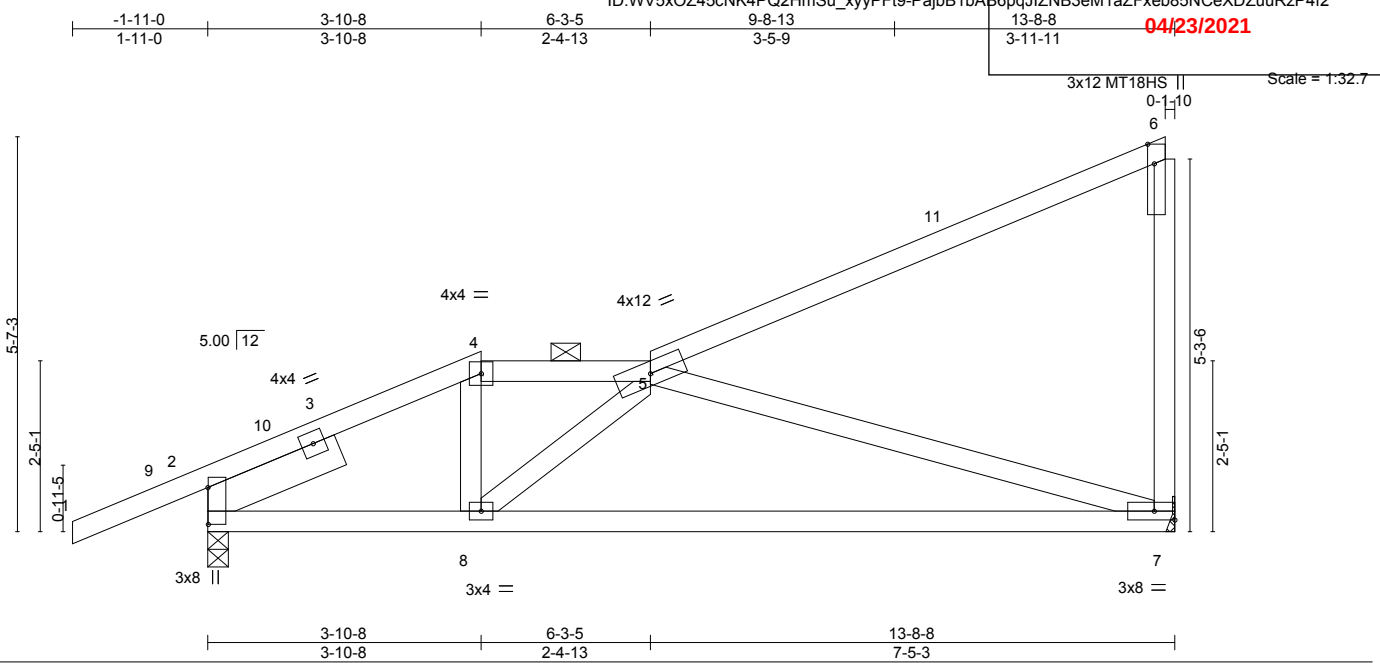

Plate Offsets (X,Y)-- [2:0-6-4,0-0-1], [6:0-3-5,Edge]

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	0.72	Vert(LL)	-0.27	7-8	>612	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.54	7-8	>302	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 58 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-0-13

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-2-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=198(LC 12)
Max Uplift 7=-144(LC 12), 2=-112(LC 12)
Max Grav 7=598(LC 1), 2=754(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-970/62, 4-5=-748/86
BOT CHORD 2-8=-200/771, 7-8=-250/955
WEBS 4-8=0/360, 5-8=-273/90, 5-7=-952/253

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-10-8, Exterior(2E) 3-10-8 to 6-3-5, Interior(1) 6-3-5 to 13-6-3 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 7 and 112 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E20	Roof Special Girder	1	1	Job Reference (optional)

I45732385

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:39:57 2021 Page 1
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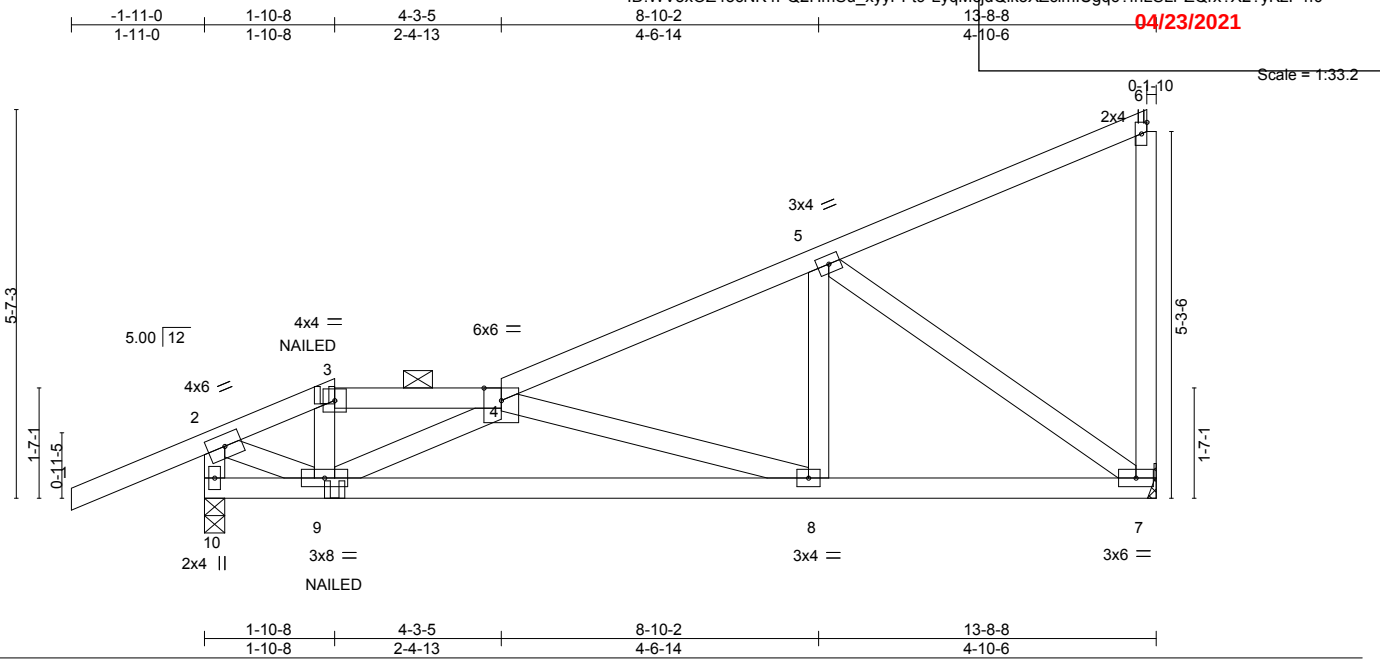

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.06	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.12	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 62 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 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 10=0-3-8
Max Horz 10=186(LC 8)
Max Uplift 7=-148(LC 8), 10=-147(LC 8)
Max Grav 7=584(LC 1), 10=699(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-598/80, 3-4=-509/82, 4-5=-703/49, 2-10=-722/129
BOT CHORD 8-9=-314/1124, 7-8=-148/598
WEBS 4-8=-548/173, 5-8=0/352, 5-7=-721/178, 2-9=-72/679, 4-9=-705/111

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 148 lb uplift at joint 7 and 147 lb uplift at joint 10.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 3=34(B) 9=35(B)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	E21	Half Hip	1	1	Job Reference (optional)

I45732386

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF VALLEY CENTER

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:58:31 2021 Page 1
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04/23/2021

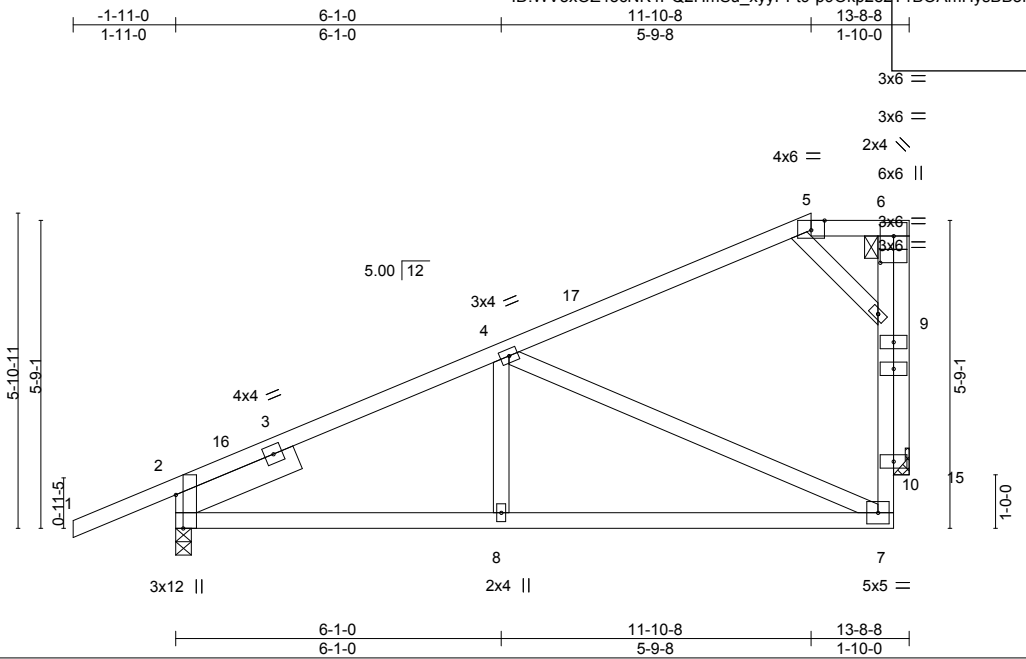

Plate Offsets (X,Y)-- [2:0-7-8,Edge], [5:0-3-0,Edge], [9:0-0-8,0-11-8]

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	0.30	Vert(LL)	-0.07	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.14	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.02	15	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 65 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
SLIDER	Left 2x6 SPF No.2 -t 2-6-0

BRACING-

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

REACTIONS. (size) 2=0-3-8, 15=Mechanical
Max Horz 2=203(LC 12)
Max Uplift 2=-108(LC 12), 15=-123(LC 12)
Max Grav 2=754(LC 1), 15=575(LC 25)

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

TOP CHORD	2-4=-700/157, 7-10=-46/331, 9-10=-47/334, 6-9=-204/639
BOT CHORD	2-8=-199/691, 7-8=-199/691
WEBS	4-8=0/271, 4-7=-631/183, 5-9=-400/207, 6-15=-576/161

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 11-10-8, Exterior(2E) 11-10-8 to 13-3-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 2 and 123 lb uplift at joint 15.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	F1	Common Girder	1	1	Job Reference (optional)

I45732387

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:03 2021 Page 1
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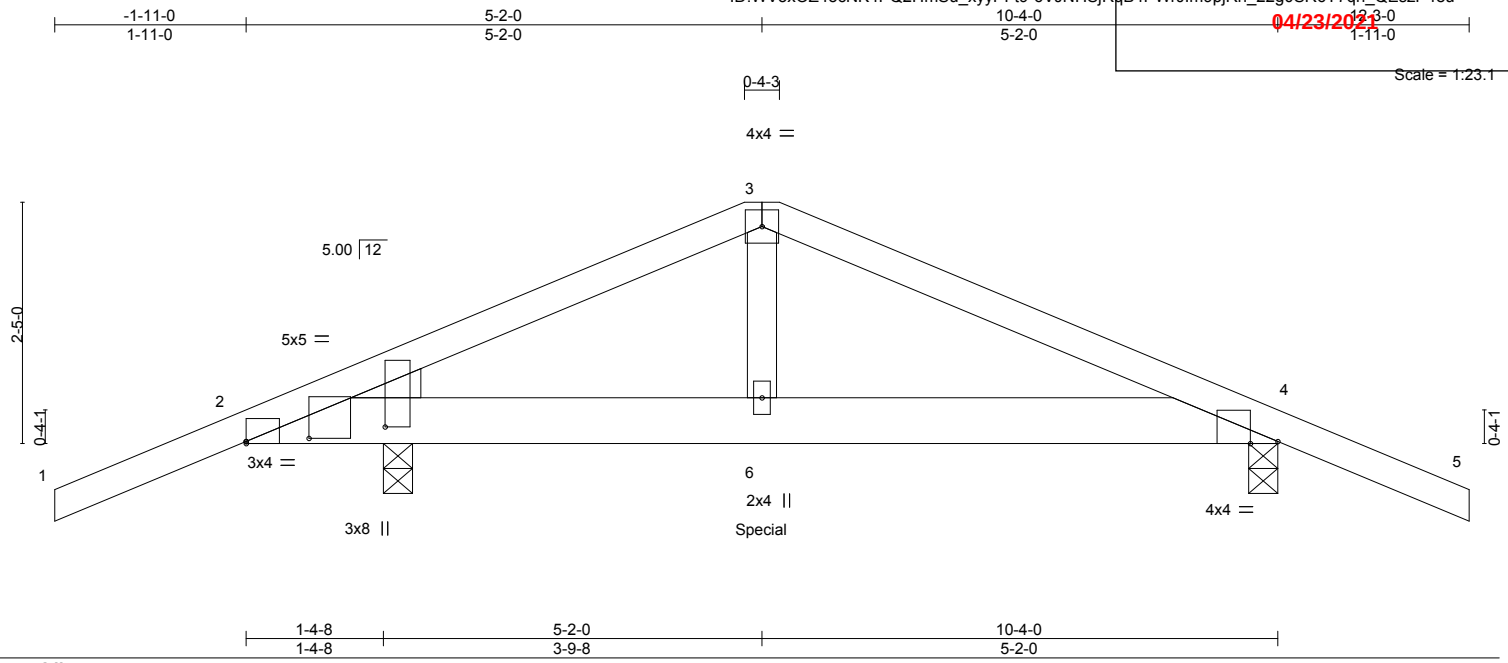

Plate Offsets (X,Y)-- [2:0-0-0,0-0-4], [2:0-1-12,1-4-11], [2:0-7-9,0-0-6], [4:0-3-5,Edge]

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	0.42	Vert(LL)	-0.04	6-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.06	6-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 39 lb	FT = 20%

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

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

REACTIONS. (size) 4=0-3-8, 2=0-3-8
Max Horz 4=-46(LC 30)
Max Uplift 4=-149(LC 9), 2=-194(LC 8)
Max Grav 4=703(LC 1), 2=996(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-841/189, 3-4=-846/174
BOT CHORD 2-6=-125/731, 4-6=-125/731
WEBS 3-6=-77/449

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 149 lb uplift at joint 4 and 194 lb uplift at joint 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 501 lb down and 162 lb up at 5-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 2-4=-20
Concentrated Loads (lb)
Vert: 6=-501(F)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732388
2742340	F2	Common	2	1	Job Reference (optional)	

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:10 2021 Page 1
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04/23/2021

-1-11-0 / 1-11-0 | 5-2-0 / 5-2-0 | 10-4-0 / 5-2-0 | 12-3-0 / 1-11-0

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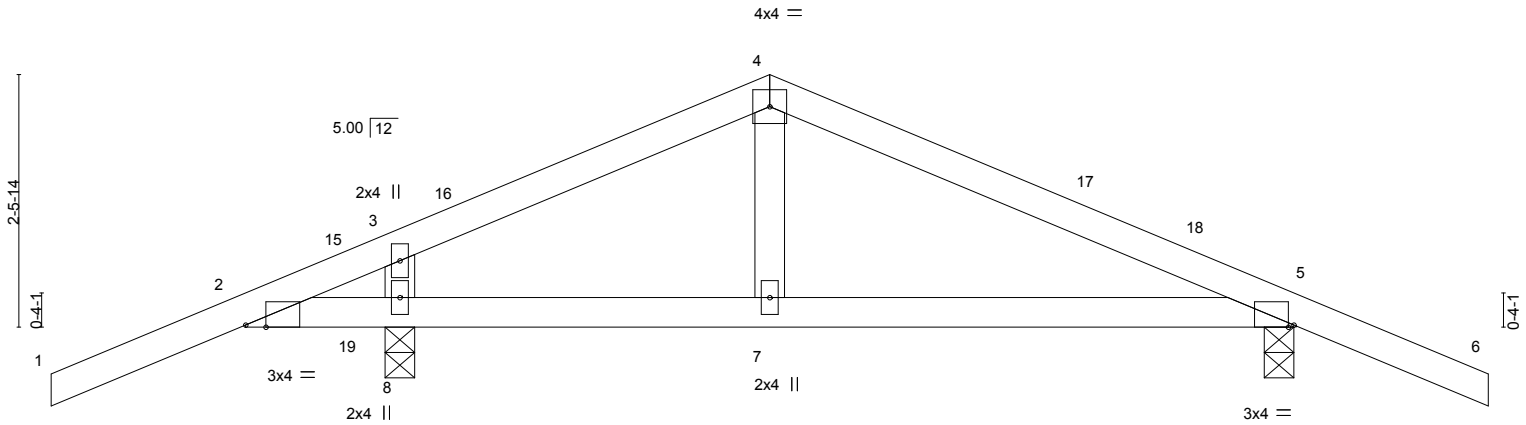

1-4-8 / 1-4-8 | 5-2-0 / 3-9-8 | 10-4-0 / 5-2-0

Plate Offsets (X,Y)-- [2:0-2-6,Edge], [5:0-0-10,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	0.54	Vert(LL)	-0.06	7-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.11	7-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 32 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) 5=0-3-8, 8=0-3-8
Max Horz 5=-47(LC 13)
Max Uplift 5=-95(LC 13), 8=-126(LC 8)
Max Grav 5=496(LC 1), 8=703(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-333/74, 4-5=-333/71
WEBS 3-8=-445/278

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 5-2-0, Exterior(2R) 5-2-0 to 8-2-0, Interior(1) 8-2-0 to 12-3-0 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
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 95 lb uplift at joint 5 and 126 lb uplift at joint 8.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	F3	Common	2	1	Job Reference (optional)

I45732389

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:10 2021 Page 1
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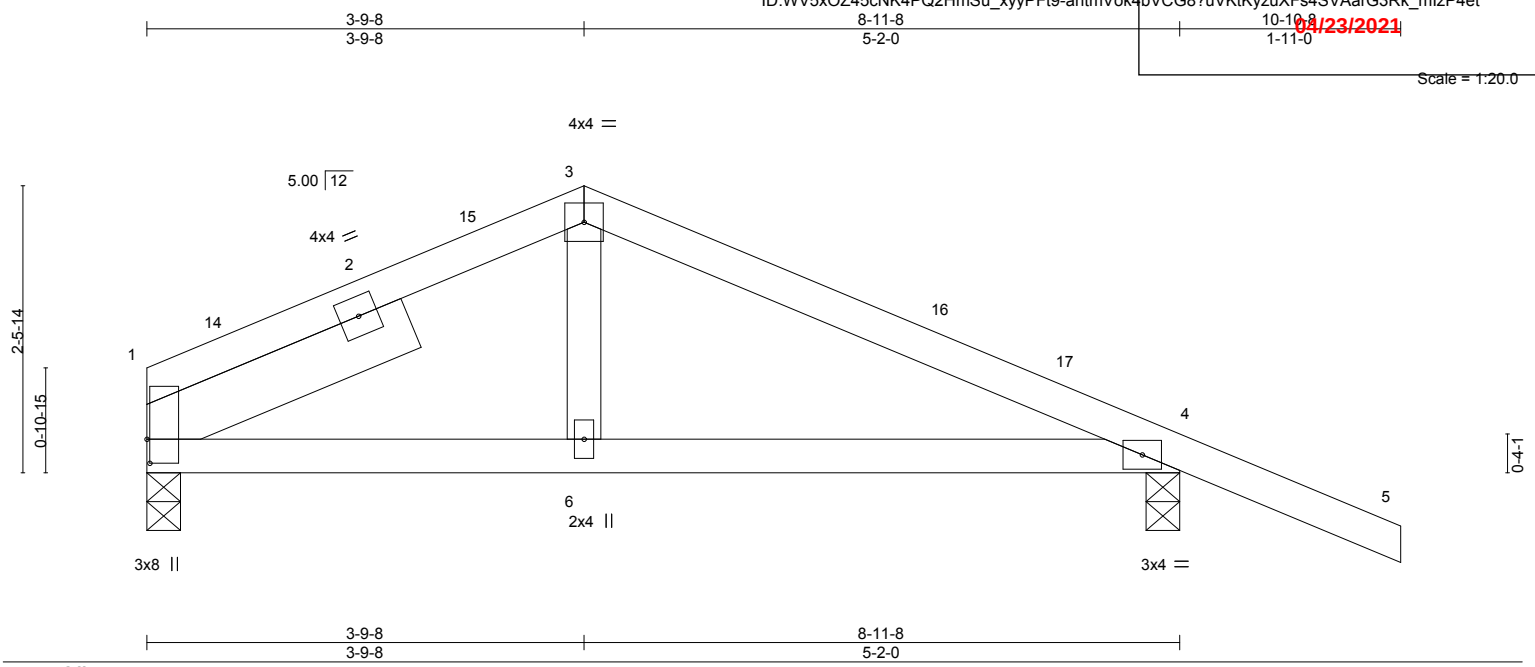

Plate Offsets (X,Y)-- [1:0-2-8,0-0-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.02	6-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.05	6-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.01	1	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 31 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 1=0-3-8, 4=0-3-8
Max Horz 4=-71(LC 13)
Max Uplift 1=-44(LC 12), 4=-98(LC 13)
Max Grav 1=389(LC 1), 4=552(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-441/214, 3-4=-508/189
BOT CHORD 1-6=-136/407, 4-6=-136/407

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 3-9-8, Exterior(2R) 3-9-8 to 6-9-8, Interior(1) 6-9-8 to 10-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 1 and 98 lb uplift at joint 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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732390
2742340	G1	Half Hip Girder	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 14 11:47:07 2021 Page 1
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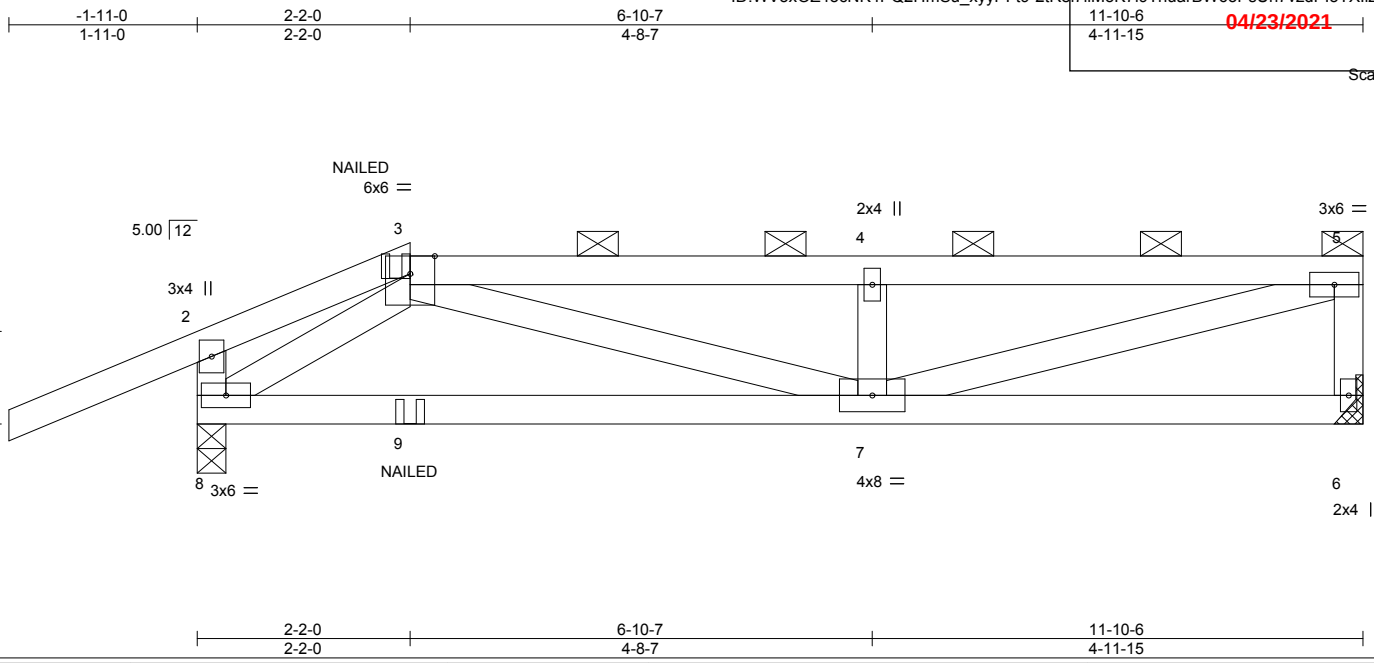

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.06	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.13	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 46 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 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-6 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 8=0-3-8
Max Horz 8=68(LC 7)
Max Uplift 6=-94(LC 5), 8=-134(LC 4)
Max Grav 6=505(LC 22), 8=663(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-1107/193, 4-5=-1105/192, 5-6=-458/106
BOT CHORD 7-8=-141/498
WEBS 3-7=-118/703, 4-7=-382/136, 5-7=-193/1078, 3-8=-658/165

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 6 and 134 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-5=-70, 6-8=-20
Concentrated Loads (lb)
Vert: 9=18(B)

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	G2	Half Hip	2	1	Job Reference (optional)

I45732391

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL ONLY

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:03 2021 Page 1
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04/23/2021

-1-11-0	2-3-8	4-2-12	8-0-9	10-0-0	11-10-6
1-11-0	2-3-8	1-11-4	3-9-13	1-11-7	1-10-6

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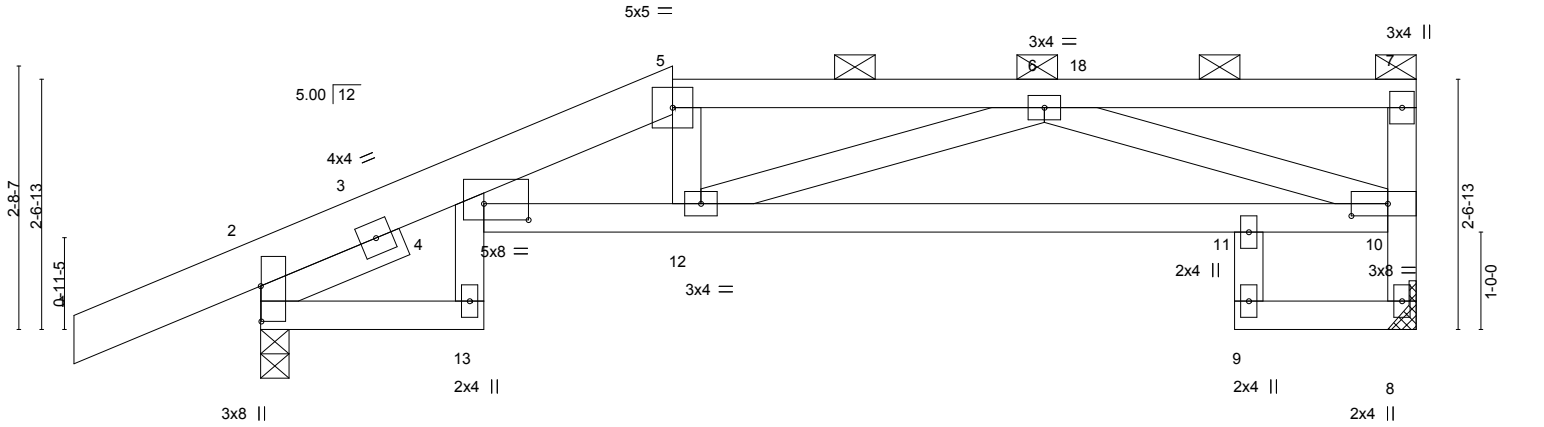

2-3-8	4-2-12	10-0-0	11-10-6
2-3-8	1-11-4	5-9-4	1-10-6

Plate Offsets (X,Y)-- [2:0-4-6,0-0-1], [4:0-5-8,0-2-0], [10:0-4-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.07	4-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.15	11-12	>969	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.13	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 52 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except* 5-7: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -t 1-7-3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-3-14 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=97(LC 11)
Max Uplift 8=-93(LC 9), 2=-121(LC 12)
Max Grav 8=517(LC 1), 2=675(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-1175/269, 5-6=-1163/300, 8-10=-486/119
BOT CHORD 4-12=-362/1172, 11-12=-304/1019, 10-11=-281/1049
WEBS 6-12=-46/267, 6-10=-942/316

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 4-2-12, Exterior(2R) 4-2-12 to 8-5-11, Interior(1) 8-5-11 to 11-8-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 8 and 121 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	G3	Half Hip	2	1	Job Reference (optional)

I45732392

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 09:35:51 2021 Page 1
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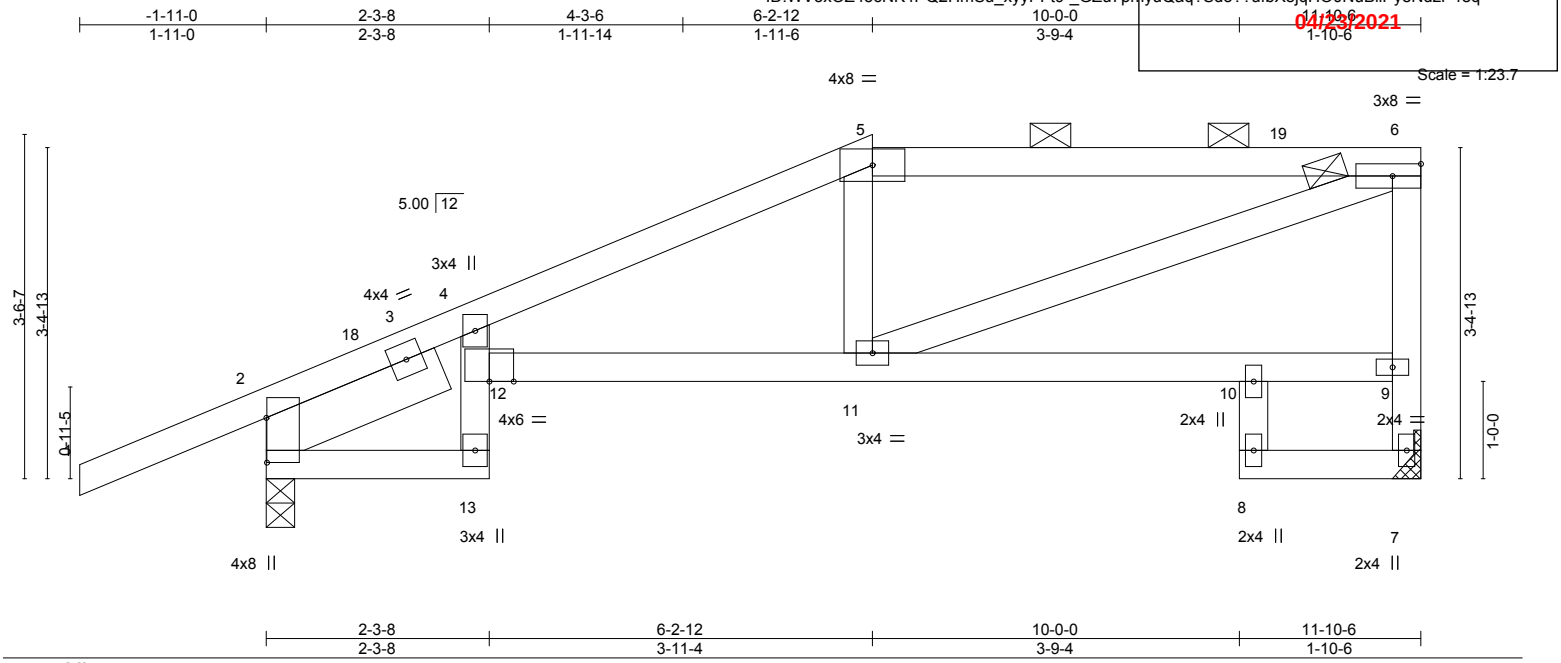

Plate Offsets (X,Y)-- [2:0-5-8,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.10	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.18	11-12	>797	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.10	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 50 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-0-0

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=128(LC 11)
Max Uplift 7=-90(LC 9), 2=-107(LC 12)
Max Grav 7=516(LC 1), 2=672(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-576/143, 4-5=-890/231, 5-6=-824/267, 7-9=-493/140, 6-9=-469/160
BOT CHORD 2-13=-233/439, 11-12=-323/815
WEBS 6-11=-305/799

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 6-2-12, Exterior(2R) 6-2-12 to 10-5-11, Interior(1) 10-5-11 to 11-8-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 7 and 107 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	G4	Half Hip	2	1	Job Reference (optional)

I45732393

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:01:12 2021 Page 1
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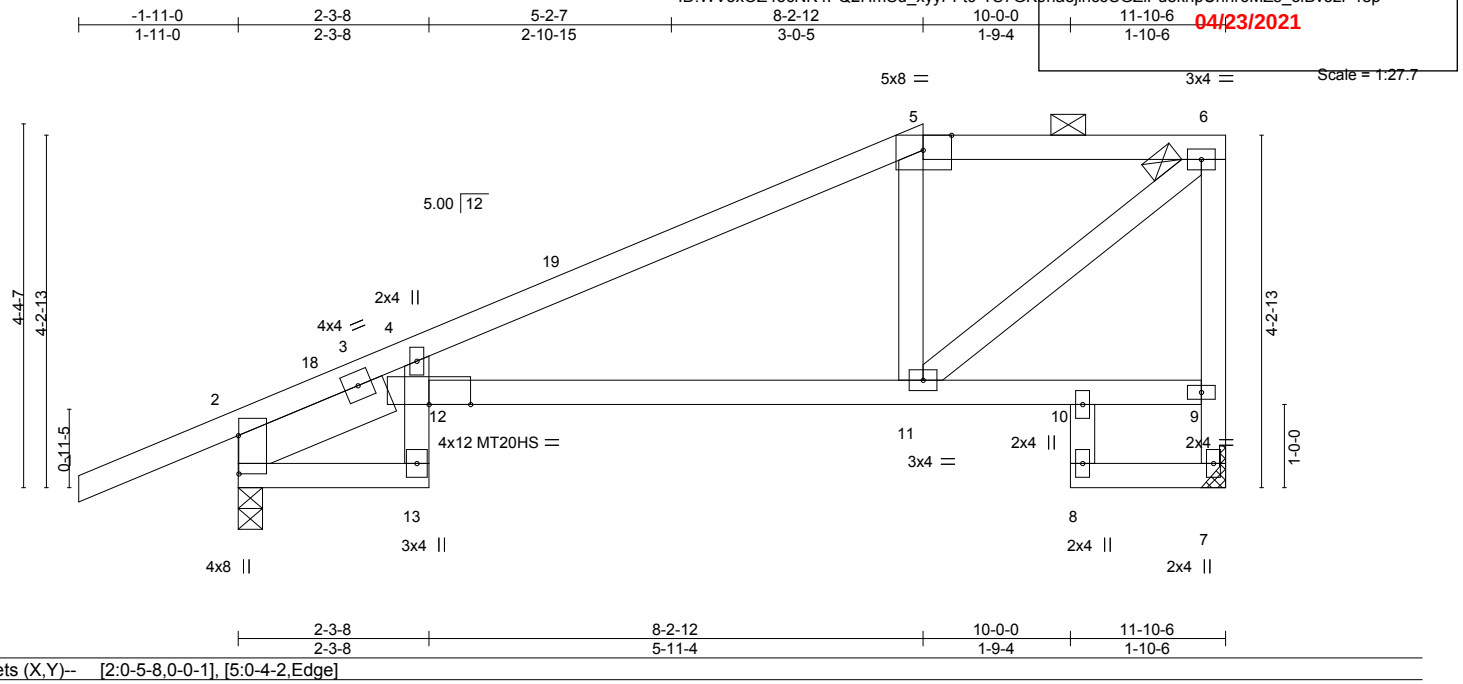

Plate Offsets (X,Y)-- [2:0-5-8,0-0-1], [5:0-4-2,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.20	11-12	>698	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.38	11-12	>371	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.17	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 50 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-0-0

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=160(LC 11)
Max Uplift 7=-84(LC 9), 2=-114(LC 12)
Max Grav 7=516(LC 1), 2=672(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-577/144, 4-5=-655/140, 5-6=-585/195, 7-9=-507/166, 6-9=-543/188
BOT CHORD 2-13=-253/441, 11-12=-267/573
WEBS 6-11=-300/770

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 8-2-12, Exterior(2E) 8-2-12 to 11-8-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 7 and 114 lb uplift at joint 2.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	GR1	Flat Girder	1	2	Job Reference (optional)

I45732394

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:03:51 2021 Page 1
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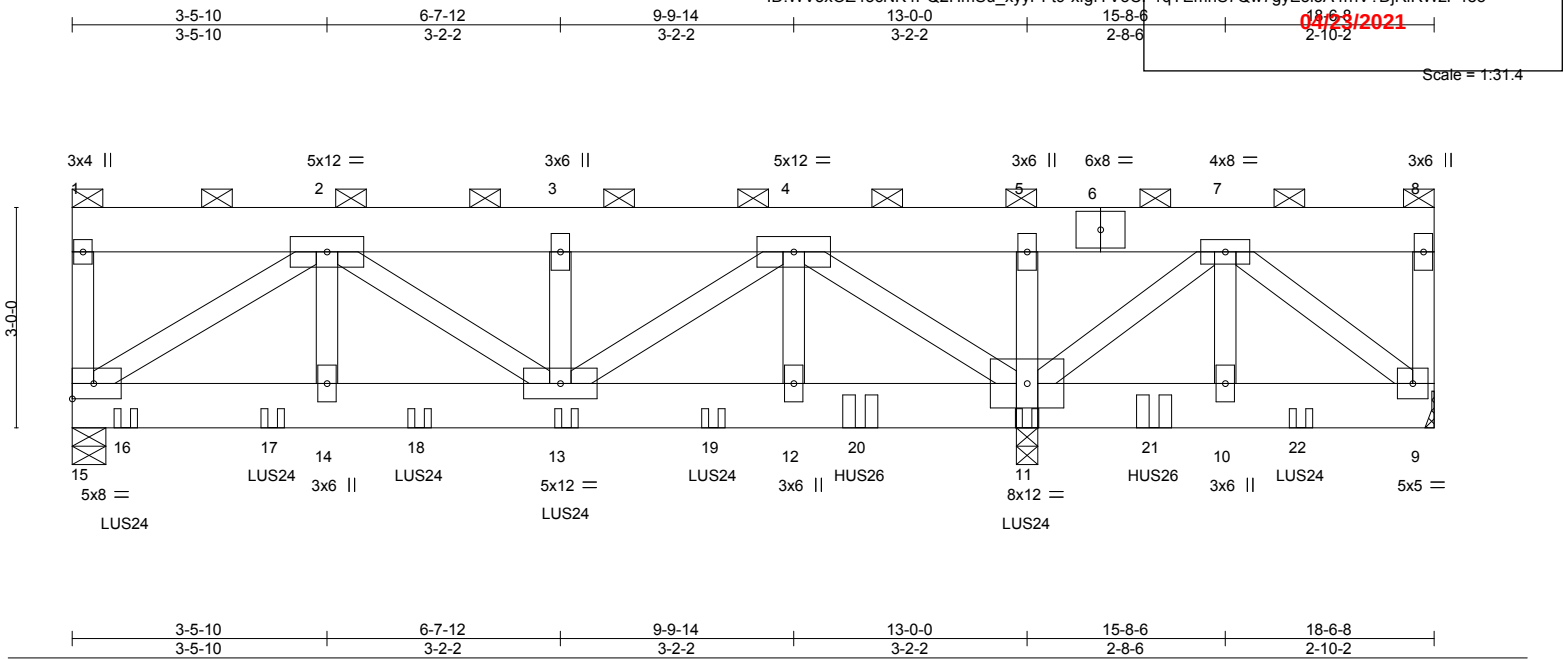
04/23/2021



3-5-10	6-7-12	9-9-14	13-0-0	15-8-6	18-6-8
3-5-10	3-2-2	3-2-2	3-2-2	2-8-6	2-10-2

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	0.28	Vert(LL)	-0.02	13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.09	13	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.66	Horz(CT)	0.02	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 302 lb	FT = 20%

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

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 15=0-5-8, 9=Mechanical, 11=0-3-8
Max Horz 15=82(LC 24)
Max Grav 15=6370(LC 1), 9=1068(LC 1), 11=12249(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-15=-1223/0, 2-3=-7320/0, 3-4=-7320/0, 4-5=0/2638, 5-7=0/2638, 8-9=-978/0
BOT CHORD 14-15=0/6163, 13-14=0/6163, 12-13=0/4004, 11-12=0/4004, 10-11=-261/0, 9-10=-261/0
WEBS 2-15=-7439/0, 2-14=-347/784, 2-13=0/1449, 3-13=-2212/0, 4-13=0/4153, 4-12=-413/421, 4-11=-8318/0, 5-11=-3275/0, 7-11=-3178/0, 7-10=-490/277, 7-9=0/377

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
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) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide metal plate or equivalent at bearing(s) 11 to support reaction shown.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) 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 0-8-12 from the left end to 8-8-12 to connect truss(es) to back face of bottom chord.
13) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 10-8-12 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
14) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 3-8-12 oc max. starting at 13-0-0 from the left end to 16-8-12 to connect truss(es) to back face of bottom chord.

April 20,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

15) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 14-8-12 from the left end to connect truss(es) to back face of bottom chord.
16) 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: 1-8=-770, 9-15=-20
   Concentrated Loads (lb)
   Vert: 13=-586(B) 11=-586(B) 16=-585(B) 17=-581(B) 18=-586(B) 19=-586(B) 20=-586(B) 21=-586(B) 22=-586(B)
2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-8=-758, 9-15=-20
   Concentrated Loads (lb)
   Vert: 13=-504(B) 11=-504(B) 16=-502(B) 17=-498(B) 18=-504(B) 19=-504(B) 20=-504(B) 21=-504(B) 22=-504(B)
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-8=-720, 9-15=-40
   Concentrated Loads (lb)
   Vert: 13=-378(B) 11=-377(B) 16=-373(B) 17=-364(B) 18=-378(B) 19=-378(B) 20=-378(B) 21=-377(B) 22=-377(B)
4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-675, 9-15=-8
   Horz: 1-15=15, 8-9=19
   Concentrated Loads (lb)
   Vert: 13=96(B) 11=91(B) 16=102(B) 17=114(B) 18=96(B) 19=96(B) 20=96(B) 21=91(B) 22=91(B)
5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-675, 9-15=-8
   Horz: 1-15=-19, 8-9=-15
   Concentrated Loads (lb)
   Vert: 13=96(B) 11=91(B) 16=102(B) 17=114(B) 18=96(B) 19=96(B) 20=96(B) 21=91(B) 22=91(B)
6) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-694, 9-15=-20
   Horz: 1-15=26, 8-9=9
   Concentrated Loads (lb)
   Vert: 13=107(B) 11=102(B) 16=111(B) 17=126(B) 18=107(B) 19=107(B) 20=107(B) 21=102(B) 22=102(B)
7) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-694, 9-15=-20
   Horz: 1-15=-9, 8-9=-26
   Concentrated Loads (lb)
   Vert: 13=107(B) 11=102(B) 16=111(B) 17=126(B) 18=107(B) 19=107(B) 20=107(B) 21=102(B) 22=102(B)
8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-675, 9-15=-8
   Horz: 1-15=13, 8-9=18
   Concentrated Loads (lb)
   Vert: 13=96(B) 11=91(B) 16=102(B) 17=114(B) 18=96(B) 19=96(B) 20=96(B) 21=91(B) 22=91(B)
9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-675, 9-15=-8
   Horz: 1-15=-18, 8-9=-13
   Concentrated Loads (lb)
   Vert: 13=96(B) 11=91(B) 16=102(B) 17=114(B) 18=96(B) 19=96(B) 20=96(B) 21=91(B) 22=91(B)
10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-686, 9-15=-8
   Horz: 1-15=6, 8-9=14
   Concentrated Loads (lb)
   Vert: 13=96(B) 11=91(B) 16=102(B) 17=114(B) 18=96(B) 19=96(B) 20=96(B) 21=91(B) 22=91(B)
11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-686, 9-15=-8
   Horz: 1-15=-14, 8-9=-6
   Concentrated Loads (lb)
   Vert: 13=96(B) 11=91(B) 16=102(B) 17=114(B) 18=96(B) 19=96(B) 20=96(B) 21=91(B) 22=91(B)
12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-694, 9-15=-20
   Horz: 1-15=23, 8-9=7
   Concentrated Loads (lb)
   Vert: 13=107(B) 11=102(B) 16=111(B) 17=126(B) 18=107(B) 19=107(B) 20=107(B) 21=102(B) 22=102(B)
13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

LOAD CASE(S) Standard

Uniform Loads (plf)
Vert: 1-8=-694, 9-15=-20
Horz: 1-15=-7, 8-9=-23
Concentrated Loads (lb)
Vert: 13=107(B) 11=102(B) 16=111(B) 17=126(B) 18=107(B) 19=107(B) 20=107(B) 21=102(B) 22=102(B)

14) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-8=-720, 9-15=-20
Concentrated Loads (lb)
Vert: 13=-257(B) 11=-257(B) 16=-253(B) 17=-249(B) 18=-257(B) 19=-257(B) 20=-257(B) 21=-257(B) 22=-257(B)

15) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-15=-20
Horz: 1-15=19, 8-9=7
Concentrated Loads (lb)
Vert: 13=50(B) 11=47(B) 16=53(B) 17=65(B) 18=50(B) 19=50(B) 20=50(B) 21=47(B) 22=47(B)

16) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-15=-20
Horz: 1-15=-7, 8-9=-19
Concentrated Loads (lb)
Vert: 13=50(B) 11=47(B) 16=53(B) 17=65(B) 18=50(B) 19=50(B) 20=50(B) 21=47(B) 22=47(B)

17) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-15=-20
Horz: 1-15=17, 8-9=5
Concentrated Loads (lb)
Vert: 13=50(B) 11=47(B) 16=53(B) 17=65(B) 18=50(B) 19=50(B) 20=50(B) 21=47(B) 22=47(B)

18) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-15=-20
Horz: 1-15=-5, 8-9=-17
Concentrated Loads (lb)
Vert: 13=50(B) 11=47(B) 16=53(B) 17=65(B) 18=50(B) 19=50(B) 20=50(B) 21=47(B) 22=47(B)

19) Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-712, 9-15=-8
Horz: 1-15=16
Concentrated Loads (lb)
Vert: 13=53(B) 11=55(B) 16=66(B) 17=78(B) 18=53(B) 19=53(B) 20=53(B) 21=55(B) 22=55(B)

20) Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-712, 9-15=-8
Horz: 8-9=-16
Concentrated Loads (lb)
Vert: 13=53(B) 11=55(B) 16=66(B) 17=78(B) 18=53(B) 19=53(B) 20=53(B) 21=55(B) 22=55(B)

21) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-675, 9-15=-8
Horz: 1-15=15, 8-9=19
Concentrated Loads (lb)
Vert: 13=-244(B) 11=-223(B) 16=-207(B) 17=-198(B) 18=-244(B) 19=-244(B) 20=-244(B) 21=-223(B) 22=-223(B)

22) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-675, 9-15=-8
Horz: 1-15=-19, 8-9=-15
Concentrated Loads (lb)
Vert: 13=-244(B) 11=-223(B) 16=-207(B) 17=-198(B) 18=-244(B) 19=-244(B) 20=-244(B) 21=-223(B) 22=-223(B)

23) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-694, 9-15=-20
Horz: 1-15=26, 8-9=9
Concentrated Loads (lb)
Vert: 13=-232(B) 11=-212(B) 16=-198(B) 17=-187(B) 18=-232(B) 19=-232(B) 20=-232(B) 21=-212(B) 22=-212(B)

24) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-694, 9-15=-20
Horz: 1-15=-9, 8-9=-26
Concentrated Loads (lb)
Vert: 13=-232(B) 11=-212(B) 16=-198(B) 17=-187(B) 18=-232(B) 19=-232(B) 20=-232(B) 21=-212(B) 22=-212(B)

25) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-675, 9-15=-8
Horz: 1-15=13, 8-9=18
Concentrated Loads (lb)
Vert: 13=-244(B) 11=-223(B) 16=-207(B) 17=-198(B) 18=-244(B) 19=-244(B) 20=-244(B) 21=-223(B) 22=-223(B)

Continued on page 4

LOAD CASE(S) Standard

26) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-675, 9-15=-8
Horz: 1-15=-18, 8-9=-13
Concentrated Loads (lb)
Vert: 13=-244(B) 11=-223(B) 16=-207(B) 17=-198(B) 18=-244(B) 19=-244(B) 20=-244(B) 21=-223(B) 22=-223(B)

27) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-686, 9-15=-8
Horz: 1-15=6, 8-9=14
Concentrated Loads (lb)
Vert: 13=-244(B) 11=-223(B) 16=-207(B) 17=-198(B) 18=-244(B) 19=-244(B) 20=-244(B) 21=-223(B) 22=-223(B)

28) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-686, 9-15=-8
Horz: 1-15=-14, 8-9=-6
Concentrated Loads (lb)
Vert: 13=-244(B) 11=-223(B) 16=-207(B) 17=-198(B) 18=-244(B) 19=-244(B) 20=-244(B) 21=-223(B) 22=-223(B)

29) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-694, 9-15=-20
Horz: 1-15=23, 8-9=7
Concentrated Loads (lb)
Vert: 13=-232(B) 11=-212(B) 16=-198(B) 17=-187(B) 18=-232(B) 19=-232(B) 20=-232(B) 21=-212(B) 22=-212(B)

30) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-694, 9-15=-20
Horz: 1-15=-7, 8-9=-23
Concentrated Loads (lb)
Vert: 13=-232(B) 11=-212(B) 16=-198(B) 17=-187(B) 18=-232(B) 19=-232(B) 20=-232(B) 21=-212(B) 22=-212(B)

31) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-15=-20
Horz: 1-15=19, 8-9=7
Concentrated Loads (lb)
Vert: 13=-424(B) 11=-408(B) 16=-399(B) 17=-389(B) 18=-424(B) 19=-424(B) 20=-424(B) 21=-408(B) 22=-408(B)

32) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-15=-20
Horz: 1-15=-7, 8-9=-19
Concentrated Loads (lb)
Vert: 13=-424(B) 11=-408(B) 16=-399(B) 17=-389(B) 18=-424(B) 19=-424(B) 20=-424(B) 21=-408(B) 22=-408(B)

33) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-15=-20
Horz: 1-15=17, 8-9=5
Concentrated Loads (lb)
Vert: 13=-424(B) 11=-408(B) 16=-399(B) 17=-389(B) 18=-424(B) 19=-424(B) 20=-424(B) 21=-408(B) 22=-408(B)

34) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-15=-20
Horz: 1-15=-5, 8-9=-17
Concentrated Loads (lb)
Vert: 13=-424(B) 11=-408(B) 16=-399(B) 17=-389(B) 18=-424(B) 19=-424(B) 20=-424(B) 21=-408(B) 22=-408(B)

35) Reversal: Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-712, 9-15=-8
Horz: 1-15=16
Concentrated Loads (lb)
Vert: 13=-201(B) 11=-188(B) 16=-172(B) 17=-163(B) 18=-201(B) 19=-201(B) 20=-201(B) 21=-188(B) 22=-188(B)

36) Reversal: Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-712, 9-15=-8
Horz: 8-9=-16
Concentrated Loads (lb)
Vert: 13=-201(B) 11=-188(B) 16=-172(B) 17=-163(B) 18=-201(B) 19=-201(B) 20=-201(B) 21=-188(B) 22=-188(B)

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	GR2	Flat Girder	1	2	Job Reference (optional)

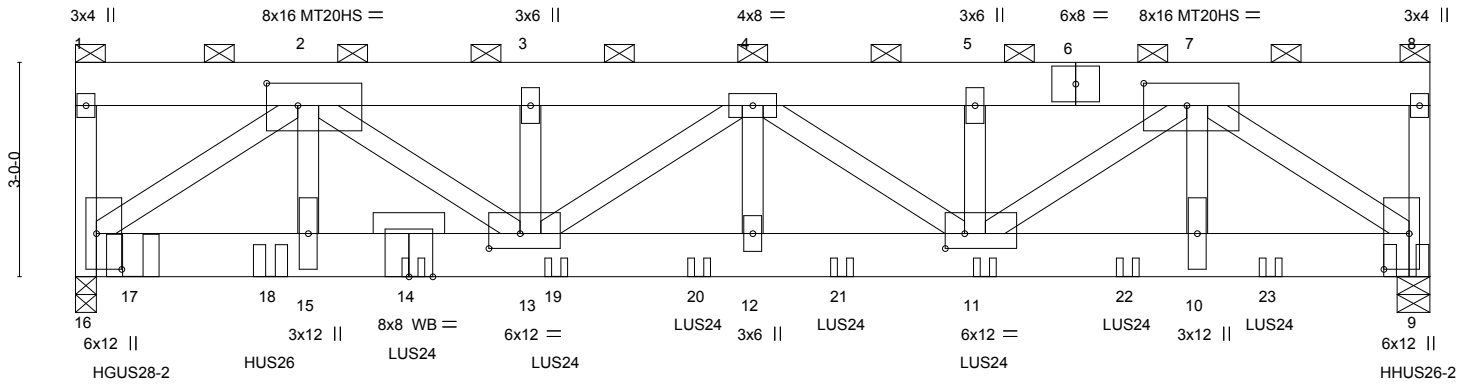
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

I45732395

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:13 2021 Page 1
ID:WV5xOZ45cNK4PQ2HmSu_xyyPFt9-t1oPzBpTxe4GT4xrErybmNJRrvnCJYCIg0wrWOzP4em

3-3-1	6-4-7	9-5-12	12-7-1	15-8-7	18-11-8
3-3-1	3-1-5	3-1-5	3-1-5	3-1-5	3-3-1

Scale: 3/8"=1'



3-3-1	6-4-7	9-5-12	12-7-1	15-8-7	18-11-8
3-3-1	3-1-5	3-1-5	3-1-5	3-1-5	3-3-1

Plate Offsets (X,Y)-- [2:0-5-4,0-3-12], [7:0-7-4,0-3-12], [9:0-6-0,0-4-4], [11:0-3-4,0-2-8], [13:0-5-4,0-2-8], [16:0-6-0,0-4-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.06	12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.30	12	>746	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.07	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 309 lb	FT = 20%

LUMBER-
TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except*
2-16,2-13,4-13,4-11,7-11,7-9: 2x4 SPF 1650F 1.5E
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD 2-0-0 oc purlins (5-8-9 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 9=0-5-8, 16=0-3-8
Max Horz 16=-82(LC 6)
Max Grav 9=12034(LC 1), 16=11578(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-16=-1228/0, 2-3=-18089/0, 3-4=-18089/0, 4-5=-17968/0, 5-7=-17968/0, 8-9=-1204/0
BOT CHORD 15-16=0/11532, 13-15=0/11532, 12-13=0/20341, 11-12=0/20341, 10-11=0/11240, 9-10=0/11240
WEBS 2-16=-14300/0, 2-15=-62/1141, 2-13=0/8277, 3-13=-2100/0, 4-13=-2843/0, 4-12=-199/908, 4-11=-2995/0, 5-11=-2070/0, 7-11=0/8492, 7-10=-344/752, 7-9=-13960/0

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-7-0 oc, Except member 2-15 2x4 - 1 row at 0-9-0 oc, member 13-2 2x4 - 1 row at 0-9-0 oc, member 3-13 2x4 - 1 row at 0-9-0 oc, member 13-4 2x4 - 1 row at 0-9-0 oc, member 4-12 2x4 - 1 row at 0-9-0 oc, member 11-4 2x4 - 1 row at 0-9-0 oc, member 5-11 2x4 - 1 row at 0-9-0 oc, member 11-7 2x4 - 1 row at 0-9-0 oc, member 7-10 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearing at joint(s) 9, 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide metal plate or equivalent at bearing(s) 9 to support reaction shown.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Use Simpson Strong-Tie HGUS28-2 (36-10d Girder, 6-10d Truss) or equivalent at 0-9-10 from the left end to connect truss(es) to back face of bottom chord.
13) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 2-8-12 from the left end to connect truss(es) to back face of bottom chord.
14) 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 4-8-12 from the left end to 16-8-12 to connect truss(es) to back face of bottom chord.
15) Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 18-9-12 from the left end to connect truss(es) to back face of bottom chord.
16) 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: 1-8=-770, 9-16=-20
   Concentrated Loads (lb)
   Vert: 14=-677(B) 11=-672(B) 9=-1841(B) 17=-1620(B) 18=-677(B) 19=-678(B) 20=-678(B) 21=-678(B) 22=-672(B) 23=-672(B)
2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-8=-758, 9-16=-20
   Concentrated Loads (lb)
   Vert: 14=-582(B) 11=-576(B) 9=-1580(B) 17=-1493(B) 18=-582(B) 19=-583(B) 20=-583(B) 21=-583(B) 22=-576(B) 23=-576(B)
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-8=-720, 9-16=-40
   Concentrated Loads (lb)
   Vert: 14=-437(B) 11=-425(B) 9=-1167(B) 17=-1285(B) 18=-437(B) 19=-438(B) 20=-438(B) 21=-438(B) 22=-425(B) 23=-425(B)
4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-675, 9-16=-8
   Horz: 1-16=15, 8-9=19
   Concentrated Loads (lb)
   Vert: 14=102(B) 11=137(B) 9=377(B) 17=-923(B) 18=102(B) 19=101(B) 20=101(B) 21=101(B) 22=114(B) 23=121(B)
5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-675, 9-16=-8
   Horz: 1-16=-19, 8-9=-15
   Concentrated Loads (lb)
   Vert: 14=102(B) 11=137(B) 9=377(B) 17=-923(B) 18=102(B) 19=101(B) 20=101(B) 21=101(B) 22=114(B) 23=121(B)
6) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-694, 9-16=-20
   Horz: 1-16=26, 8-9=9
   Concentrated Loads (lb)
   Vert: 14=113(B) 11=148(B) 9=384(B) 17=-914(B) 18=113(B) 19=113(B) 20=113(B) 21=113(B) 22=126(B) 23=133(B)
7) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-694, 9-16=-20
   Horz: 1-16=-9, 8-9=-26
   Concentrated Loads (lb)
   Vert: 14=113(B) 11=148(B) 9=384(B) 17=-914(B) 18=113(B) 19=113(B) 20=113(B) 21=113(B) 22=126(B) 23=133(B)
8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-675, 9-16=-8
   Horz: 1-16=13, 8-9=18
   Concentrated Loads (lb)
   Vert: 14=102(B) 11=137(B) 9=377(B) 17=-923(B) 18=102(B) 19=101(B) 20=101(B) 21=101(B) 22=114(B) 23=121(B)
9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-675, 9-16=-8
   Horz: 1-16=-18, 8-9=-13
   Concentrated Loads (lb)
   Vert: 14=102(B) 11=137(B) 9=377(B) 17=-923(B) 18=102(B) 19=101(B) 20=101(B) 21=101(B) 22=114(B) 23=121(B)
10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-686, 9-16=-8
   Horz: 1-16=6, 8-9=14
   Concentrated Loads (lb)
   Vert: 14=102(B) 11=137(B) 9=377(B) 17=-923(B) 18=102(B) 19=101(B) 20=101(B) 21=101(B) 22=114(B) 23=121(B)
11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-686, 9-16=-8
   Horz: 1-16=-14, 8-9=-6
   Concentrated Loads (lb)
   Vert: 14=102(B) 11=137(B) 9=377(B) 17=-923(B) 18=102(B) 19=101(B) 20=101(B) 21=101(B) 22=114(B) 23=121(B)
12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-8=-694, 9-16=-20
   Horz: 1-16=23, 8-9=7

Continued on page 3

LOAD CASE(S) Standard

Concentrated Loads (lb)
Vert: 14=113(B) 11=148(B) 9=384(B) 17=-914(B) 18=113(B) 19=113(B) 20=113(B) 21=113(B) 22=126(B) 23=133(B)

13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-694, 9-16=-20
Horz: 1-16=-7, 8-9=-23
Concentrated Loads (lb)
Vert: 14=113(B) 11=148(B) 9=384(B) 17=-914(B) 18=113(B) 19=113(B) 20=113(B) 21=113(B) 22=126(B) 23=133(B)

14) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-8=-720, 9-16=-20
Concentrated Loads (lb)
Vert: 14=-297(B) 11=-289(B) 9=-798(B) 17=-1110(B) 18=-297(B) 19=-298(B) 20=-298(B) 21=-298(B) 22=-289(B) 23=-289(B)

15) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-16=-20
Horz: 1-16=19, 8-9=7
Concentrated Loads (lb)
Vert: 14=49(B) 11=77(B) 9=187(B) 17=-914(B) 18=49(B) 19=49(B) 20=49(B) 21=49(B) 22=60(B) 23=65(B)

16) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-16=-20
Horz: 1-16=-7, 8-9=-19
Concentrated Loads (lb)
Vert: 14=49(B) 11=77(B) 9=187(B) 17=-914(B) 18=49(B) 19=49(B) 20=49(B) 21=49(B) 22=60(B) 23=65(B)

17) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-16=-20
Horz: 1-16=17, 8-9=5
Concentrated Loads (lb)
Vert: 14=49(B) 11=77(B) 9=187(B) 17=-914(B) 18=49(B) 19=49(B) 20=49(B) 21=49(B) 22=60(B) 23=65(B)

18) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-16=-20
Horz: 1-16=-5, 8-9=-17
Concentrated Loads (lb)
Vert: 14=49(B) 11=77(B) 9=187(B) 17=-914(B) 18=49(B) 19=49(B) 20=49(B) 21=49(B) 22=60(B) 23=65(B)

19) Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-712, 9-16=-8
Horz: 1-16=16
Concentrated Loads (lb)
Vert: 14=61(B) 11=96(B) 9=261(B) 17=-923(B) 18=61(B) 19=61(B) 20=61(B) 21=61(B) 22=73(B) 23=80(B)

20) Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-712, 9-16=-8
Horz: 8-9=-16
Concentrated Loads (lb)
Vert: 14=61(B) 11=96(B) 9=261(B) 17=-923(B) 18=61(B) 19=61(B) 20=61(B) 21=61(B) 22=73(B) 23=80(B)

21) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-675, 9-16=-8
Horz: 1-16=15, 8-9=19
Concentrated Loads (lb)
Vert: 14=-258(B) 11=-228(B) 9=-755(B) 17=-1200(B) 18=-258(B) 19=-258(B) 20=-258(B) 21=-258(B) 22=-236(B) 23=-205(B)

22) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-675, 9-16=-8
Horz: 1-16=-19, 8-9=-15
Concentrated Loads (lb)
Vert: 14=-258(B) 11=-228(B) 9=-755(B) 17=-1200(B) 18=-258(B) 19=-258(B) 20=-258(B) 21=-258(B) 22=-236(B) 23=-205(B)

23) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-694, 9-16=-20
Horz: 1-16=26, 8-9=9
Concentrated Loads (lb)
Vert: 14=-246(B) 11=-217(B) 9=-749(B) 17=-1191(B) 18=-246(B) 19=-246(B) 20=-246(B) 21=-246(B) 22=-224(B) 23=-193(B)

24) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-694, 9-16=-20
Horz: 1-16=-9, 8-9=-26

Continued on page 4

LOAD CASE(S) Standard

Concentrated Loads (lb)
Vert: 14=-246(B) 11=-217(B) 9=-749(B) 17=-1191(B) 18=-246(B) 19=-246(B) 20=-246(B) 21=-246(B) 22=-224(B) 23=-193(B)

25) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-675, 9-16=-8
Horz: 1-16=13, 8-9=18
Concentrated Loads (lb)
Vert: 14=-258(B) 11=-228(B) 9=-755(B) 17=-1200(B) 18=-258(B) 19=-258(B) 20=-258(B) 21=-258(B) 22=-236(B) 23=-205(B)

26) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-675, 9-16=-8
Horz: 1-16=-18, 8-9=-13
Concentrated Loads (lb)
Vert: 14=-258(B) 11=-228(B) 9=-755(B) 17=-1200(B) 18=-258(B) 19=-258(B) 20=-258(B) 21=-258(B) 22=-236(B) 23=-205(B)

27) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-686, 9-16=-8
Horz: 1-16=6, 8-9=14
Concentrated Loads (lb)
Vert: 14=-258(B) 11=-228(B) 9=-755(B) 17=-1200(B) 18=-258(B) 19=-258(B) 20=-258(B) 21=-258(B) 22=-236(B) 23=-205(B)

28) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-686, 9-16=-8
Horz: 1-16=-14, 8-9=-6
Concentrated Loads (lb)
Vert: 14=-258(B) 11=-228(B) 9=-755(B) 17=-1200(B) 18=-258(B) 19=-258(B) 20=-258(B) 21=-258(B) 22=-236(B) 23=-205(B)

29) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-694, 9-16=-20
Horz: 1-16=23, 8-9=7
Concentrated Loads (lb)
Vert: 14=-246(B) 11=-217(B) 9=-749(B) 17=-1191(B) 18=-246(B) 19=-246(B) 20=-246(B) 21=-246(B) 22=-224(B) 23=-193(B)

30) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-694, 9-16=-20
Horz: 1-16=-7, 8-9=-23
Concentrated Loads (lb)
Vert: 14=-246(B) 11=-217(B) 9=-749(B) 17=-1191(B) 18=-246(B) 19=-246(B) 20=-246(B) 21=-246(B) 22=-224(B) 23=-193(B)

31) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-16=-20
Horz: 1-16=19, 8-9=7
Concentrated Loads (lb)
Vert: 14=-473(B) 11=-450(B) 9=-1255(B) 17=-1431(B) 18=-473(B) 19=-473(B) 20=-473(B) 21=-473(B) 22=-456(B) 23=-433(B)

32) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-16=-20
Horz: 1-16=-7, 8-9=-19
Concentrated Loads (lb)
Vert: 14=-473(B) 11=-450(B) 9=-1255(B) 17=-1431(B) 18=-473(B) 19=-473(B) 20=-473(B) 21=-473(B) 22=-456(B) 23=-433(B)

33) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-16=-20
Horz: 1-16=17, 8-9=5
Concentrated Loads (lb)
Vert: 14=-473(B) 11=-450(B) 9=-1255(B) 17=-1431(B) 18=-473(B) 19=-473(B) 20=-473(B) 21=-473(B) 22=-456(B) 23=-433(B)

34) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-738, 9-16=-20
Horz: 1-16=-5, 8-9=-17
Concentrated Loads (lb)
Vert: 14=-473(B) 11=-450(B) 9=-1255(B) 17=-1431(B) 18=-473(B) 19=-473(B) 20=-473(B) 21=-473(B) 22=-456(B) 23=-433(B)

35) Reversal: Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-8=-712, 9-16=-8
Horz: 1-16=16
Concentrated Loads (lb)
Vert: 14=-217(B) 11=-187(B) 9=-639(B) 17=-1149(B) 18=-217(B) 19=-217(B) 20=-217(B) 21=-217(B) 22=-195(B) 23=-164(B)

36) Reversal: Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 5

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732395
2742340	GR2	Flat Girder	1	2	Job Reference (optional)	

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-8=-712, 9-16=-8

Horz: 8-9=-16

Concentrated Loads (lb)

Vert: 14=-217(B) 11=-187(B) 9=-639(B) 17=-1149(B) 18=-217(B) 19=-217(B) 20=-217(B) 21=-217(B) 22=-195(B) 23=-164(B)

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J1	Jack-Open	7	1	Job Reference (optional)

I45732396

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL DIVISION

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:15 2021 Page 1
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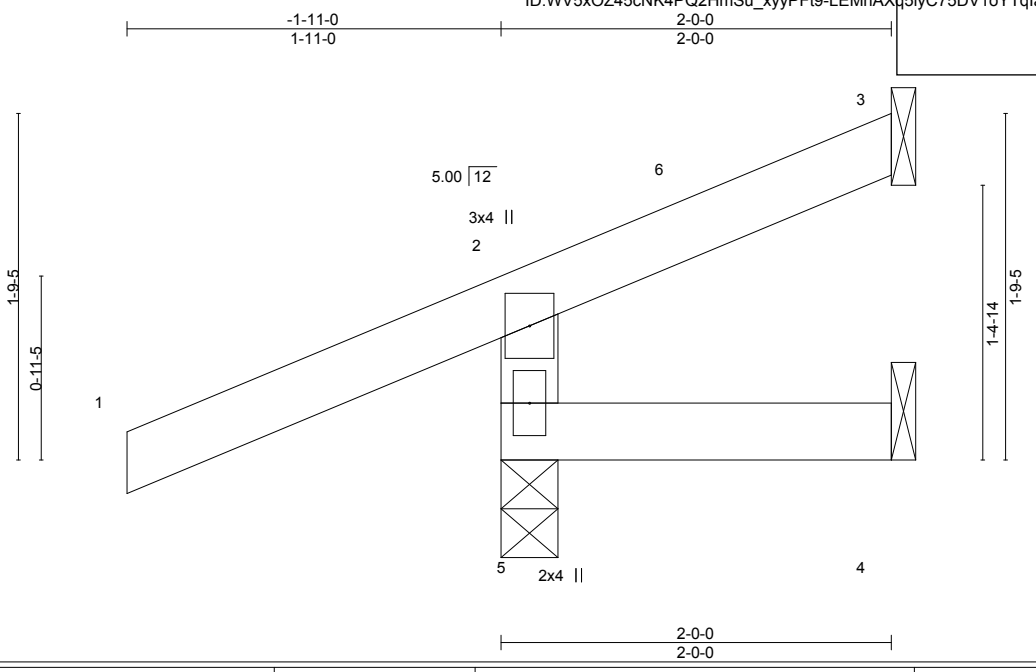
04/23/2021



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							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 2-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=48(LC 9)
Max Uplift 5=-76(LC 8), 3=-16(LC 12), 4=-5(LC 1)
Max Grav 5=308(LC 1), 3=7(LC 22), 4=28(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-266/205

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 1-11-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 76 lb uplift at joint 5, 16 lb uplift at joint 3 and 5 lb uplift at joint 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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732397
2742340	J2	Jack-Open	5	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:21 2021 Page 1
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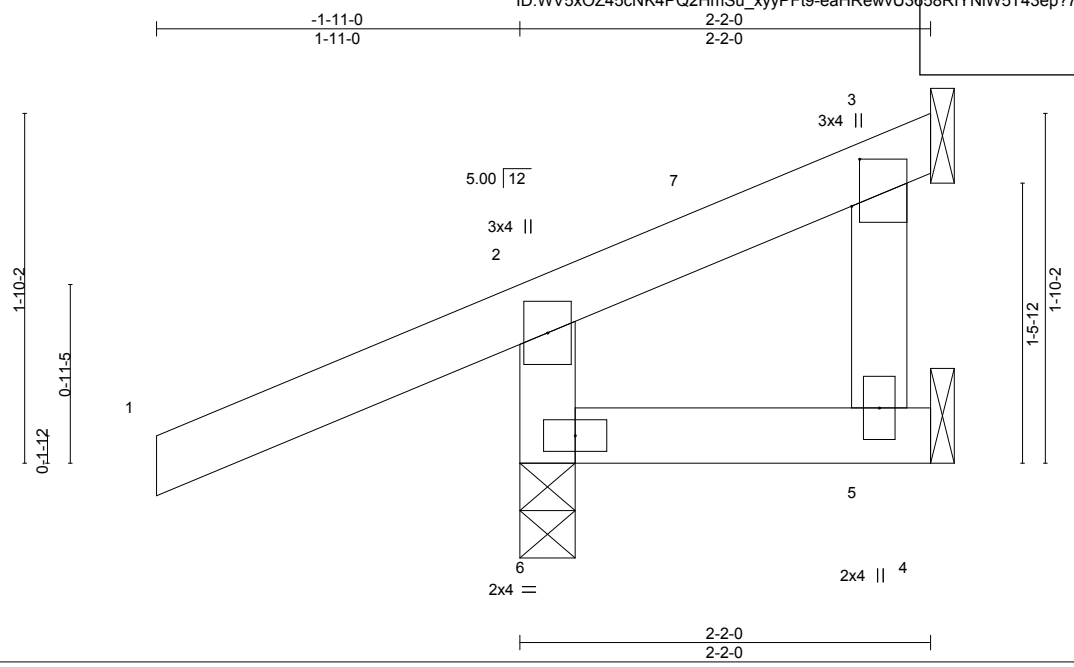

Plate Offsets (X,Y)-- [3:0-3-0,0-0-8]

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	0.30	Vert(LL)	0.00	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 10 lb	FT = 20%

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

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

REACTIONS. (size) 5=Mechanical, 3=Mechanical, 6=0-3-8
Max Horz 6=44(LC 9)
Max Uplift 5=-5(LC 25), 3=-39(LC 25), 6=-78(LC 8)
Max Grav 5=37(LC 3), 3=3(LC 8), 6=308(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-266/207

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 1-10-12 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 5, 39 lb uplift at joint 3 and 78 lb uplift at joint 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.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	J45732398
2742340	J3	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:27 2021 Page 1
ID:WV5xOZ45cNK4PQ2HmSu_xyyPFt9-Tkeivz_FeyrH9D?X3nCtKKurHYgjb4iMuCJb?azP4eY

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

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4-0-3
4-0-3

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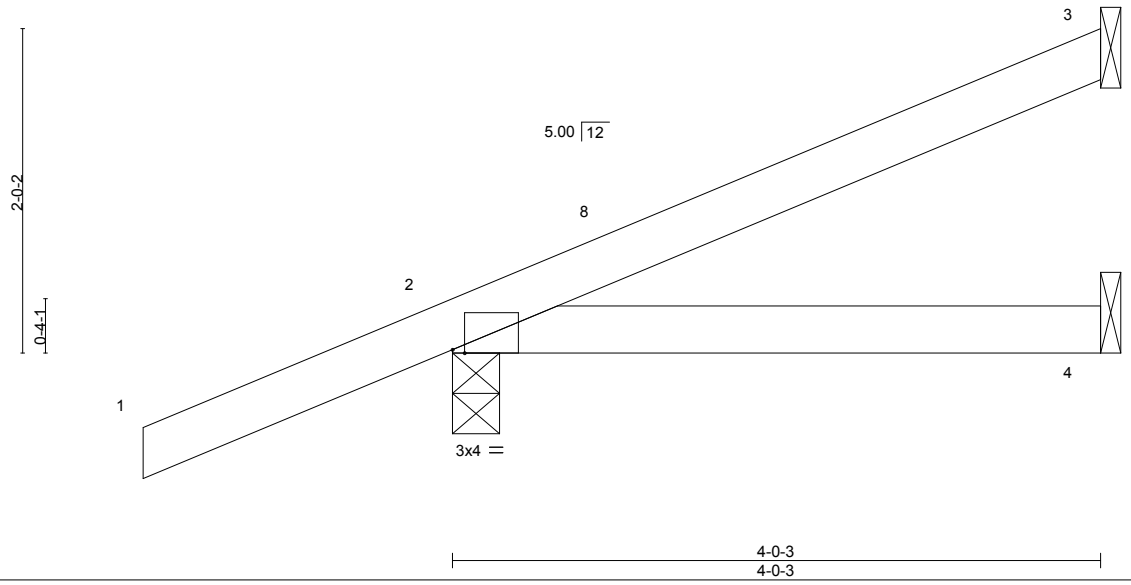

4-0-3
4-0-3

Plate Offsets (X,Y)-- [2:0-0-14,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	0.24	Vert(LL)	-0.01	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02	4-7	>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-AS							Weight: 12 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=85(LC 12)
Max Uplift 3=-42(LC 12), 2=-69(LC 8)
Max Grav 3=104(LC 1), 2=345(LC 1), 4=67(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-11-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 3 and 69 lb uplift at joint 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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J4	Jack-Open	2	1	Job Reference (optional)

I45732399

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 20 07:28:35 2021 Page 1
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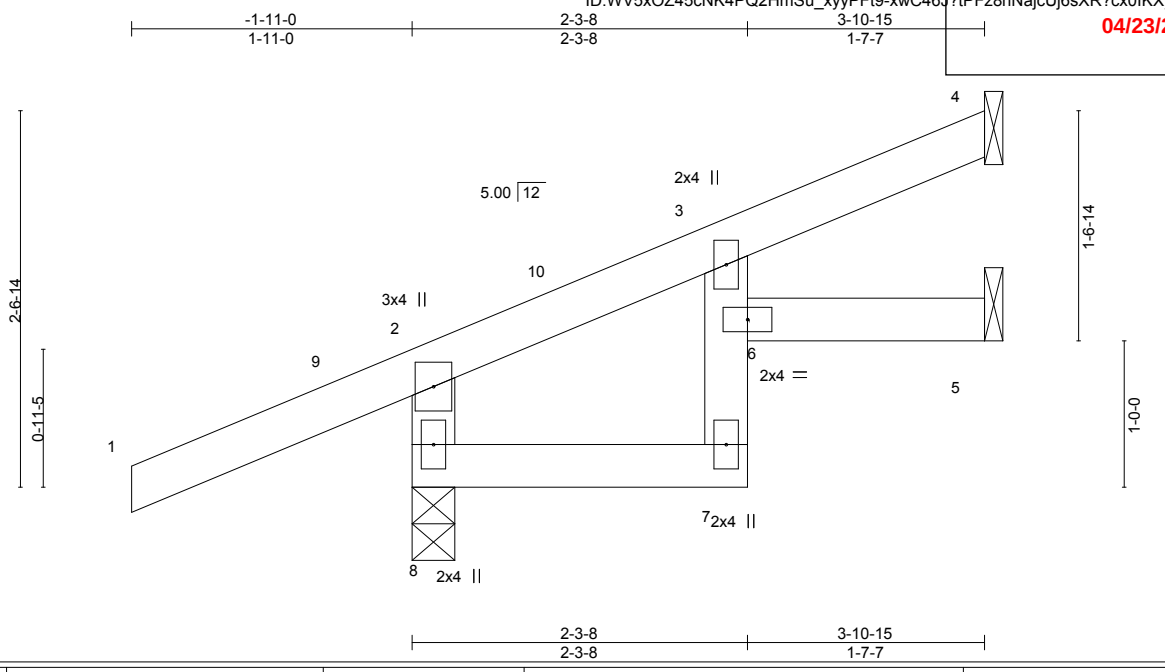
04/23/2021



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.01	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							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 or 3-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=75(LC 12)
Max Uplift 8=-64(LC 8), 4=-36(LC 12), 5=-7(LC 12)
Max Grav 8=351(LC 1), 4=88(LC 1), 5=54(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-313/203

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 8, 36 lb uplift at joint 4 and 7 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	J45732400
2742340	J5	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:23 2021 Page 1
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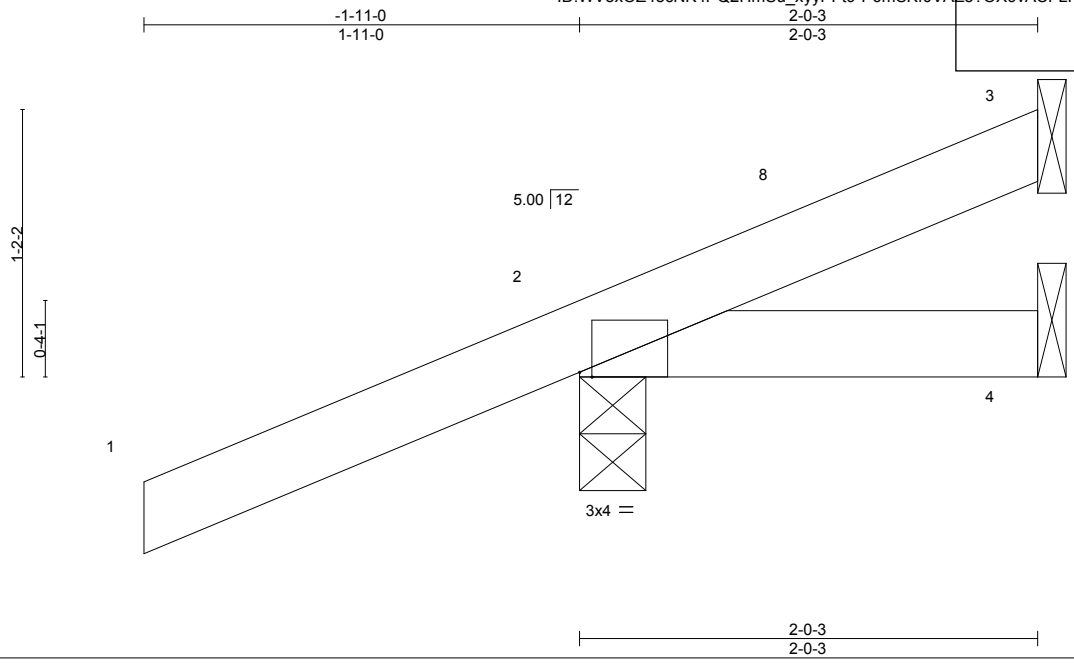

Plate Offsets (X,Y)-- [2:0-0-10,Edge]

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	0.25	Vert(LL)	0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-0-3 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=-10(LC 12), 2=-83(LC 8), 4=-3(LC 1)
Max Grav 3=25(LC 1), 2=288(LC 1), 4=25(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 1-11-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 3, 83 lb uplift at joint 2 and 3 lb uplift at joint 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.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J6	Jack-Open	7	1	Job Reference (optional)

I45732401

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:23 2021 Page 1
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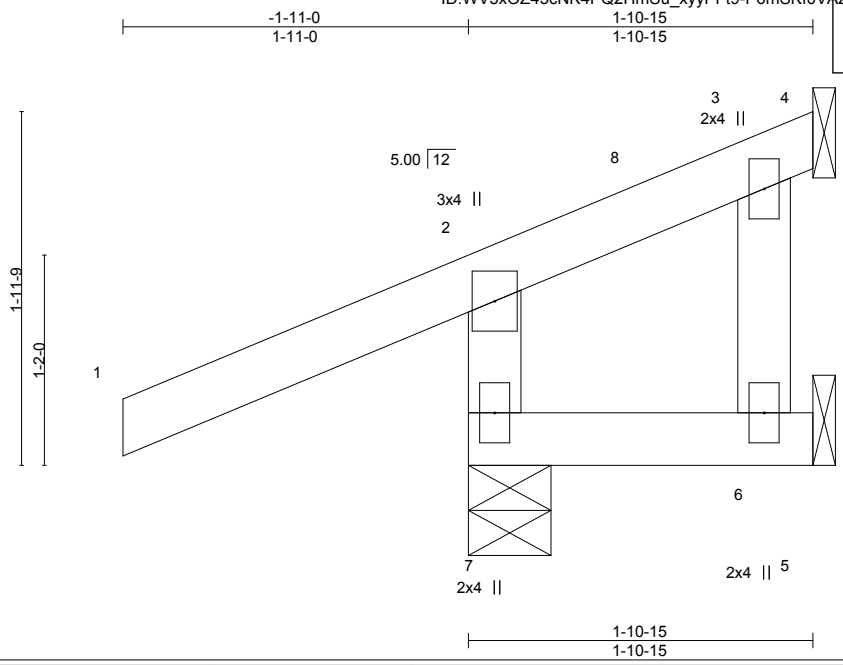

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	0.00	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 9 lb	FT = 20%

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

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

REACTIONS. (size) 7=0-5-8, 4=Mechanical, 5=Mechanical
Max Horz 7=50(LC 11)
Max Uplift 7=-73(LC 8), 4=-15(LC 12), 5=-40(LC 1)
Max Grav 7=308(LC 1), 4=34(LC 1), 5=21(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-277/212

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 1-10-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 7, 15 lb uplift at joint 4 and 40 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J7	MONO TRUSS	2	1	Job Reference (optional)

I45732402

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:30 2021 Page 1
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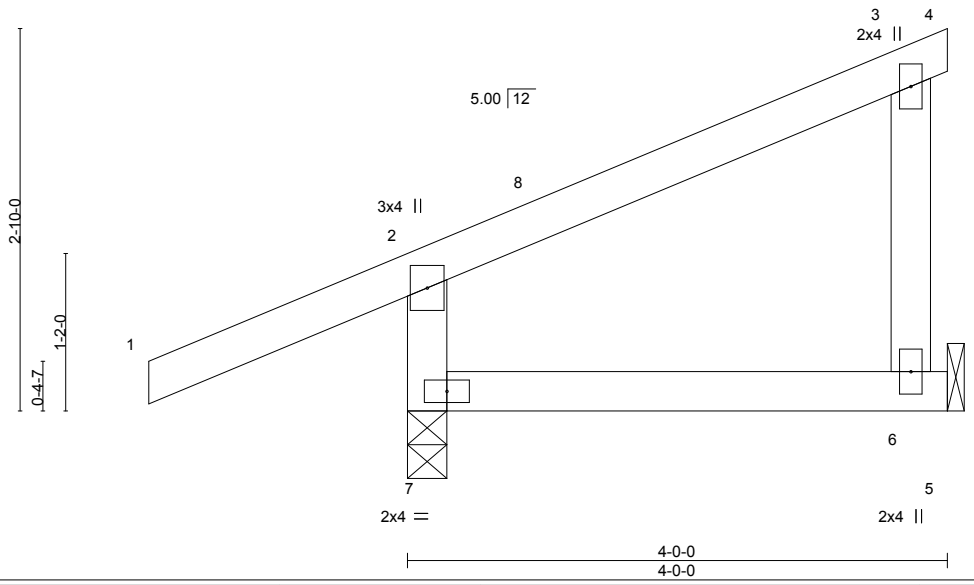

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.01	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 15 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 4-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 7=0-3-8
Max Horz 7=74(LC 12)
Max Uplift 6=-51(LC 12), 7=-58(LC 8)
Max Grav 6=131(LC 1), 7=347(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-306/207

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 4-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 6 and 58 lb uplift at joint 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732403
2742340	J8	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:03:30 2021 Page 1
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3-0-3

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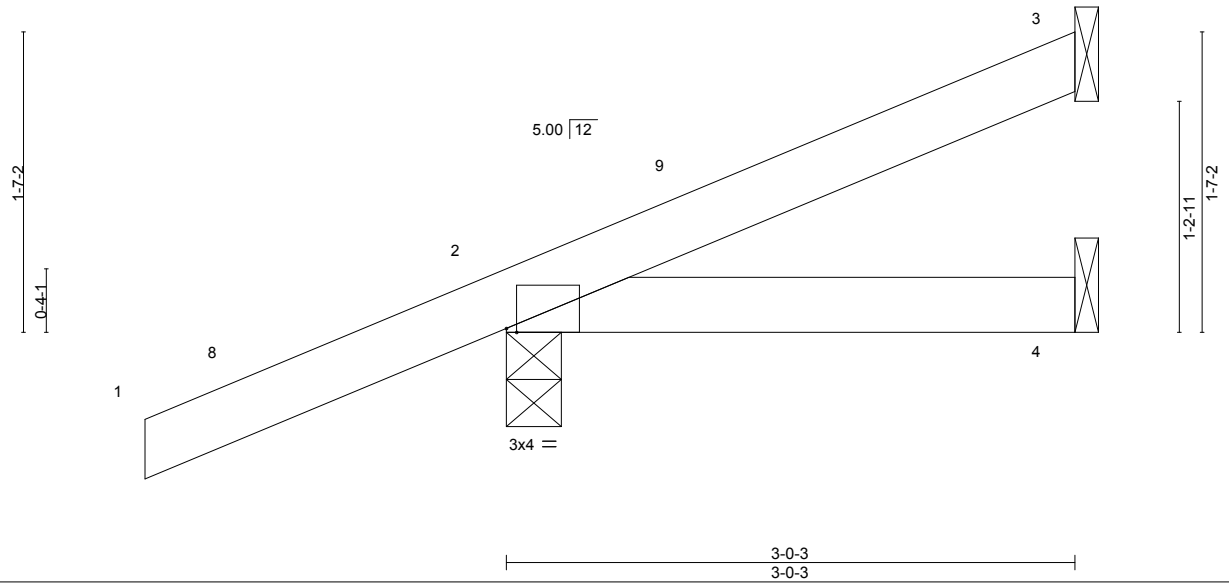

3-0-3
3-0-3

Plate Offsets (X,Y)-- [2:0-0-10,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)	-0.00	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 10 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-0-3 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=70(LC 12)
Max Uplift 3=-27(LC 12), 2=-73(LC 8)
Max Grav 3=67(LC 1), 2=311(LC 1), 4=47(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 2-11-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 3 and 73 lb uplift at joint 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.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J9	JACK-OPEN	4	1	Job Reference (optional)

I45732404

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:31 2021 Page 1
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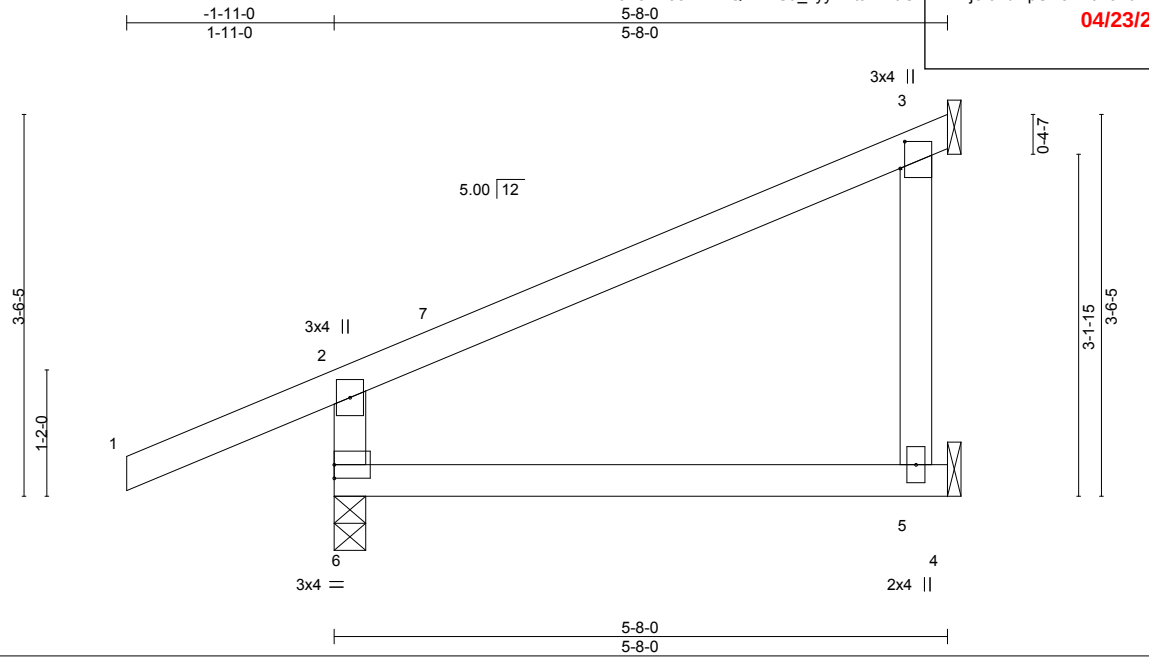

Plate Offsets (X,Y)-- [3:0-3-0,0-0-8]

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	0.33	Vert(LL)	0.04	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.07	5-6	>882	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.04	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 20 lb	FT = 20%

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

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

REACTIONS. (size) 6=0-3-8, 5=Mechanical, 3=Mechanical
Max Horz 6=95(LC 12)
Max Uplift 6=-58(LC 12), 3=-74(LC 12)
Max Grav 6=408(LC 1), 5=108(LC 3), 3=153(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-357/223

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 5-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 6 and 74 lb uplift at joint 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.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J10	Jack-Closed Girder	1	1	Job Reference (optional)

I45732405

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:15 2021 Page 1
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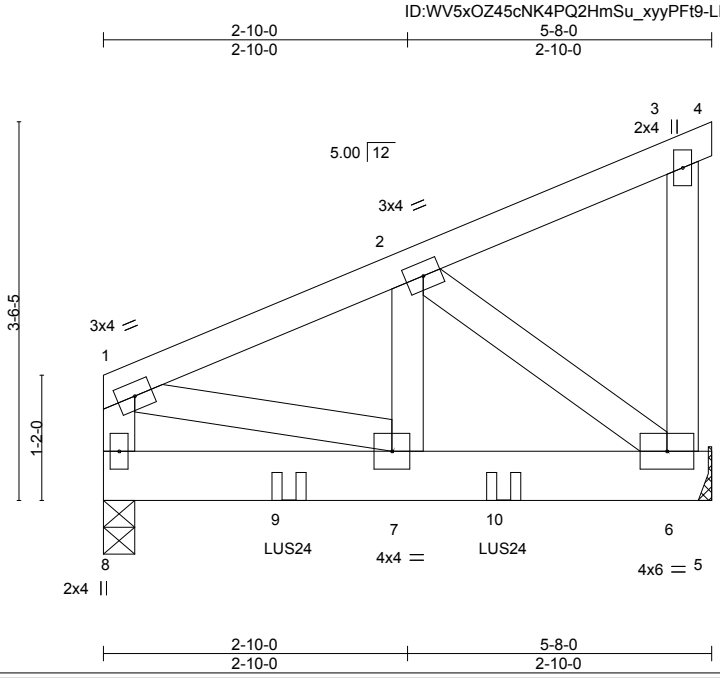

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.01	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.02	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 29 lb	FT = 20%

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

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

REACTIONS. (size) 8=0-3-8, 6=Mechanical
Max Horz 8=117(LC 7)
Max Uplift 8=-109(LC 8), 6=-140(LC 8)
Max Grav 8=797(LC 1), 6=790(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-617/94, 1-2=-824/114
BOT CHORD 6-7=-139/739
WEBS 1-7=-92/775, 2-7=-85/657, 2-6=-931/175

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 8 and 140 lb uplift at joint 6.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) 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 1-8-12 from the left end to 3-8-12 to connect truss(es) to front face of bottom chord.
7) Fill all nail holes where hanger is in contact with lumber.
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, 3-4=-20, 5-8=-20
Concentrated Loads (lb)
Vert: 9=-552(F) 10=-552(F)

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J11	Jack-Closed Girder	1	1	Job Reference (optional)

I45732406

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:41:15 2021 Page 1
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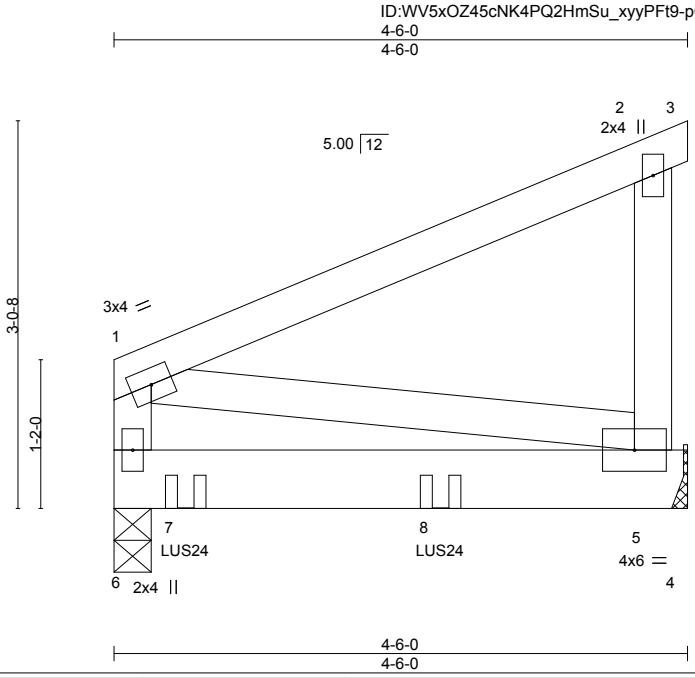

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.03	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.06	5-6	>782	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.01	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 21 lb	FT = 20%

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

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

REACTIONS. (size) 6=0-3-8, 5=Mechanical
Max Horz 6=98(LC 5)
Max Uplift 6=-123(LC 8), 5=-104(LC 8)
Max Grav 6=909(LC 1), 5=579(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 6 and 104 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) 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 0-6-12 from the left end to 2-6-12 to connect truss(es) to back face of bottom chord.
7) Fill all nail holes where hanger is in contact with lumber.
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: 1-2=-70, 2-3=-20, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-558(B) 8=-552(B)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J12	Jack-Open	1	1	Job Reference (optional)

I45732407

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:13 2021 Page 1
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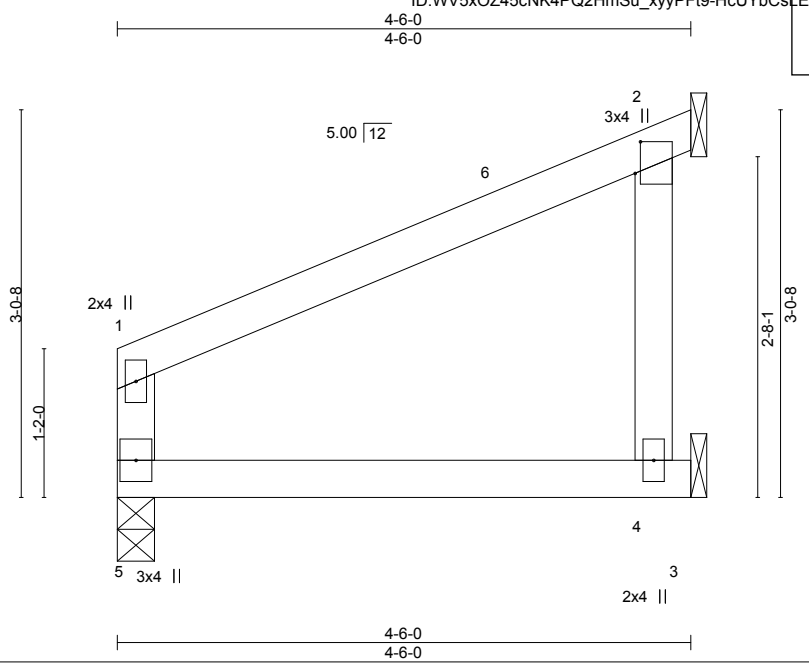

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Plate Offsets (X,Y)-- [2:0-3-0,0-0-8]

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	0.25	Vert(LL)	0.02	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	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) 5=0-3-8, 4=Mechanical, 2=Mechanical
Max Horz 5=59(LC 9)
Max Uplift 5=-7(LC 12), 2=-62(LC 12)
Max Grav 5=183(LC 1), 4=89(LC 3), 2=133(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 5 and 62 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J13	Jack-Open	7	1	Job Reference (optional)

I45732408

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 14 10:03:51 2021 Page 1
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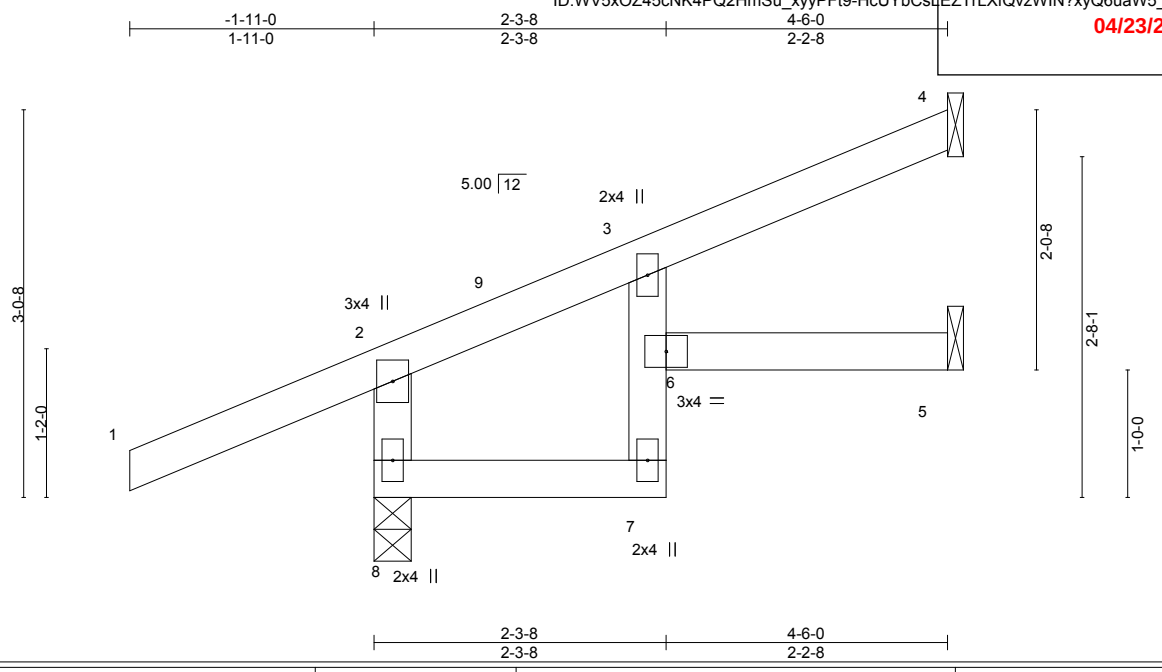

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	0.02	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.03	6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 16 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) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=81(LC 12)
Max Uplift 8=-58(LC 8), 4=-46(LC 12), 5=-9(LC 12)
Max Grav 8=372(LC 1), 4=107(LC 1), 5=67(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-327/205

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 4-5-4 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 58 lb uplift at joint 8, 46 lb uplift at joint 4 and 9 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J14	Jack-Open	2	1	Job Reference (optional)

I45732409

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:17 2021 Page 1
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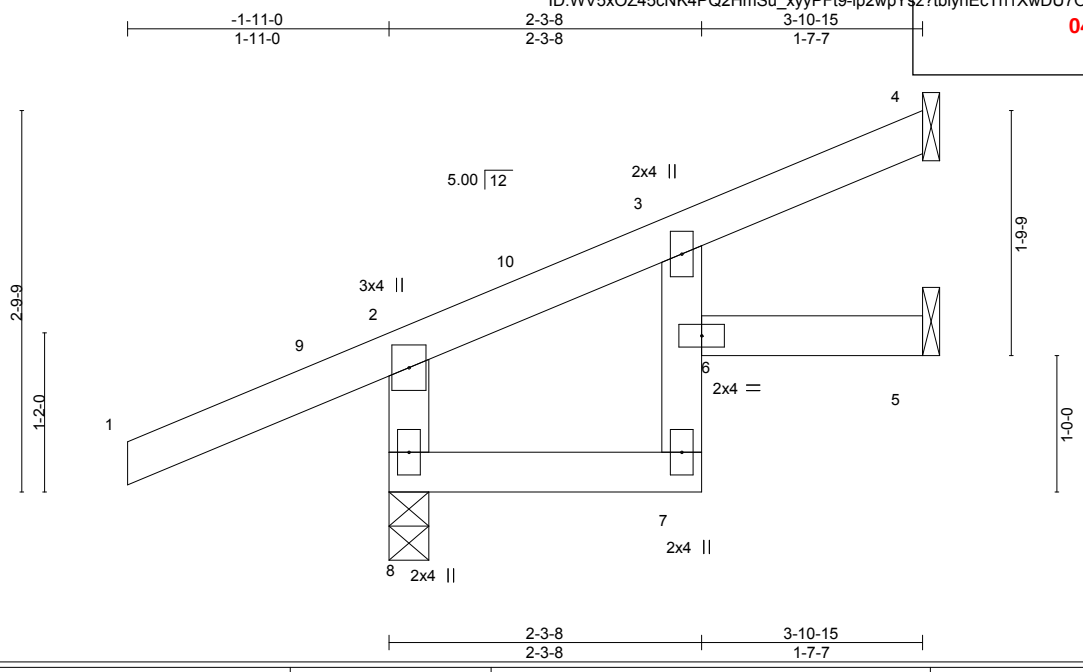


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.01	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 14 lb	FT = 20%

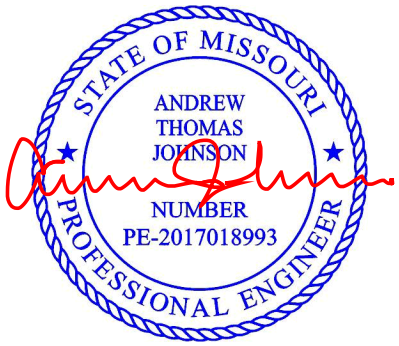
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=72(LC 12)
Max Uplift 8=-60(LC 8), 4=-37(LC 12), 5=-10(LC 12)
Max Grav 8=351(LC 1), 4=89(LC 1), 5=54(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-313/203

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 8, 37 lb uplift at joint 4 and 10 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J15	Jack-Open	1	1	Job Reference (optional)

I45732410

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 01 18:02:55 Page 1
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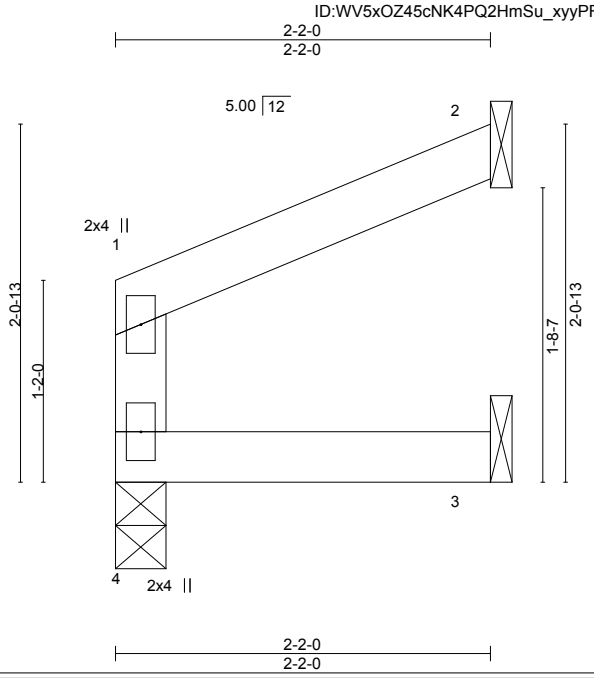


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	-0.00	4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	3-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 6 lb	FT = 20%

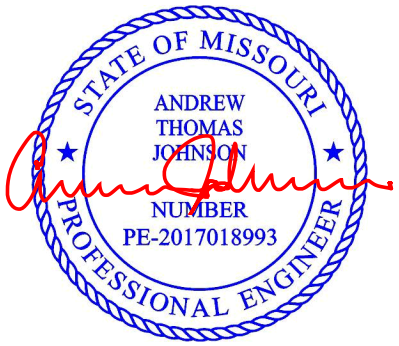
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=38(LC 9)
Max Uplift 2=-33(LC 12), 3=-1(LC 9)
Max Grav 4=88(LC 1), 2=65(LC 1), 3=38(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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 33 lb uplift at joint 2 and 1 lb uplift at joint 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.



April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J16	Jack-Open	1	1	Job Reference (optional)

I45732411

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LTR SUMMIT, MISSOURI

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 07:40:13 2021 Page 1
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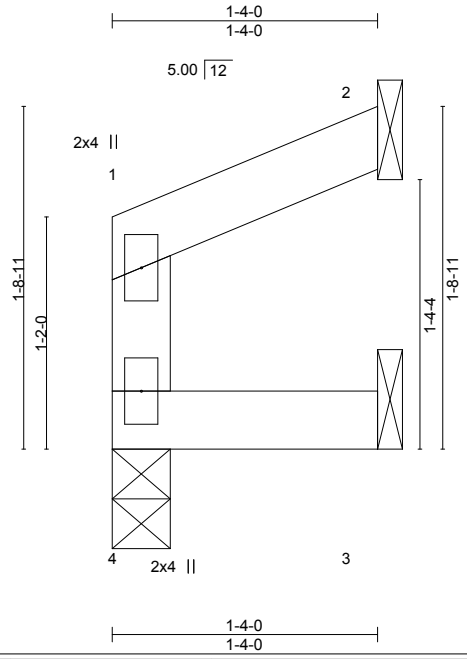

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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
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TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							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 1-4-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=30(LC 9)
Max Uplift 2=-22(LC 12), 3=-5(LC 9)
Max Grav 4=53(LC 1), 2=39(LC 1), 3=23(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 2 and 5 lb uplift at joint 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.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J17	Jack-Open	10	1	Job Reference (optional)

I45732412

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 14 11:40:13 2021 Page 1
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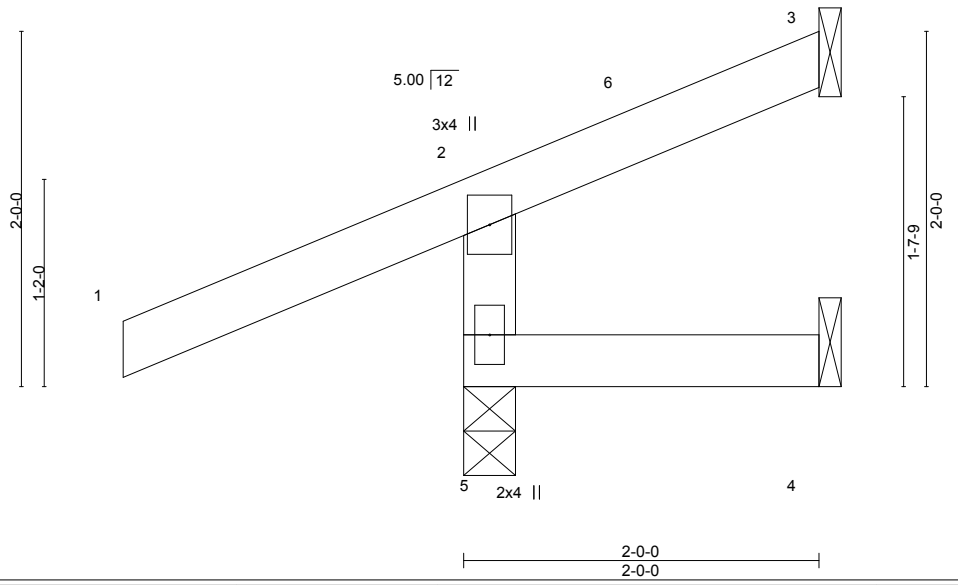

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							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 2-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=53(LC 9)
Max Uplift 5=-71(LC 8), 3=-18(LC 12), 4=-3(LC 1)
Max Grav 5=308(LC 1), 3=5(LC 22), 4=29(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-269/202

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 1-11-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 71 lb uplift at joint 5, 18 lb uplift at joint 3 and 3 lb uplift at joint 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.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J18	Jack-Open	2	1	Job Reference (optional)

I45732413

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:03:51 2021 Page 1
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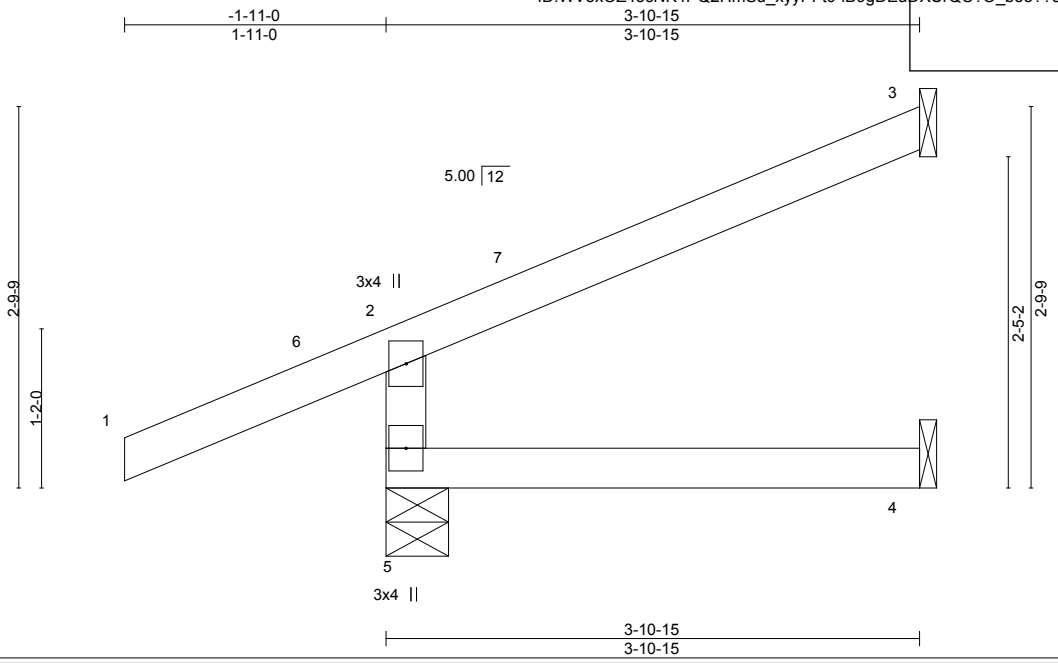

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 13 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 3-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-5-8, 3=Mechanical, 4=Mechanical
Max Horz 5=72(LC 12)
Max Uplift 5=-60(LC 8), 3=-51(LC 12)
Max Grav 5=351(LC 1), 3=96(LC 1), 4=67(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-308/209

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 5 and 51 lb uplift at joint 3.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J19	Jack-Open	8	1	Job Reference (optional)

I45732414

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:41:20 2021 Page 1
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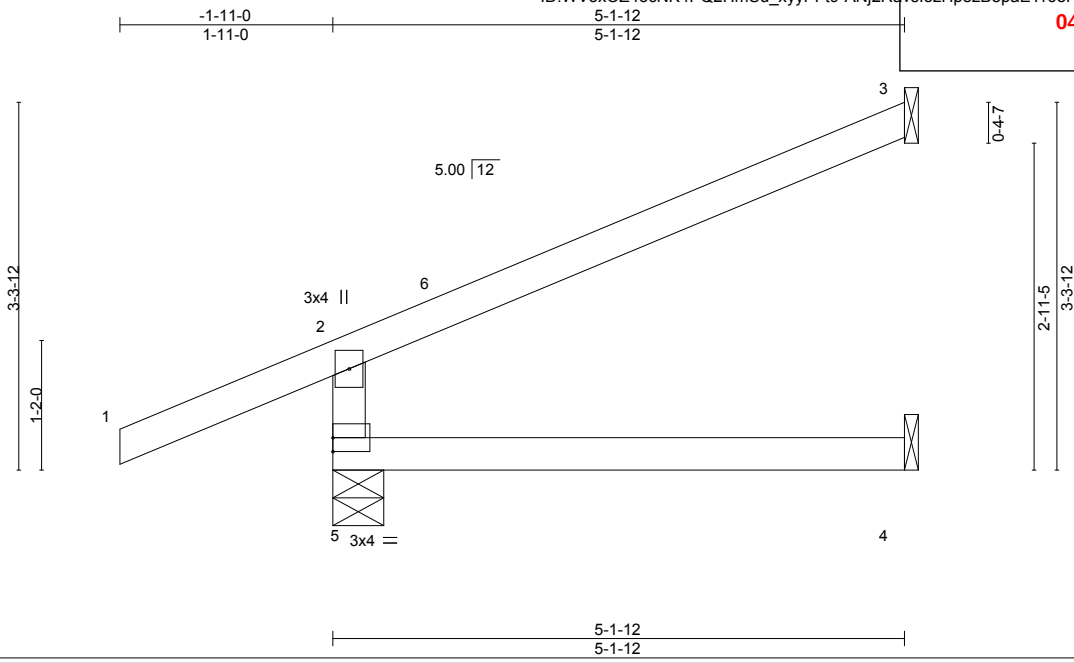

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.03	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.06	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.04	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 16 lb	FT = 20%

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

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

REACTIONS. (size) 5=0-5-8, 3=Mechanical, 4=Mechanical
Max Horz 5=91(LC 12)
Max Uplift 5=-58(LC 8), 3=-70(LC 12)
Max Grav 5=397(LC 1), 3=143(LC 1), 4=90(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-347/222

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 5-1-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 5 and 70 lb uplift at joint 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.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J20	Roof Special Girder	1	1	Job Reference (optional)

I45732415

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:21 2021 Page 1
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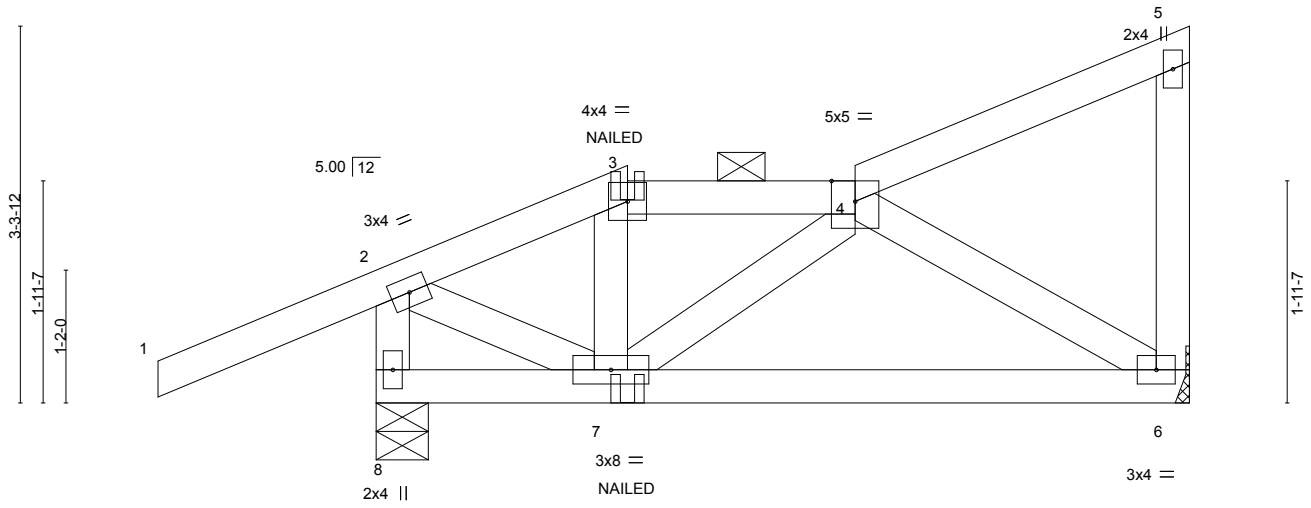

2-2-8 2-2-8 | 4-2-8 2-0-0 | 7-1-12 2-11-4

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	0.34	Vert(LL)	-0.02	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.04	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 33 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 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 8=0-5-8
Max Horz 8=127(LC 5)
Max Uplift 6=-61(LC 8), 8=-91(LC 8)
Max Grav 6=283(LC 1), 8=464(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-271/32, 2-8=-466/89
WEBS 4-6=-275/85

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 6 and 91 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 6-8=-20
Concentrated Loads (lb)
Vert: 7=14(B)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J21	Half Hip	1	1	Job Reference (optional)

I45732416

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 17:40:22 2021 Page 1
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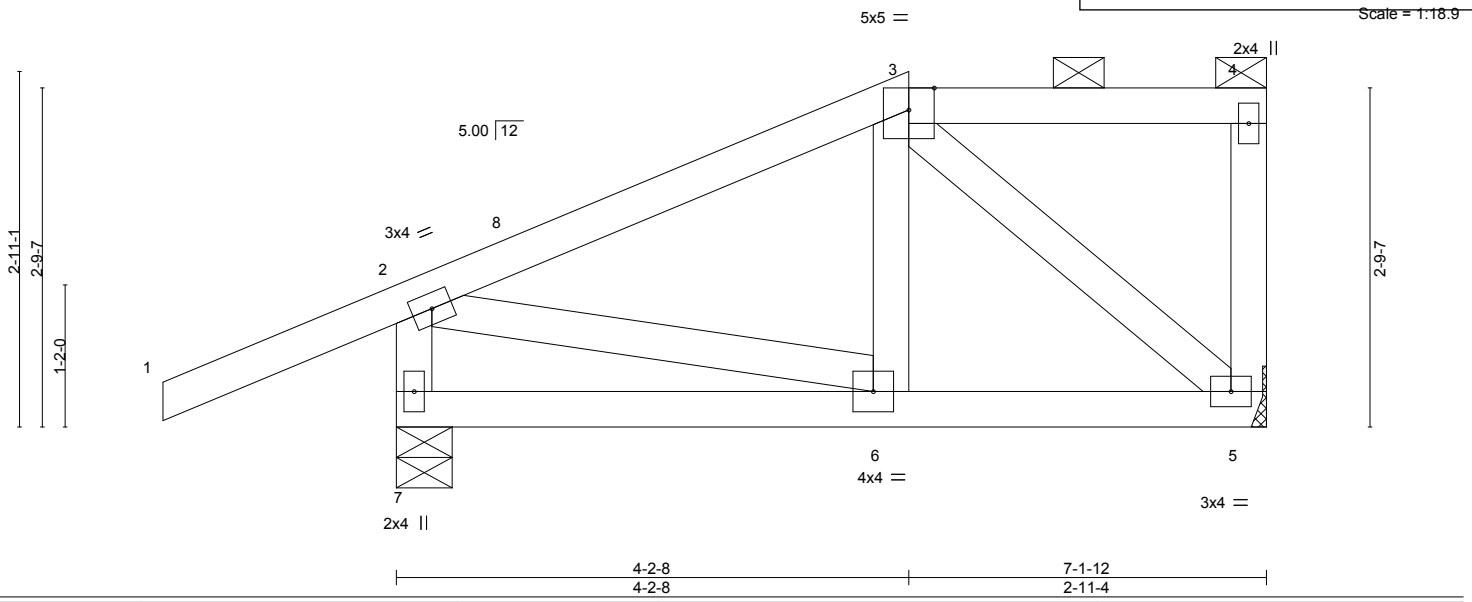


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.01	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 33 lb	FT = 20%

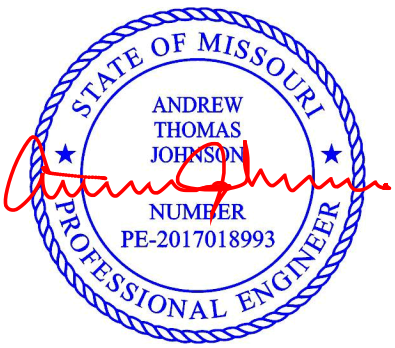
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 7=0-5-8, 5=Mechanical
Max Horz 7=109(LC 9)
Max Uplift 7=-87(LC 8), 5=-57(LC 9)
Max Grav 7=475(LC 1), 5=287(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-268/80, 2-7=-442/247
WEBS 3-5=-250/154

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 4-2-8, Exterior(2E) 4-2-8 to 7-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 7 and 57 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J22	Half Hip	1	1	Job Reference (optional)

I45732417

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 01 14:07:23 2021 Page 1
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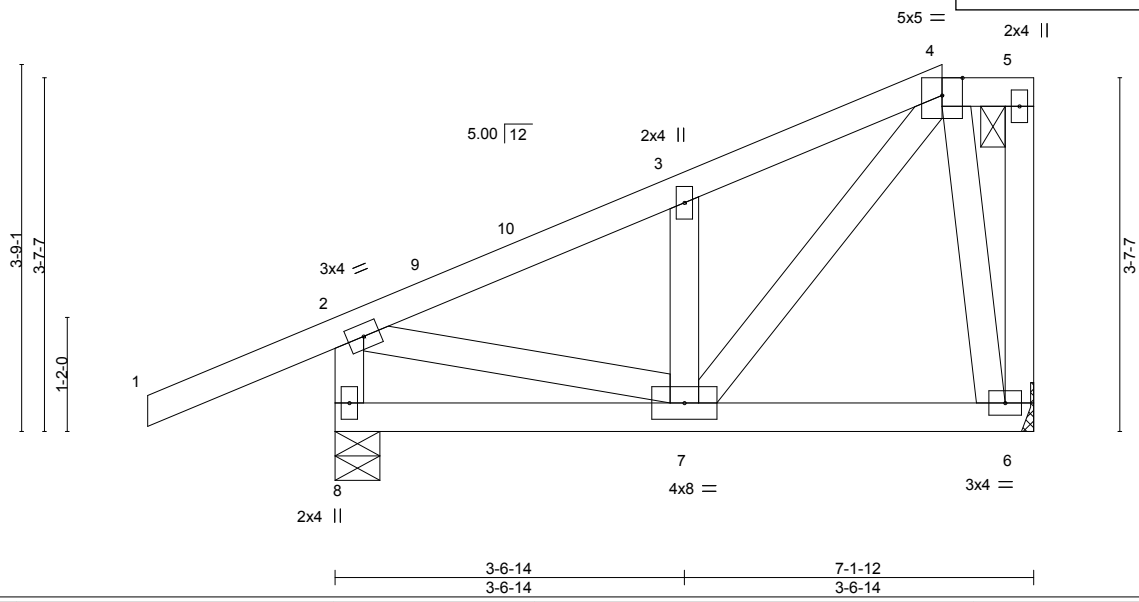

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.01	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 38 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, and 2-0-0 oc purlins: 4-5.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 6=Mechanical, 8=0-5-8
Max Horz 8=142(LC 9)
Max Uplift 6=-53(LC 9), 8=-86(LC 12)
Max Grav 6=287(LC 1), 8=475(LC 1)

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

TOP CHORD	2-3=-296/69, 3-4=-265/103, 2-8=-446/234
BOT CHORD	7-8=-253/172
WEBS	4-7=-178/261

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 6-2-8, Exterior(2E) 6-2-8 to 7-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 6 and 86 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732418
2742340	J23	Jack-Partial	2	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 14 07:23:35 2021 Page 1
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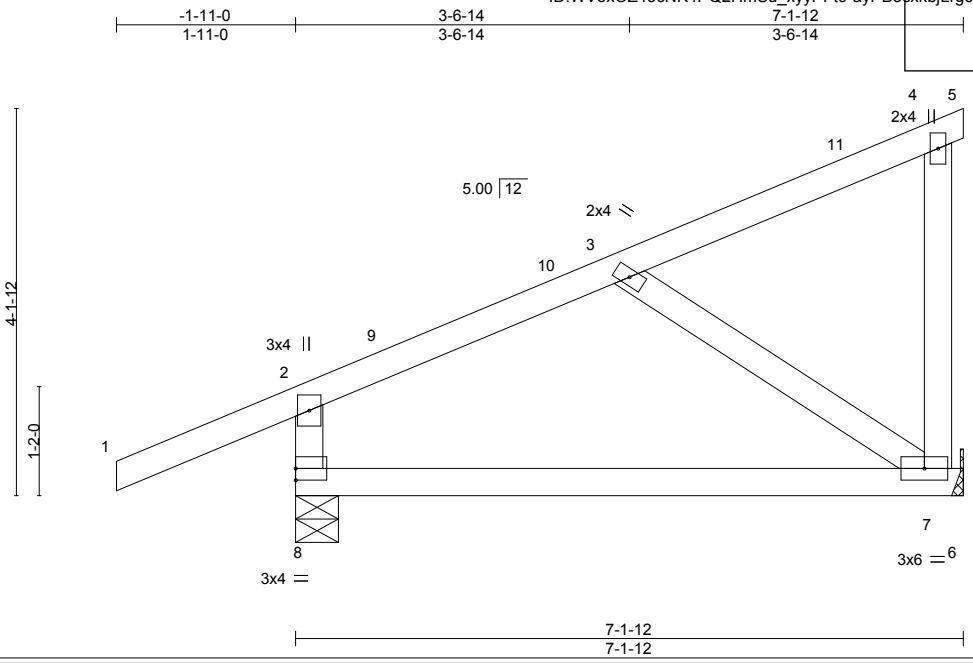

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.08	7-8	>961	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.16	7-8	>507	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 29 lb	FT = 20%

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

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

REACTIONS. (size) 8=0-5-8, 7=Mechanical
Max Horz 8=116(LC 12)
Max Uplift 8=-64(LC 12), 7=-75(LC 12)
Max Grav 8=469(LC 1), 7=292(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-386/214, 2-3=-253/54

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 7-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 8 and 75 lb uplift at joint 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J24	Half Hip	1	1	Job Reference (optional)

I45732419

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 14:40:24 2021 Page 1
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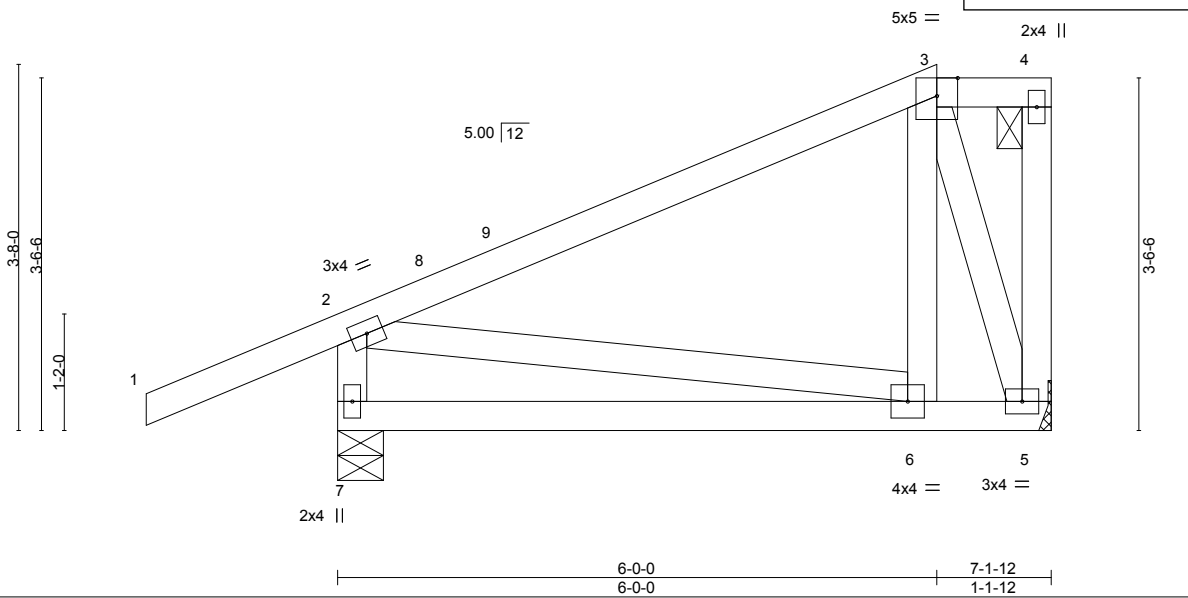

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.03	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.07	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 37 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, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 7=0-5-8, 5=Mechanical
Max Horz 7=138(LC 9)
Max Uplift 7=-87(LC 12), 5=-53(LC 9)
Max Grav 7=475(LC 1), 5=287(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-428/243
WEBS 3-6=0/258, 3-5=-308/147

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 6-0-0, Exterior(2E) 6-0-0 to 7-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 7 and 53 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732420
2742340	J25	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:12 2021 Page 1
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
04/23/2021

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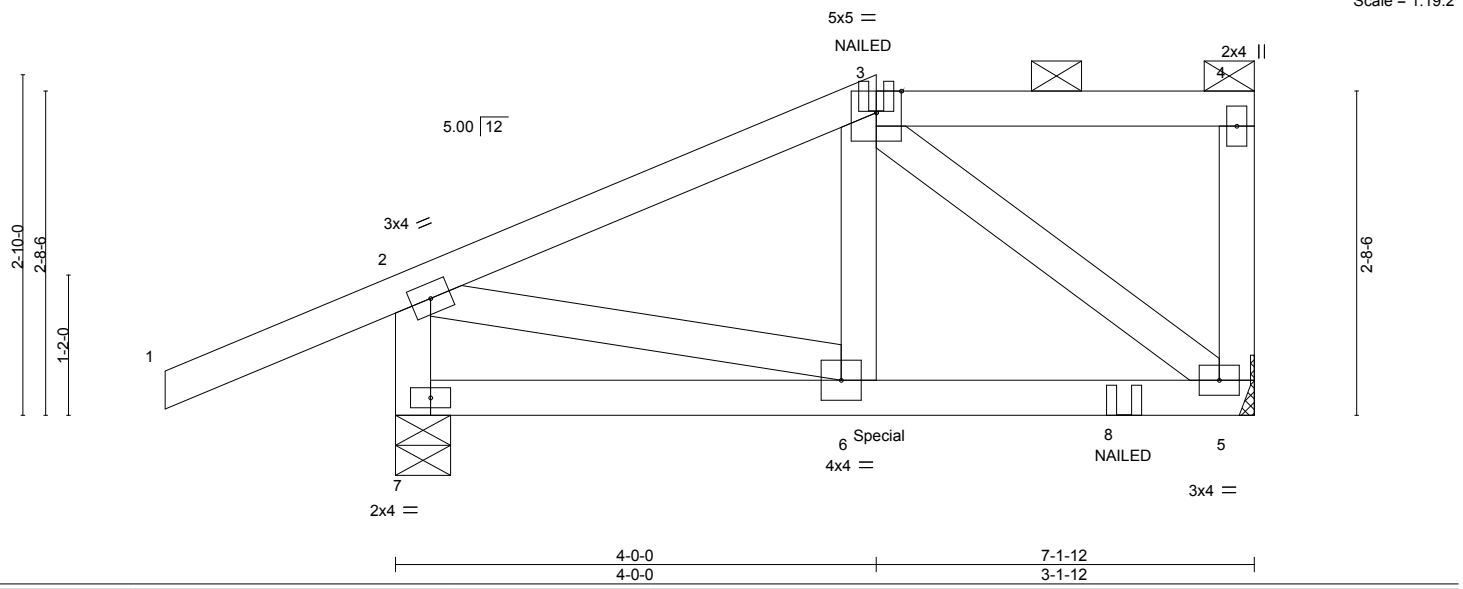

4-0-0 / 4-0-0 | 7-1-12 / 3-1-12

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.01	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.02	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 33 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 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-5-8, 5=Mechanical
Max Horz 7=105(LC 5)
Max Uplift 7=-138(LC 4), 5=-158(LC 5)
Max Grav 7=549(LC 1), 5=453(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-406/119, 2-7=-524/152
BOT CHORD 5-6=-130/307
WEBS 3-5=-397/145, 2-6=-53/327

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 7 and 158 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 122 lb down and 103 lb up at 4-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 6=-122(F) 3=-7(F) 8=-112(F)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J26	Jack-Open	4	1	Job Reference (optional)

I45732421

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:20 2021 Page 1
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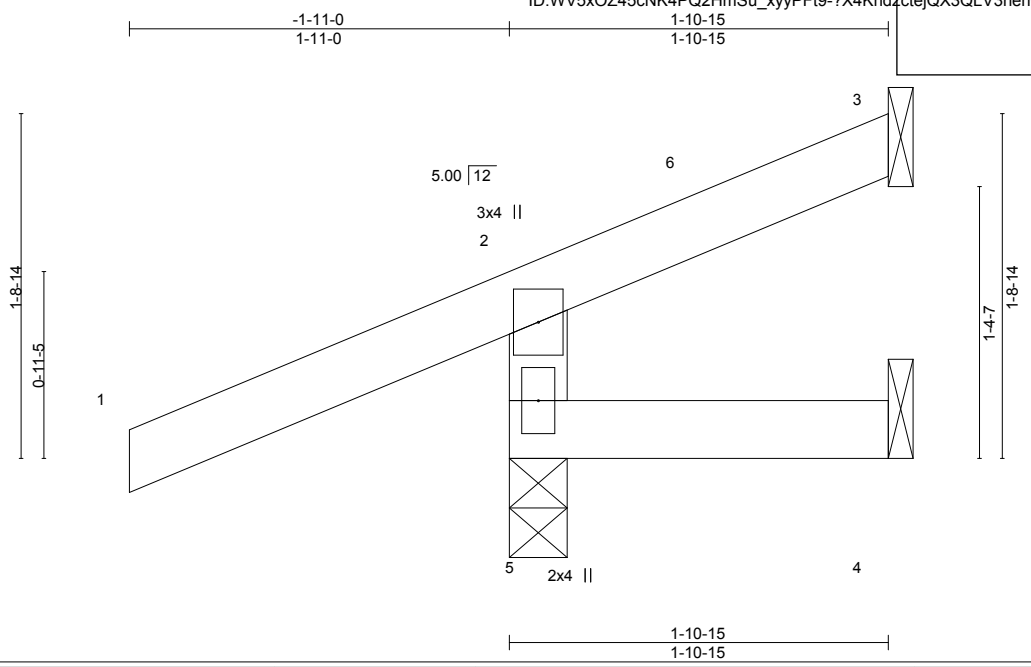

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 8 lb	FT = 20%

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

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=48(LC 9)
Max Uplift 5=-78(LC 8), 3=-14(LC 12), 4=-7(LC 1)
Max Grav 5=308(LC 1), 3=4(LC 17), 4=26(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-266/207

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 1-10-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 5, 14 lb uplift at joint 3 and 7 lb uplift at joint 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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	J27	Jack-Open	4	1	Job Reference (optional)

I45732422

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:20 2021 Page 1
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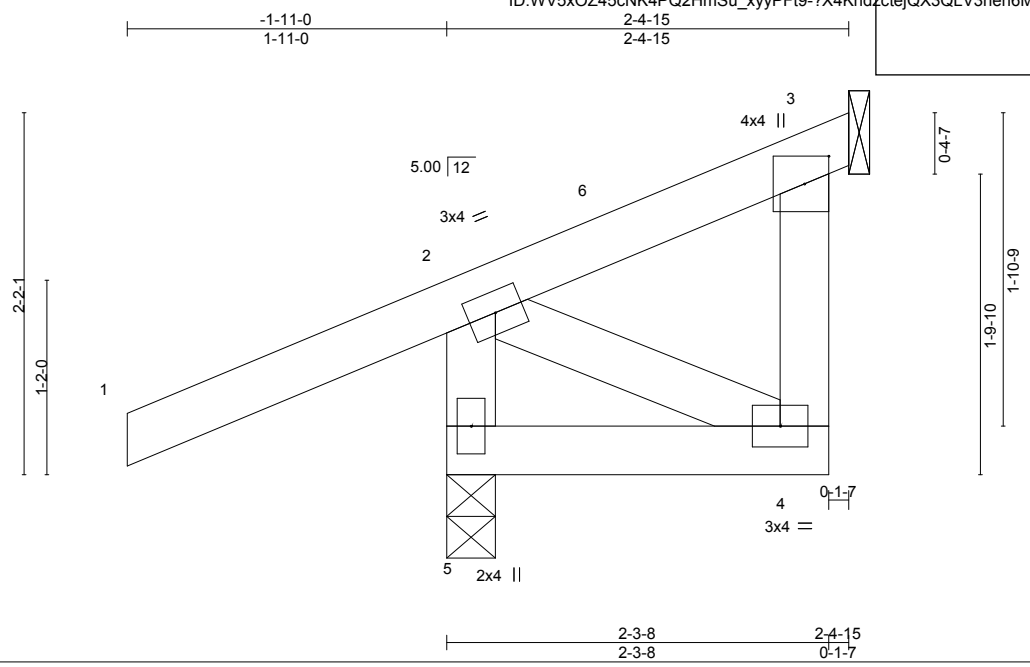

Plate Offsets (X,Y)-- [3:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 13 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-4-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 3=Mechanical
Max Horz 5=52(LC 11)
Max Uplift 5=-70(LC 8), 3=-32(LC 25)
Max Grav 5=309(LC 1), 3=39(LC 3), 3=19(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-289/200

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 2-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 5 and 32 lb uplift at joint 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.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	J45732423
2742340	J28	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:27 2021 Page 1
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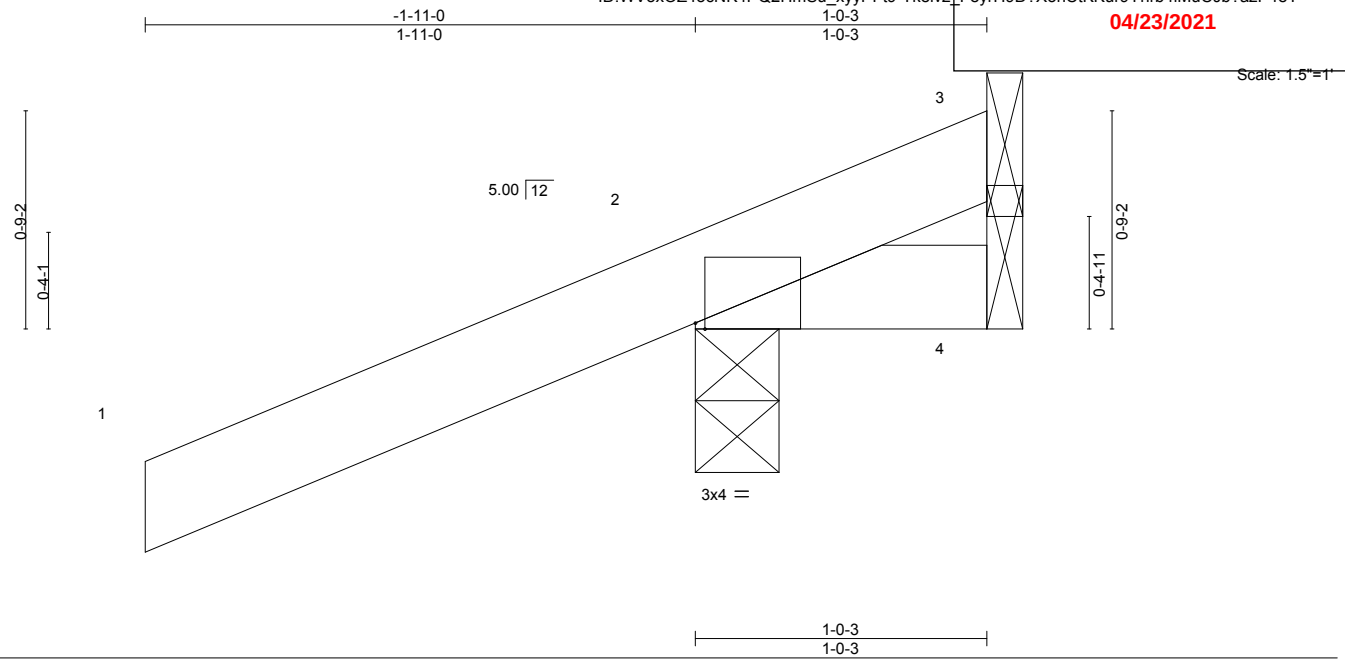

Plate Offsets (X,Y)-- [2:0-0-6,Edge]

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	0.25	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 5 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 1-0-3 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=42(LC 8)
Max Uplift 3=-28(LC 1), 2=-111(LC 8), 4=-55(LC 1)
Max Grav 3=20(LC 8), 2=307(LC 1), 4=34(LC 8)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 3, 111 lb uplift at joint 2 and 55 lb uplift at joint 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.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	L6	GABLE	1	1	J45732424

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:32 2021 Page 1
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

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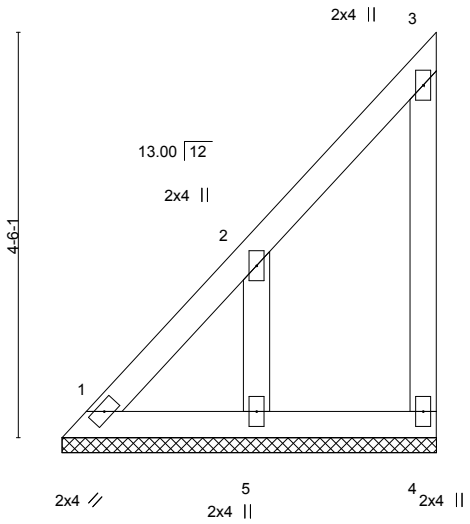

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 18 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 4-1-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-1-15, 4=4-1-15, 5=4-1-15
Max Horz 1=142(LC 9)
Max Uplift 1=-37(LC 8), 4=-50(LC 9), 5=-134(LC 12)
Max Grav 1=116(LC 20), 4=85(LC 19), 5=229(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-254/261

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 4-0-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 37 lb uplift at joint 1, 50 lb uplift at joint 4 and 134 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	LG1	GABLE	1	1	Job Reference (optional)

I45732425

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:32 2021 Page 1
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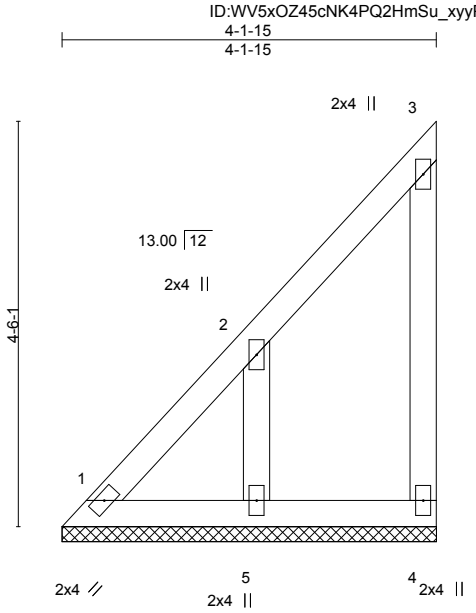

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 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 4-1-15 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-1-15, 4=4-1-15, 5=4-1-15
Max Horz 1=142(LC 9)
Max Uplift 1=-37(LC 8), 4=-50(LC 9), 5=-134(LC 12)
Max Grav 1=116(LC 20), 4=85(LC 19), 5=229(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-254/261

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 4-0-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 37 lb uplift at joint 1, 50 lb uplift at joint 4 and 134 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	LG2	GABLE	1	1	J45732426

Job Reference (optional)

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:33 2021 Page 1
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04/23/2021

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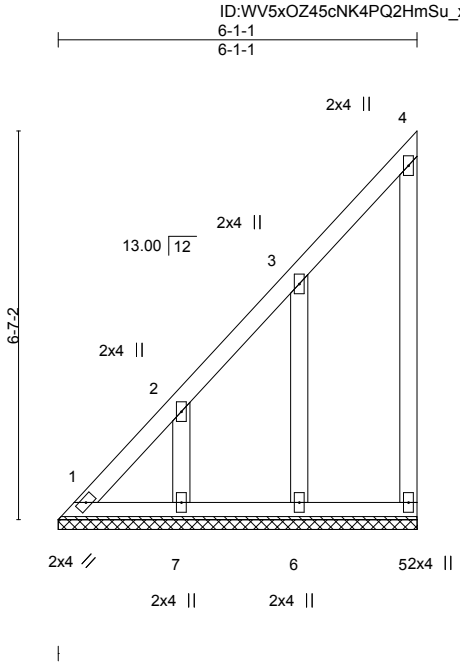

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 30 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 6-1-1.
(lb) - Max Horz 1=217(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 6=-124(LC 12), 7=-123(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6, 7

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-401/403, 2-3=-284/289

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 5-11-5 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) 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, 5 except (jt=lb) 6=124, 7=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.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	LG3	GABLE	2	1	J45732427

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:41:03 2021 Page 1
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Scale = 1:45.9

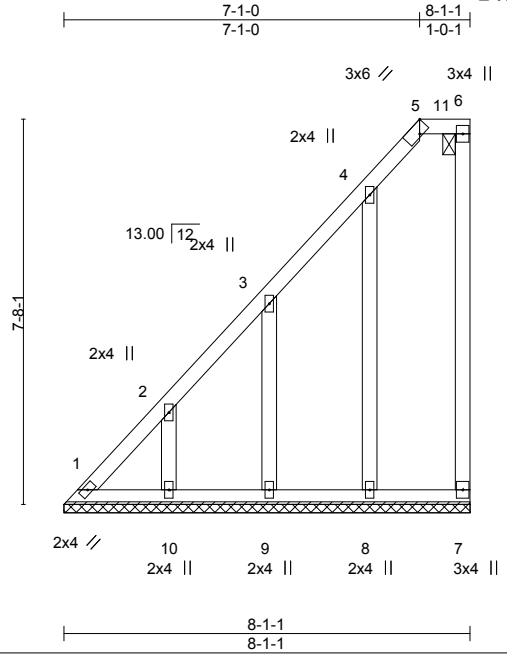

Plate Offsets (X,Y)-- [5:0-2-9,Edge]

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	0.32	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	-0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 43 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, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 8-1-1.
(lb) - Max Horz 1=263(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 8 except 9=-128(LC 12), 10=-122(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 8, 9, 10

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-472/468, 2-3=-356/357, 3-4=-258/272
WEBS 4-8=-296/228

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 7-1-0, Exterior(2E) 7-1-0 to 7-11-5 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) Provide adequate drainage to prevent water ponding.
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, 7, 8 except (jt=lb) 9=128, 10=122.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	LG5	GABLE	1	1	Job Reference (optional)

I45732428

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEES SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:41:03 2021 Page 1
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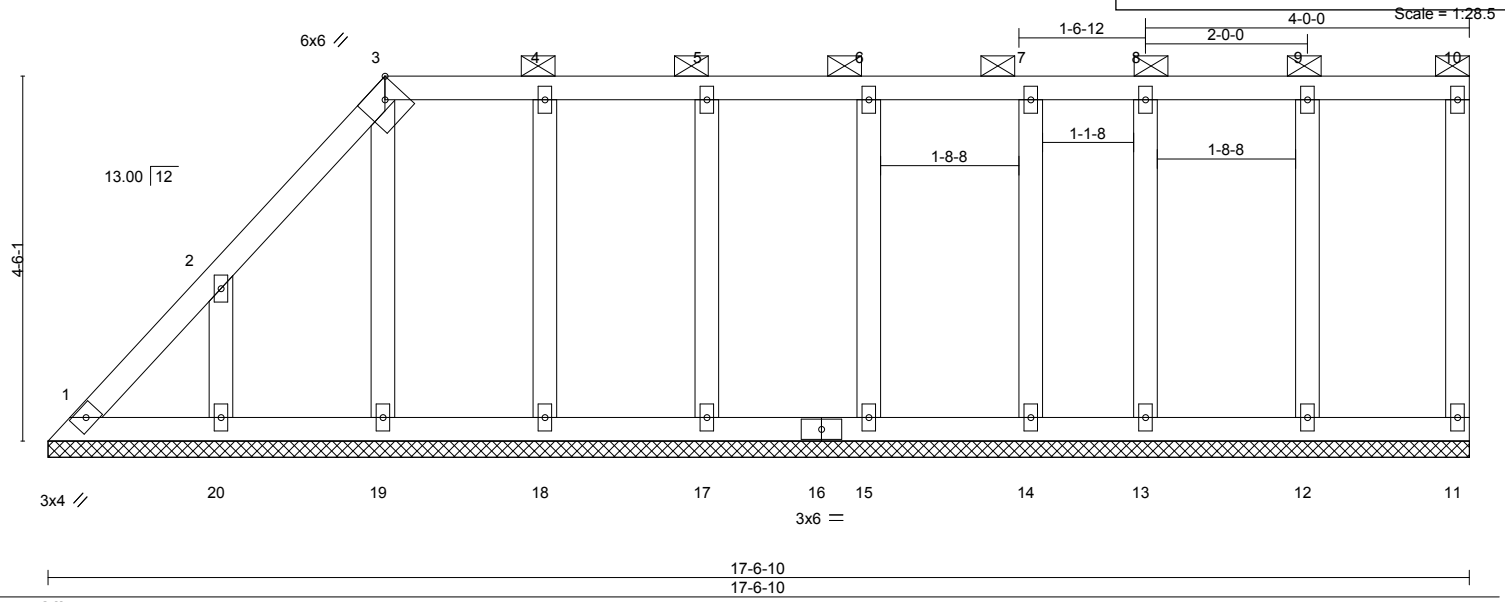

Plate Offsets (X,Y)-- [3:0-2-9,Edge]

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	0.09	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	0.05	Horz(CT)	-0.00	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 80 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, and 2-0-0 oc purlins (6-0-0 max.): 3-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 17-6-10.
(lb) - Max Horz 1=151(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 12, 13, 14, 15, 17, 18, 19 except 20=-138(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 12, 13, 14, 15, 17, 18, 19, 20

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 4-1-15, Exterior(2R) 4-1-15 to 8-1-10, Interior(1) 8-1-10 to 17-4-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 12, 13, 14, 15, 17, 18, 19 except (jt=lb) 20=138.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	LG5A	GABLE	1	1	Job Reference (optional)

I45732429

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:13 2021 Page 1
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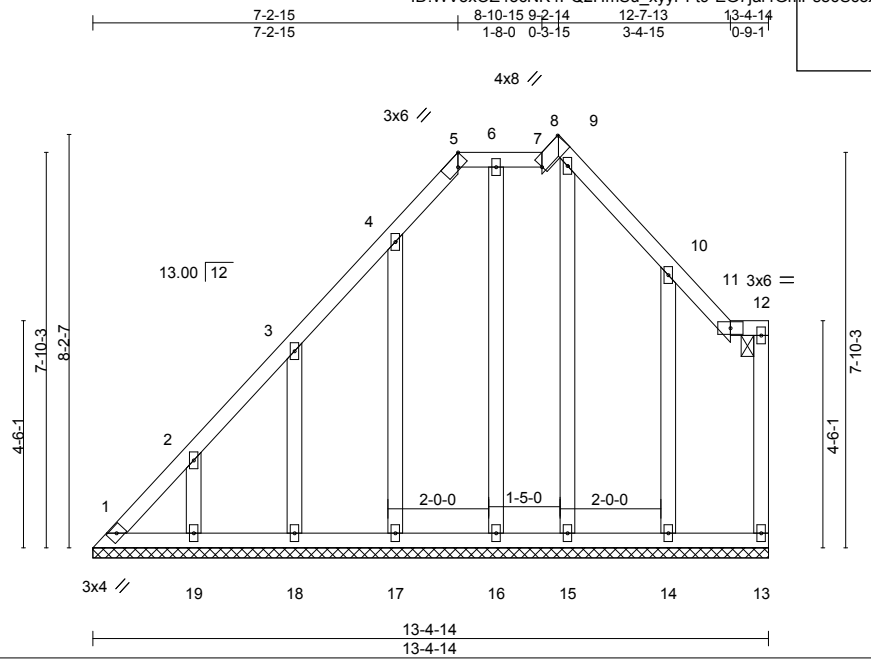

Plate Offsets (X,Y)-- [5:0-2-9,Edge], [7:0-8-1,Edge]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.00	13	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							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 Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7, 11-12.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 13-4-14.
(lb) - Max Horz 1=231(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 13, 17, 16, 15 except 1=-136(LC 8), 19=-118(LC 12), 18=-131(LC 12), 14=-110(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 13, 19, 18, 17, 16, 15, 14

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-275/241

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 7-2-15, Exterior(2E) 7-2-15 to 8-10-15, Interior(1) 8-10-15 to 9-2-14, Exterior(2R) 9-2-14 to 12-2-14, Interior(1) 12-2-14 to 13-3-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 17, 16, 15 except (jt=lb) 1=136, 19=118, 18=131, 14=110.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	LG6	GABLE	1	1	J45732430

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:33 2021 Page 1
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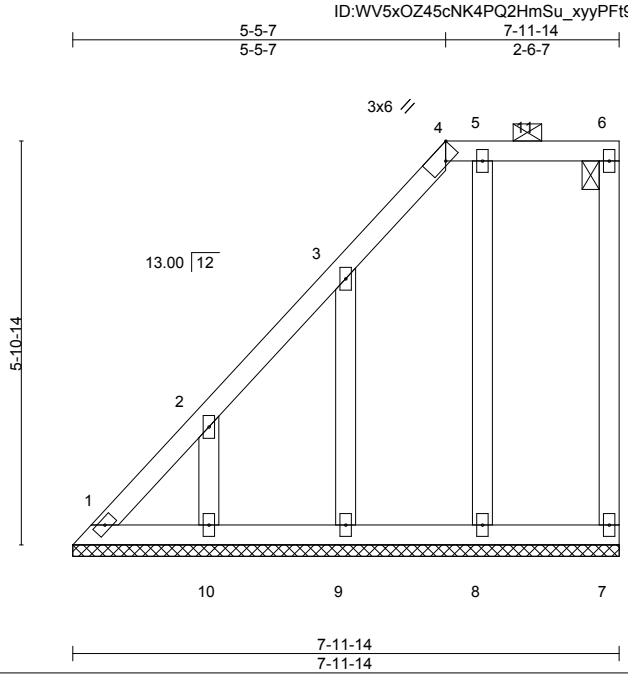

Plate Offsets (X,Y)-- [4:0-2-9,Edge]

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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							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, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 7-11-14.
(lb) - Max Horz 1=200(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 8 except 9=-105(LC 12), 10=-125(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 8, 9, 10

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-354/353, 2-3=-248/254

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 5-5-7, Exterior(2E) 5-5-7 to 7-10-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 8 except (jt=lb) 9=105, 10=125.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	LG7	GABLE	1	1	J45732431

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:37 2021 Page 1
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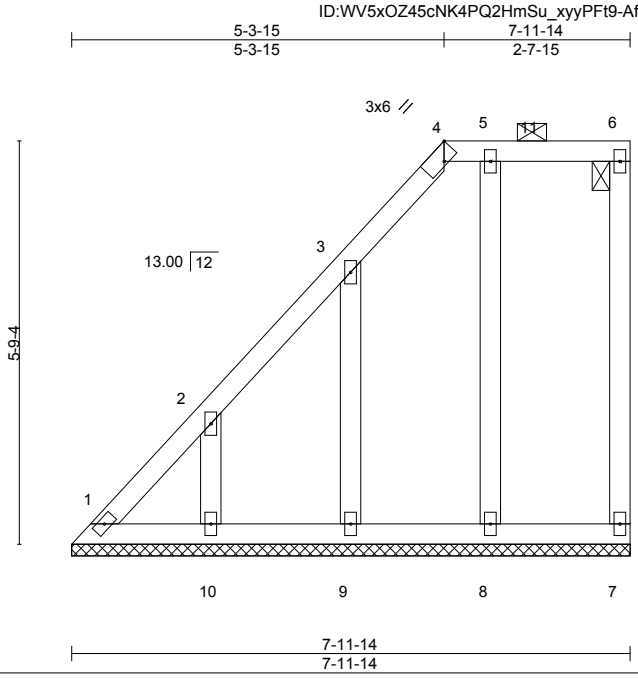

Plate Offsets (X,Y)-- [4:0-2-9,Edge]

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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							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, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 7-11-14.
(lb) - Max Horz 1=196(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 8 except 9=-100(LC 12), 10=-126(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 8, 9, 10

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-344/343

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 5-3-15, Exterior(2E) 5-3-15 to 7-10-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 8 except (jt=lb) 9=100, 10=126.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	LG8	GABLE	1	1	Job Reference (optional)

I45732432

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:33 2021 Page 1
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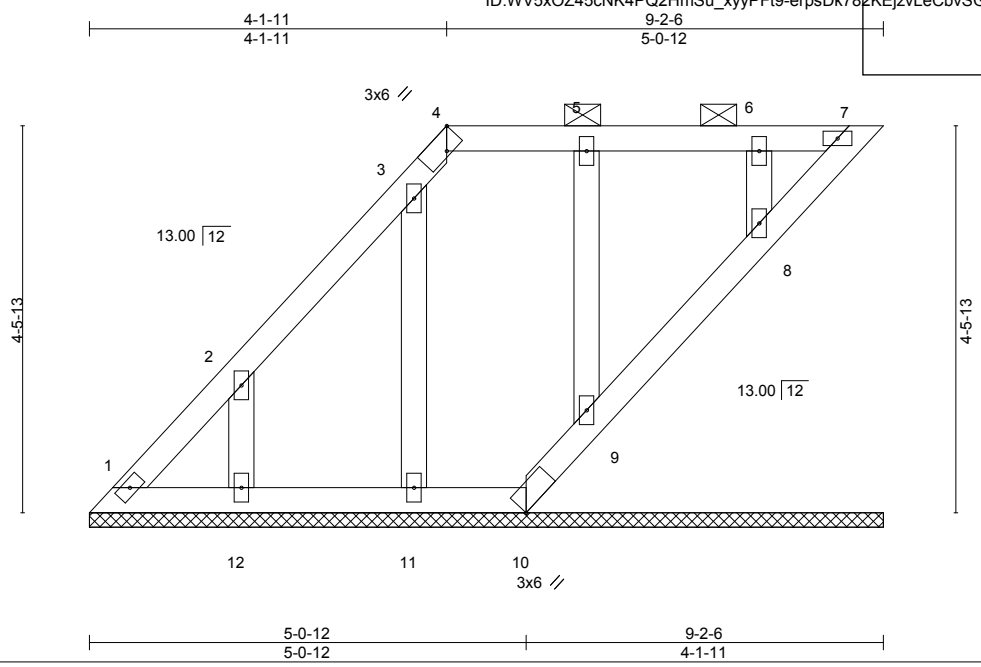

Plate Offsets (X,Y)-- [4:0-2-9,Edge]

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 35 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 7-8.

REACTIONS. All bearings 9-2-6.
(lb) - Max Horz 1=154(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 10, 11, 9, 8 except 12=-123(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 12, 11, 9, 8

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 4-1-11, Exterior(2R) 4-1-11 to 7-1-11, Interior(1) 7-1-11 to 8-10-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 10, 11, 9, 8 except (jt=lb) 12=123.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 9, 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732433
2742340	LG9	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:33 2021 Page 1
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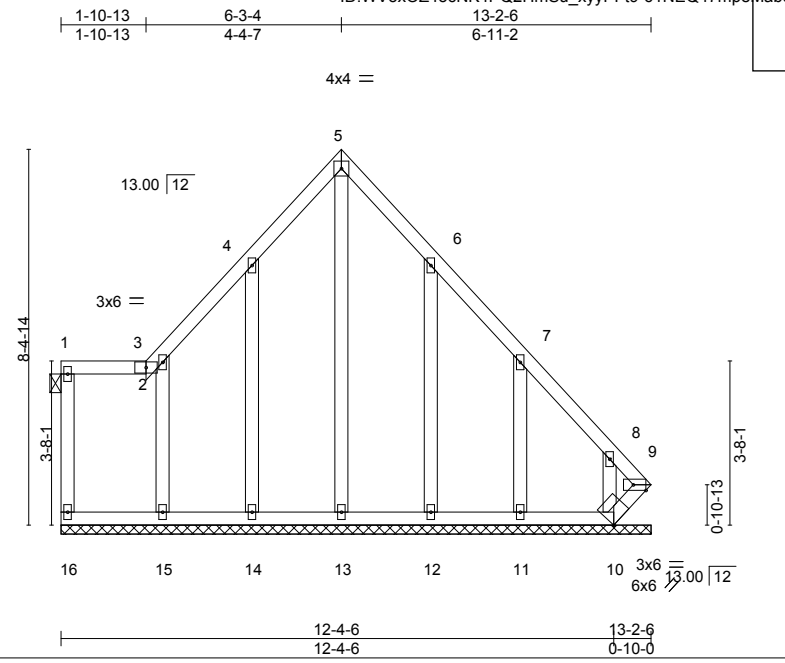

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Plate Offsets (X,Y)-- [9:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 72 lb	FT = 20%

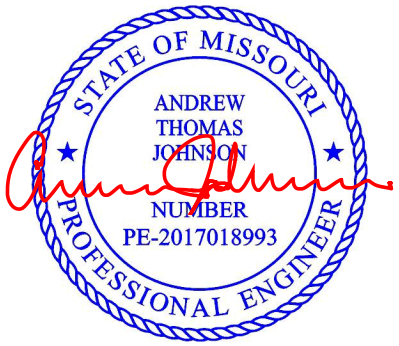
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.

REACTIONS. All bearings 13-2-6.
(lb) - Max Horz 16=-225(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 16, 15 except 9=-358(LC 11), 13=-130(LC 10), 14=-123(LC 12), 12=-118(LC 13), 11=-127(LC 13), 10=-268(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 16, 14, 15, 12, 11 except 9=422(LC 8), 13=261(LC 9), 10=309(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-250/261, 5-6=-250/261, 8-9=-280/250
BOT CHORD 9-10=-256/289
WEBS 5-13=-323/243

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 1-10-13, Interior(1) 1-10-13 to 6-3-4, Exterior(2R) 6-3-4 to 9-3-4, Interior(1) 9-3-4 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
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 15 except (jt=lb) 9=358, 13=130, 14=123, 12=118, 11=127, 10=268.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

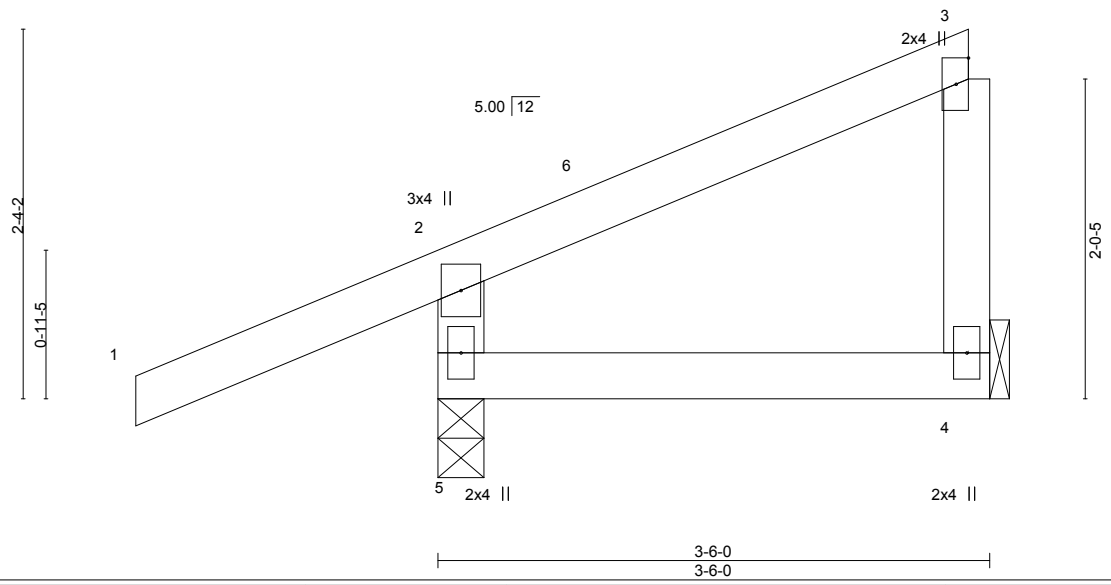


April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M1	Monopitch	3	1	Job Reference (optional)

I45732434



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 13 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 3-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 5=0-3-8
Max Horz 5=93(LC 9)
Max Uplift 4=-28(LC 9), 5=-78(LC 8)
Max Grav 4=98(LC 1), 5=335(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-296/227

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M2	Monopitch	7	1	Job Reference (optional)

I45732435

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:44:02 2021 Page 1
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

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

Scale = 1:13.6

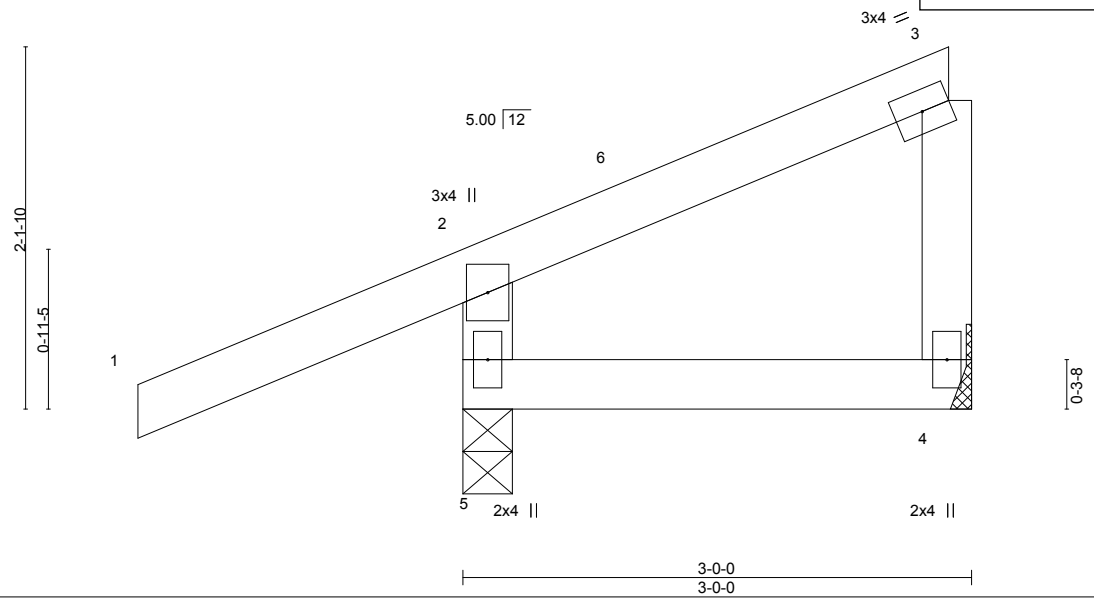

Plate Offsets (X,Y)-- [3:0-0-1,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							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 3-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 4=Mechanical
Max Horz 5=59(LC 12)
Max Uplift 5=-68(LC 8), 4=-26(LC 12)
Max Grav 5=321(LC 1), 4=65(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-284/207

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 2-9-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M3	Roof Special Girder	1	1	Job Reference (optional)

I45732436

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:43 2021 Page 1
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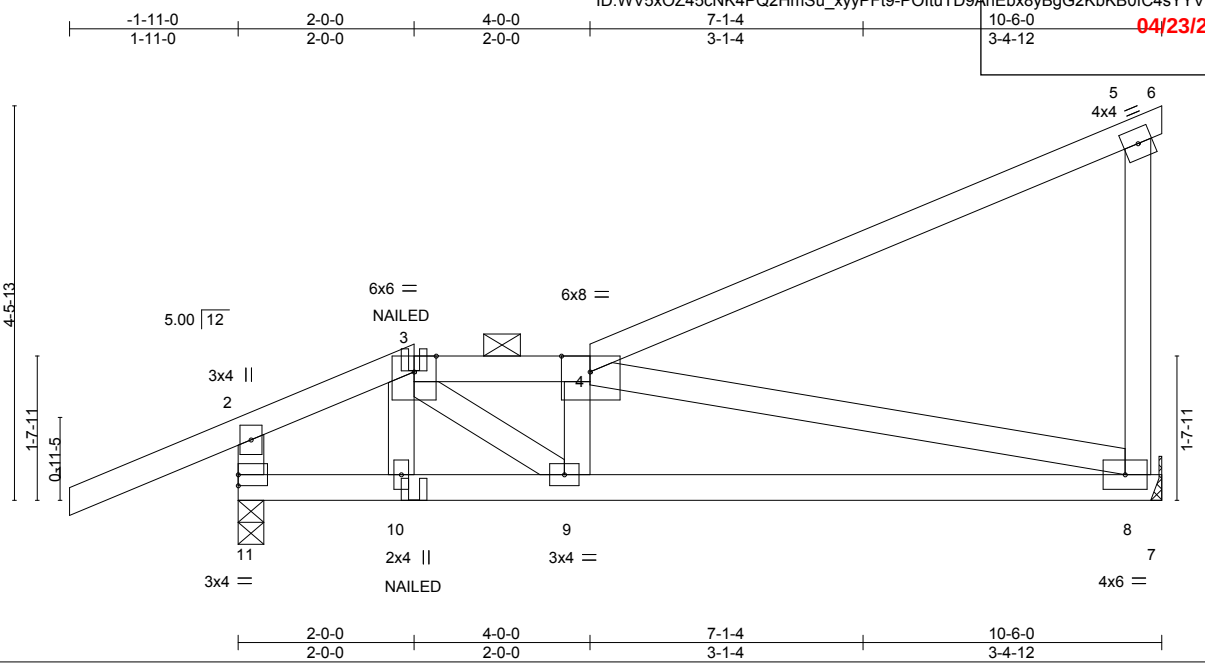

Plate Offsets (X,Y)-- [4:0-3-14,Edge]

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	0.55	Vert(LL)	-0.05	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.10	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.57	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 44 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 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=Mechanical, 11=0-3-8
Max Horz 11=175(LC 7)
Max Uplift 8=-97(LC 8), 11=-107(LC 8)
Max Grav 8=450(LC 1), 11=613(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-385/54, 3-4=-784/103, 2-11=-471/106
BOT CHORD 10-11=-115/287, 9-10=-113/303, 8-9=-140/807
WEBS 3-9=-68/604, 4-8=-774/167

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 11=107.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-20, 7-11=-20

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732437
2742340	M4	Monopitch	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:47 2021 Page 1
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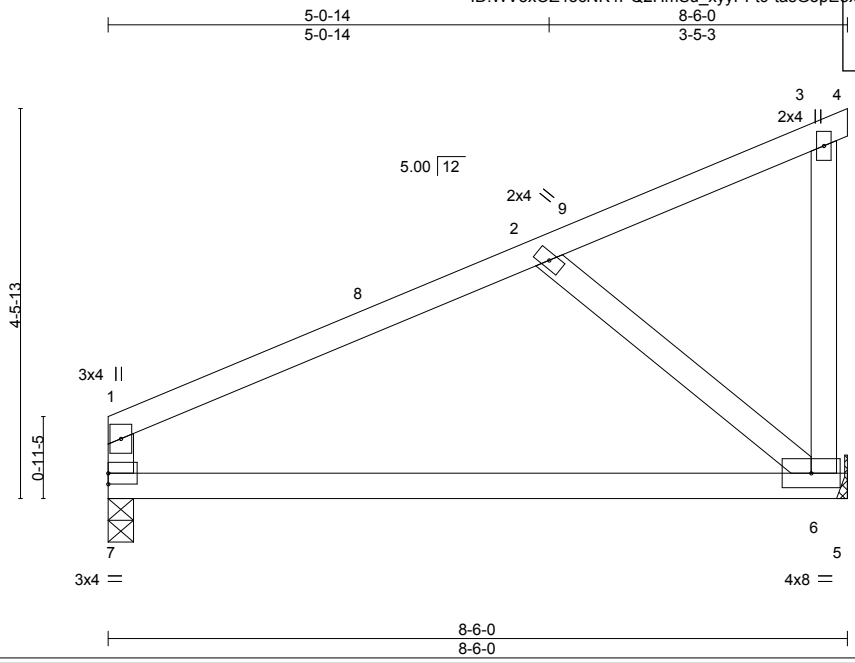

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.12	6-7	>827	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.23	6-7	>423	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 30 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) 7=0-3-8, 6=Mechanical
Max Horz 7=158(LC 9)
Max Uplift 7=-46(LC 12), 6=-88(LC 12)
Max Grav 7=364(LC 1), 6=375(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-363/134, 1-7=-280/148
BOT CHORD 6-7=-232/276
WEBS 2-6=-324/251

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 6.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M5	Half Hip	1	1	Job Reference (optional)

I45732438

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:47:10 2021 Page 1
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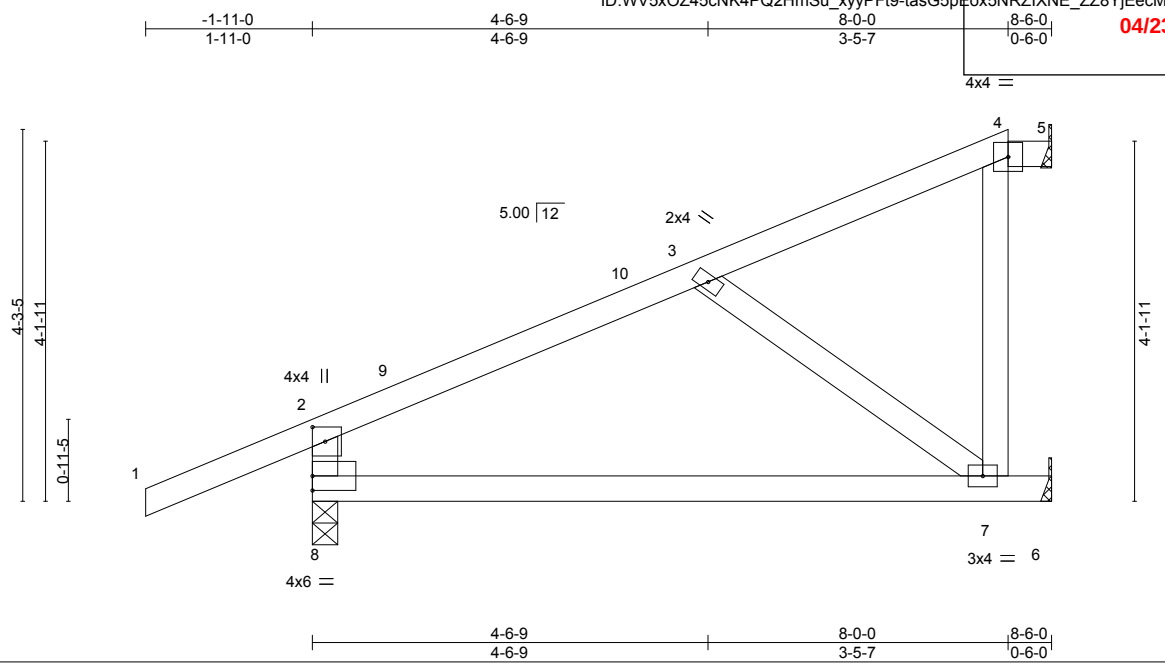

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.20	7-8	>494	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.43	7-8	>231	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 32 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, and 2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 8=0-3-8, 6=Mechanical
Max Horz 8=135(LC 12)
Max Uplift 8=-79(LC 12), 6=-86(LC 12)
Max Grav 8=535(LC 1), 6=360(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-329/70, 2-8=-409/215
WEBS 3-7=-309/215

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 8-0-0, Exterior(2E) 8-0-0 to 8-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 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.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M6	Half Hip	1	1	Job Reference (optional)

I45732439

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:43 2021 Page 1
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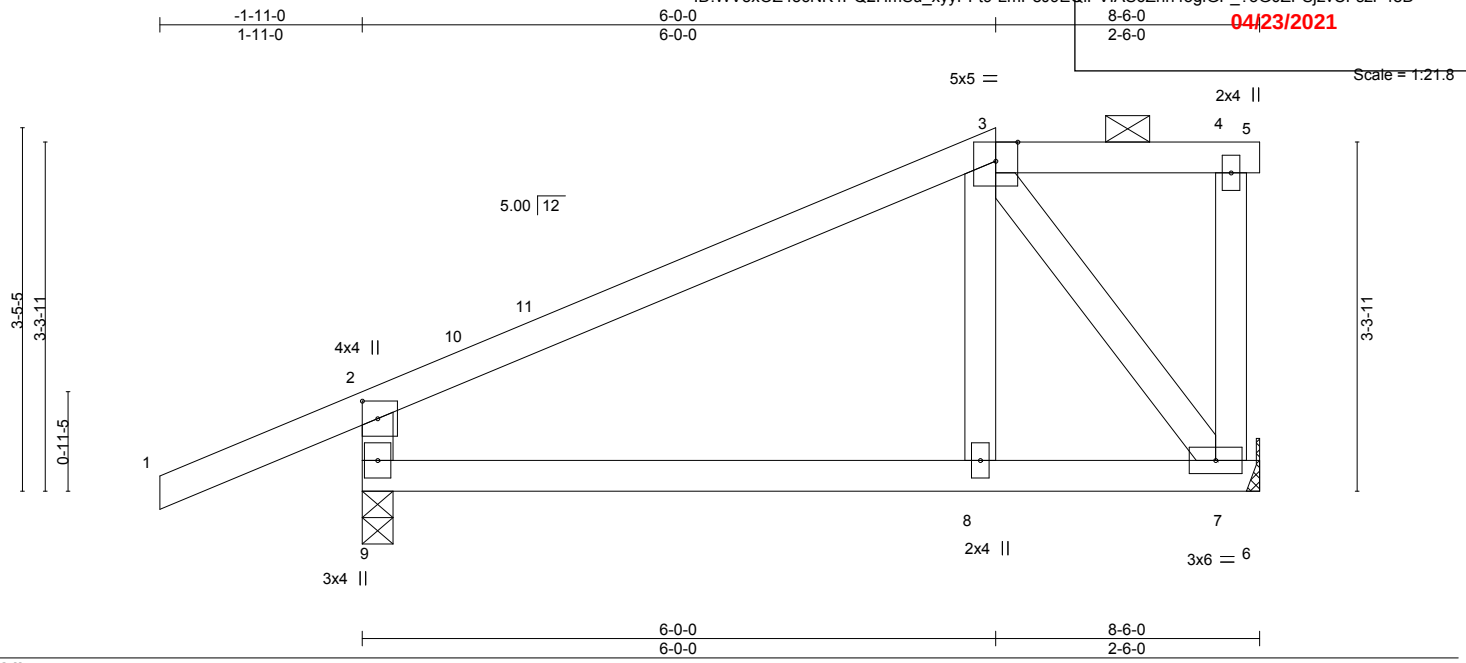

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.02	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.05	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 33 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, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 9=0-3-8, 7=Mechanical
Max Horz 9=130(LC 9)
Max Uplift 9=-96(LC 12), 7=-63(LC 9)
Max Grav 9=526(LC 1), 7=356(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-327/81, 2-9=-466/250
WEBS 3-7=-370/235

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 6-0-0, Exterior(2E) 6-0-0 to 8-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732440
2742340	M7	Half Hip	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 14:07:49 2021 Page 1
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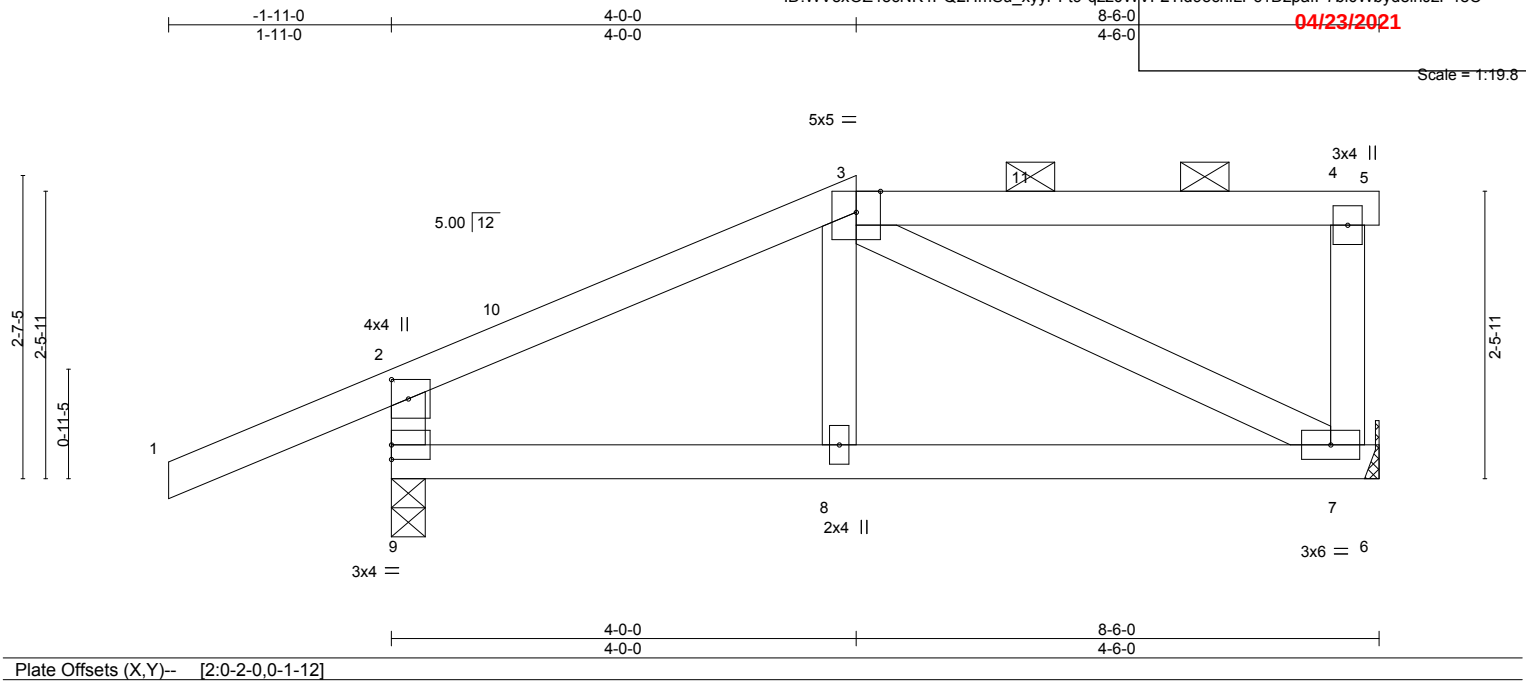

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.02	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 32 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, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 9=0-3-8, 7=Mechanical
Max Horz 9=98(LC 9)
Max Uplift 9=-96(LC 8), 7=-67(LC 9)
Max Grav 9=526(LC 1), 7=356(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-387/107, 2-9=-450/239
BOT CHORD 8-9=-178/294, 7-8=-181/293
WEBS 3-7=-256/156

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 4-0-0, Exterior(2E) 4-0-0 to 8-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M8	Half Hip Girder	1	1	Job Reference (optional)

I45732441

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
STRUCTURAL ONLY
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:05:10 2021 Page 1
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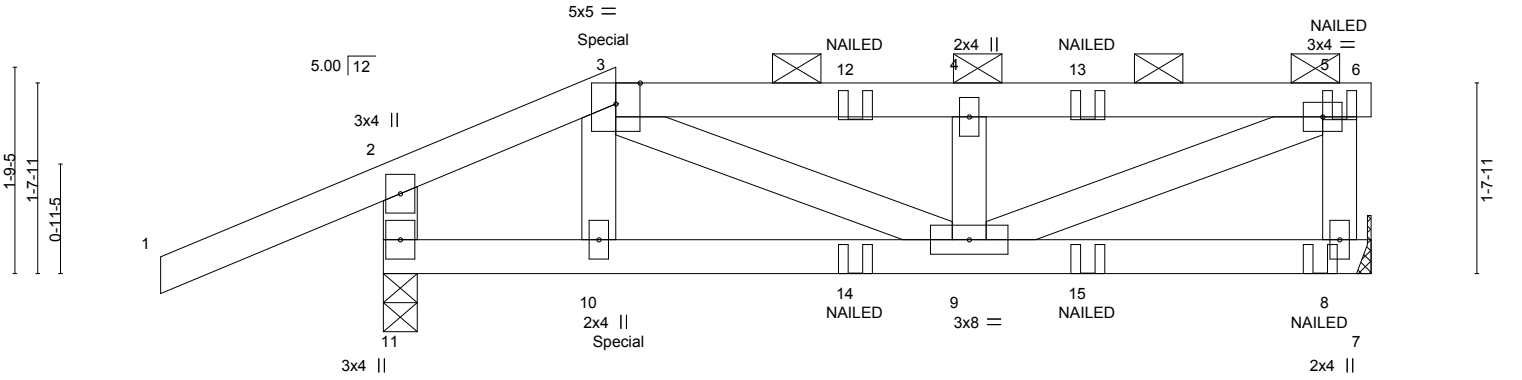
-1-11-0 1-11-0 | 2-0-0 2-0-0 | 5-0-8 3-0-8 | 8-6-0 3-5-8

Scale = 1:19.8



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

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	0.44	Vert(LL)	-0.02	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.04	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 33 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 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=Mechanical, 11=0-3-8
Max Horz 11=65(LC 35)
Max Uplift 8=-73(LC 5), 11=-109(LC 4)
Max Grav 8=359(LC 22), 11=526(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-321/54, 3-4=-539/99, 4-5=-537/98, 5-8=-319/85, 2-11=-419/103
BOT CHORD 10-11=-70/257, 9-10=-73/262
WEBS 3-9=-71/324, 4-9=-261/91, 5-9=-104/532

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 11=109.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 104 lb down and 26 lb up at 2-0-0 on top chord, and 34 lb down and 40 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-6=-20, 7-11=-20

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M9	Half Hip Girder	1	1	Job Reference (optional)

I45732442

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:51 2021 Page 1
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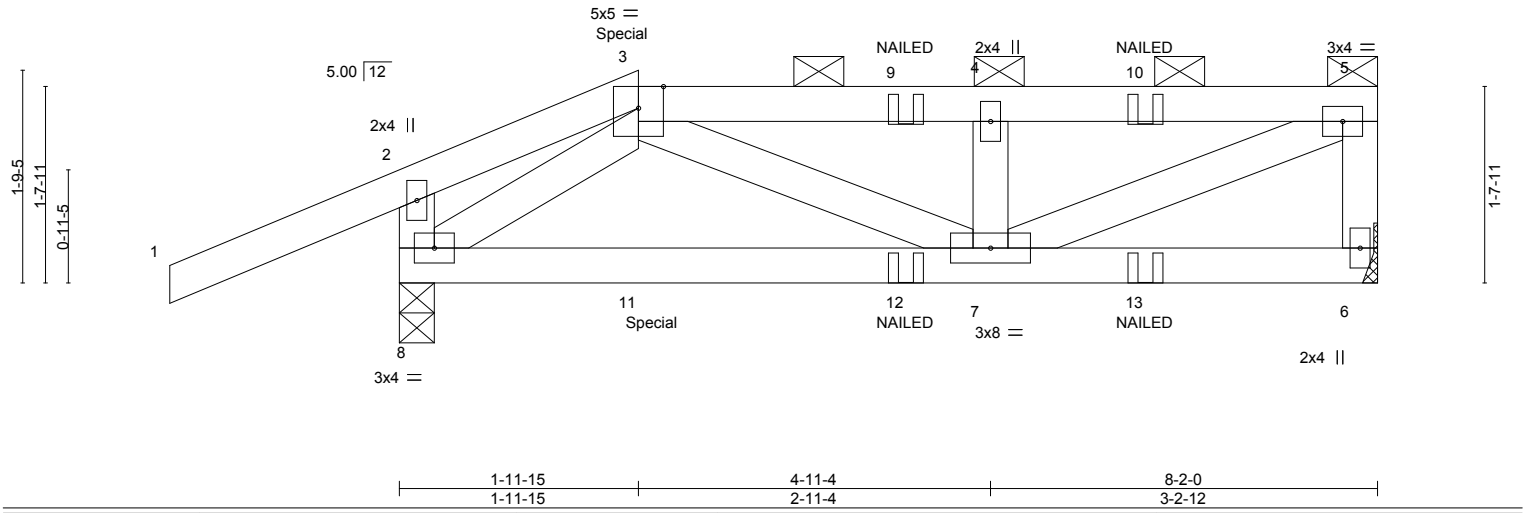

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.02	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 33 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 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 8=0-3-8
Max Horz 8=65(LC 7)
Max Uplift 6=-65(LC 5), 8=-108(LC 4)
Max Grav 6=338(LC 22), 8=518(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-527/87, 4-5=-524/85, 5-6=-317/71, 2-8=-290/120
BOT CHORD 7-8=-87/262
WEBS 3-7=-39/302, 4-7=-262/94, 5-7=-101/572, 3-8=-354/36

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=108.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 105 lb down and 26 lb up at 1-11-15 on top chord, and 22 lb down and 24 lb up at 1-11-15, and 12 lb down and 16 lb up at 2-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-5=-70, 6-8=-20

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M10	Half Hip	1	1	Job Reference (optional)

I45732443

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:12 2021 Page 1
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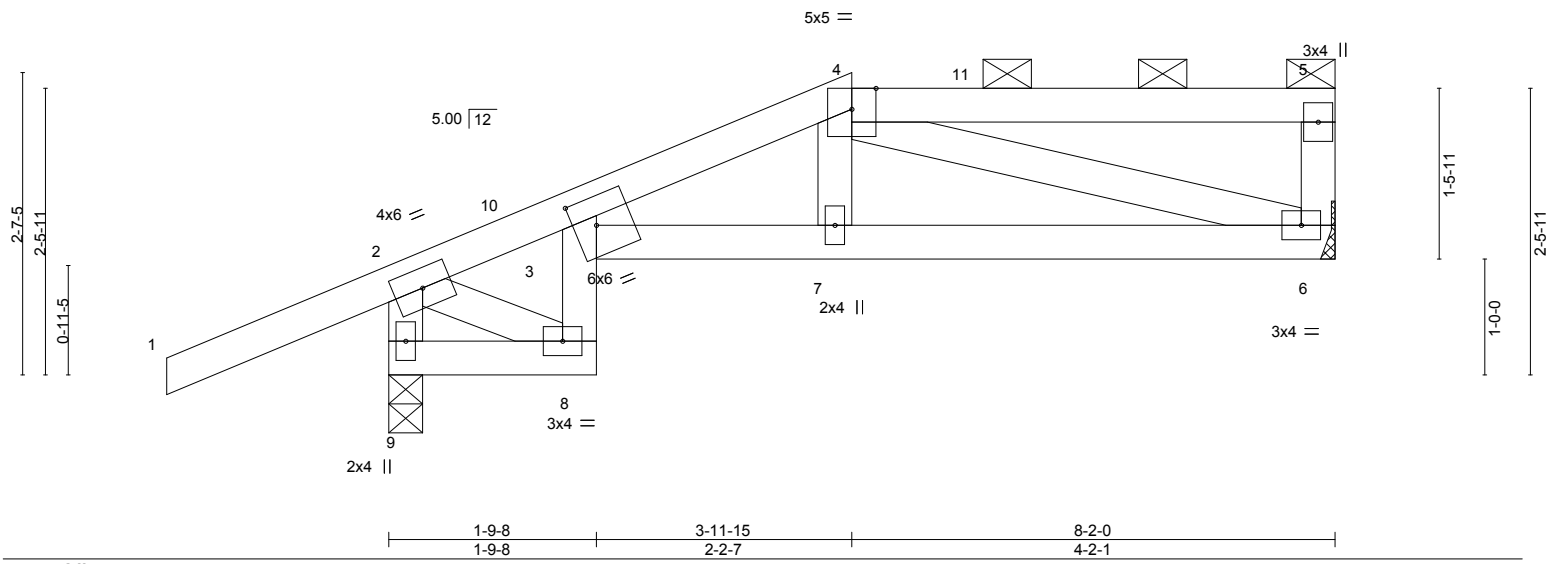

Plate Offsets (X,Y)-- [3:0-2-5,0-2-14]

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	0.50	Vert(LL)	0.06	3-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.08	3-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.07	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 31 lb	FT = 20%

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

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

REACTIONS. (size) 6=Mechanical, 9=0-3-8
Max Horz 9=83(LC 9)
Max Uplift 6=-61(LC 9), 9=-92(LC 8)
Max Grav 6=336(LC 1), 9=519(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-632/260, 2-9=-500/248
BOT CHORD 3-7=-304/586, 6-7=-309/580
WEBS 4-6=-521/280

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-11-15, Exterior(2E) 3-11-15 to 8-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset	I45732444
2742340	M11	Half Hip	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LIMITATIONS APPLY

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:41:11 2021 Page 1
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04/23/2021

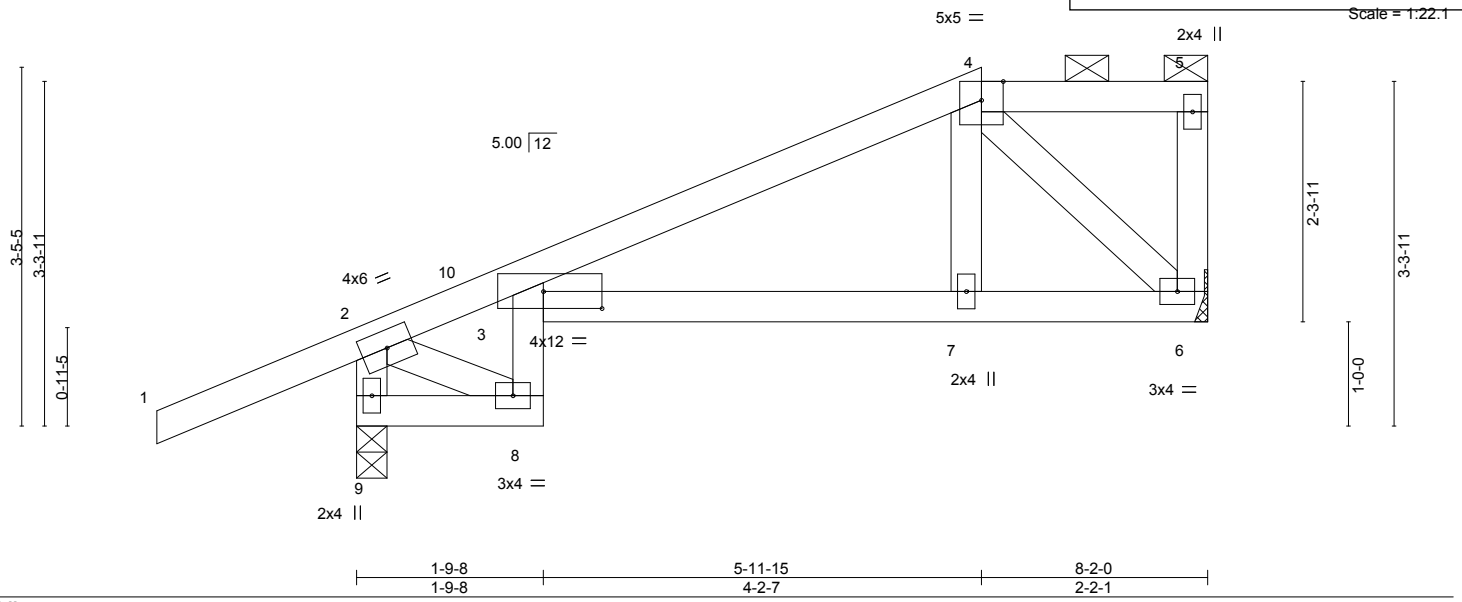

Plate Offsets (X,Y)-- [3:0-6-12,0-1-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	0.10	3-7	>951	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.14	3-7	>685	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.11	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 32 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, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 6=Mechanical, 9=0-3-8
Max Horz 9=116(LC 9)
Max Uplift 6=-57(LC 9), 9=-93(LC 12)
Max Grav 6=336(LC 1), 9=519(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-401/141, 2-9=-500/235
BOT CHORD 8-9=-252/192, 3-7=-224/344, 6-7=-223/334
WEBS 4-6=-489/299, 2-8=-219/287

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 5-11-15, Exterior(2E) 5-11-15 to 8-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M12	Half Hip	1	1	Job Reference (optional)

I45732445

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Apr 14 07:42:02 2021 Page 1
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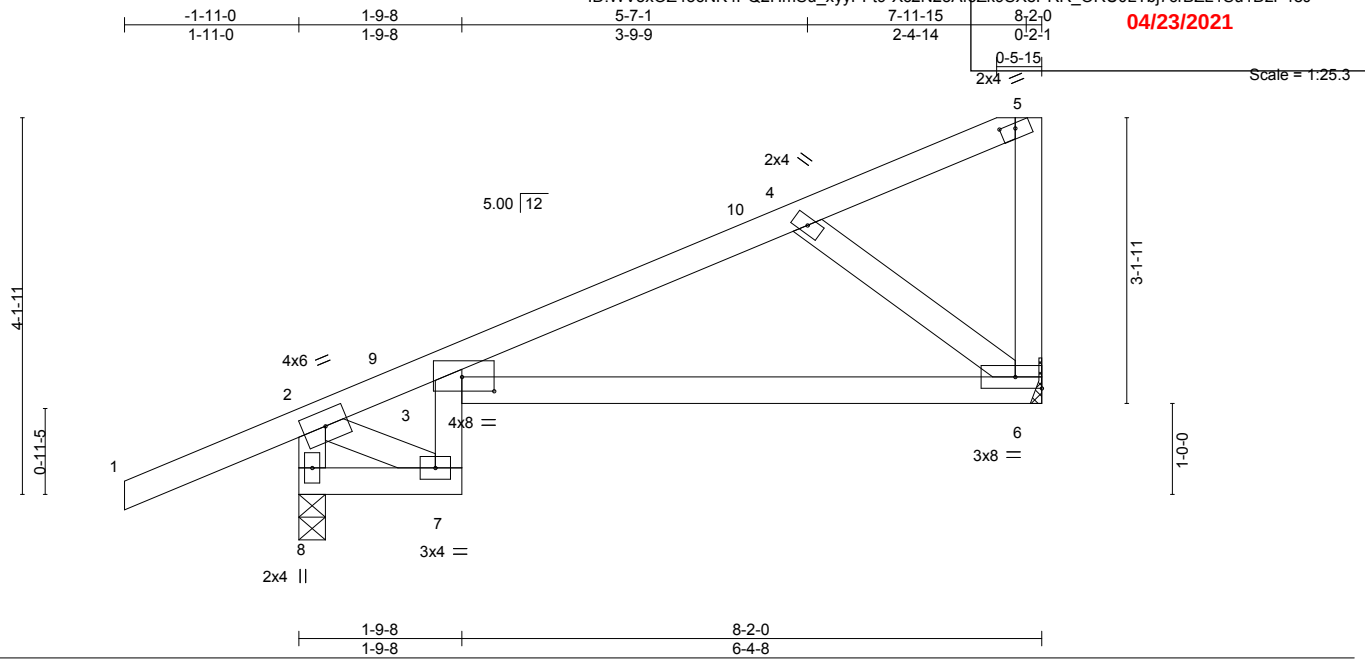

Plate Offsets (X,Y)-- [3:0-4-4,0-1-14], [5:0-2-0,0-0-11]

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	0.50	Vert(LL)	0.10	3-6	>954	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.20	3-6	>469	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.12	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 31 lb	FT = 20%

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

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

REACTIONS. (size) 6=Mechanical, 8=0-3-8
Max Horz 8=154(LC 9)
Max Uplift 6=-78(LC 12), 8=-89(LC 12)
Max Grav 6=336(LC 1), 8=519(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-385/101, 2-8=-500/229
BOT CHORD 7-8=-290/244, 3-6=-240/349
WEBS 4-6=-398/252, 2-7=-278/329

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 8-0-4 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) 6, 8.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M13	Jack-Closed	2	1	Job Reference (optional)

I45732446

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:40:42 2021 Page 1
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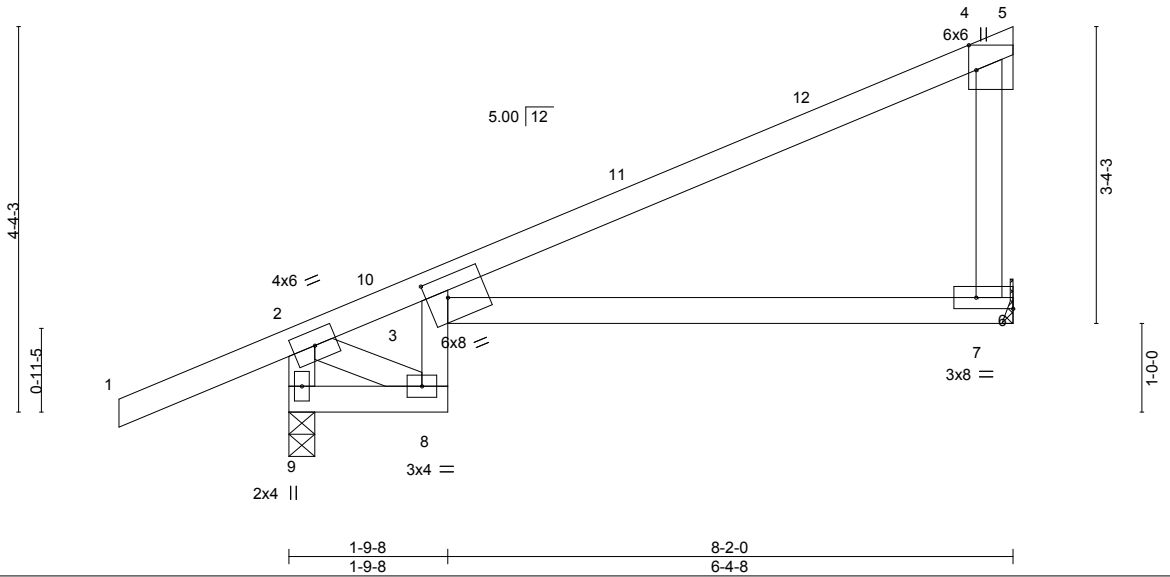

Plate Offsets (X,Y)-- [3:0-2-13,0-2-13], [4:0-3-6,Edge], [7:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	0.15	3-7	>620	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.25	3-7	>375	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.16	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 28 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) 9=0-3-8, 7=Mechanical
Max Horz 9=154(LC 9)
Max Uplift 9=-85(LC 12), 7=-59(LC 12)
Max Grav 9=514(LC 1), 7=341(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-9=-495/228
BOT CHORD 8-9=-304/241
WEBS 2-8=-274/344

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 8-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M14	Jack-Closed	1	1	Job Reference (optional)

I45732447

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 14:43:10 2021 Page 1
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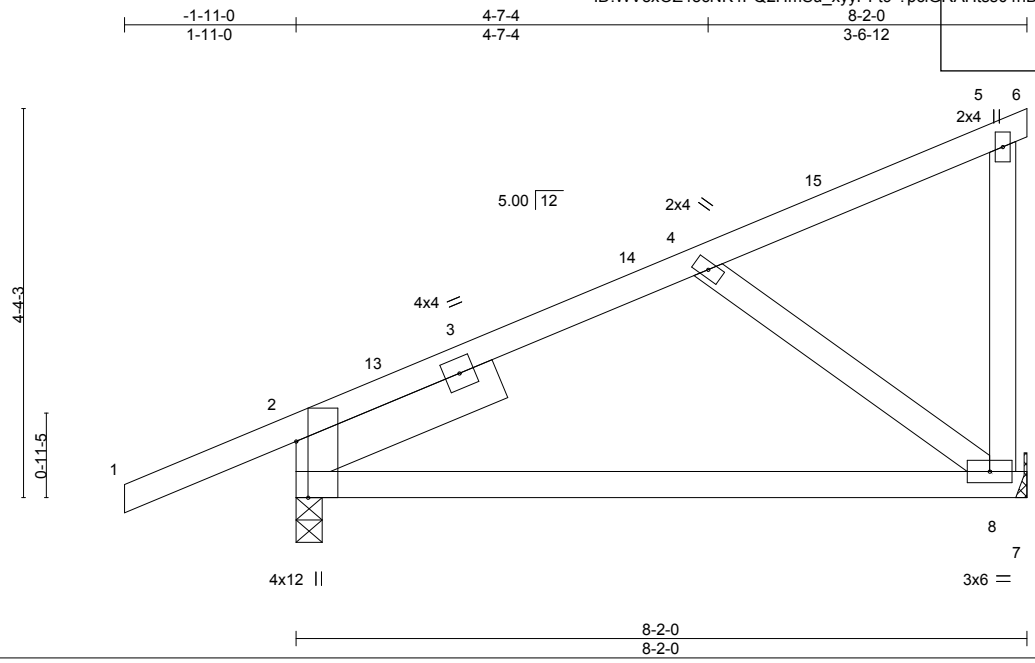

Plate Offsets (X,Y)-- [2:0-7-9,Edge]

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	0.24	Vert(LL)	-0.10	8-11	>933	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.20	8-11	>469	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 35 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 2=0-3-8, 8=Mechanical
Max Horz 2=163(LC 11)
Max Uplift 2=-84(LC 12), 8=-60(LC 12)
Max Grav 2=506(LC 1), 8=350(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-580/106
BOT CHORD 2-8=-212/261
WEBS 4-8=-323/208

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 8-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M20	Jack-Closed	1	1	Job Reference (optional)

I45732448

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF RAYMORE, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:44:02 2021 Page 1
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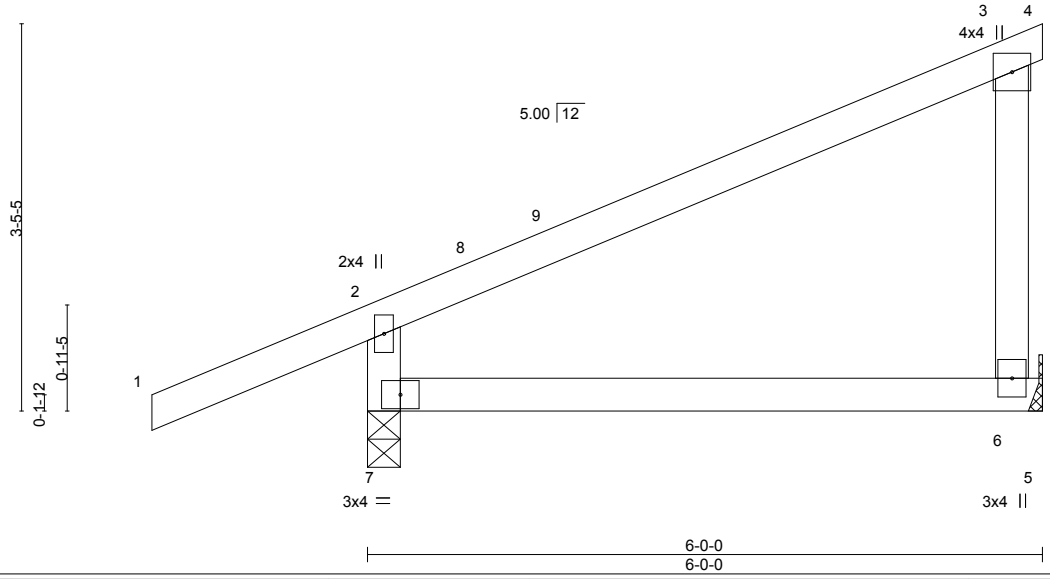

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.03	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.05	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 20 lb	FT = 20%

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

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

REACTIONS. (size) 6=Mechanical, 7=0-3-8
Max Horz 7=134(LC 9)
Max Uplift 6=-57(LC 12), 7=-76(LC 12)
Max Grav 6=236(LC 1), 7=422(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-375/250

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 6-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roeser/1487 Winterset
2742340	M21	Jack-Closed	3	1	Job Reference (optional)

I45732449

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 19 11:47:45 2021 Page 1
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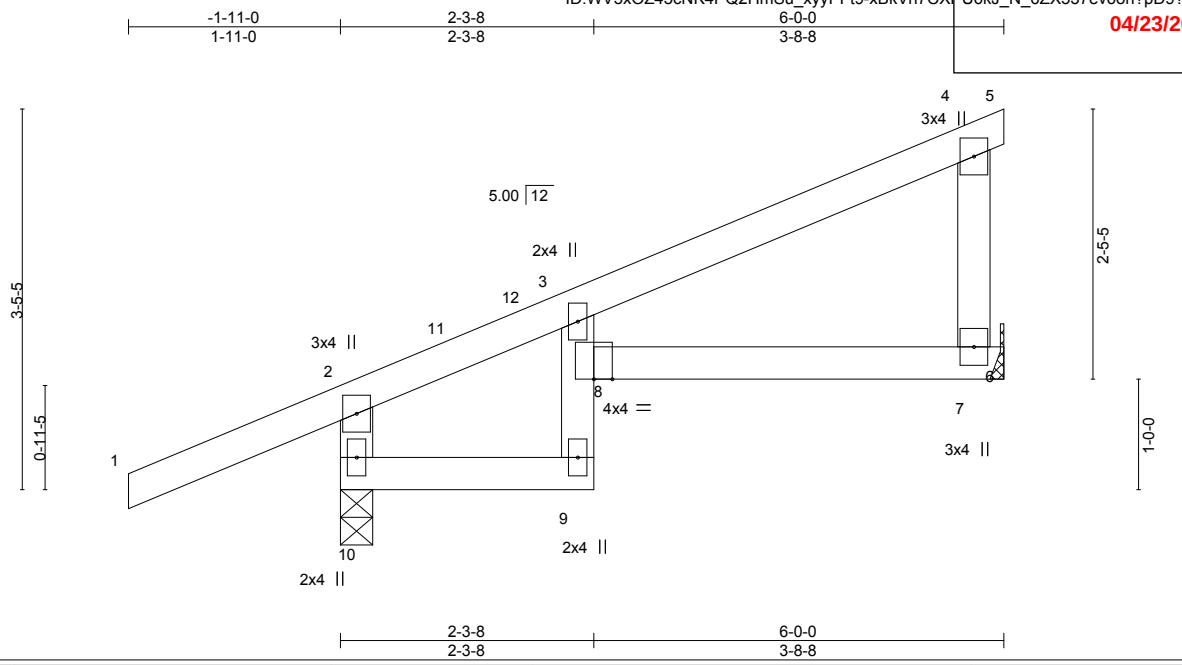


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	0.04	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.06	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 21 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) 10=0-3-8, 7=Mechanical
Max Horz 10=119(LC 9)
Max Uplift 10=-75(LC 12), 7=-59(LC 12)
Max Grav 10=422(LC 1), 7=236(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-10=-374/221

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 6-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

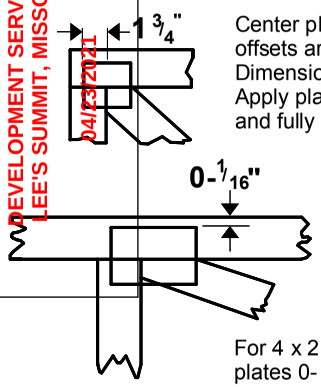
April 20,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/23/2021

Symbols

PLATE LOCATION AND ORIENTATION



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

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

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

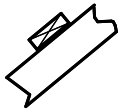
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

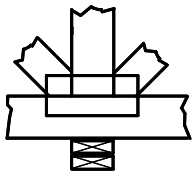
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

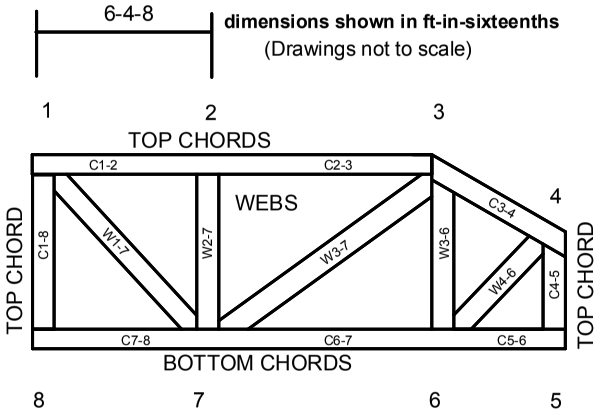


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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