RE: 2887880
SUMMIT/HAWTHORN RIDGE #207/MO

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

**Site Information:**

Customer: Project Name: 2887880
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 43 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal# | Truss Name | Date | No. | Seal# | Truss Name | Date |
|---|---|---|---|---|---|---|---|
| 1 | I47222732 | A1 | 8/2/2021 | 21 | I47222752 | D3 | 8/2/2021 |
| 2 | I47222733 | A1A | 8/2/2021 | 22 | I47222753 | D4 | 8/2/2021 |
| 3 | I47222734 | A2 | 8/2/2021 | 23 | I47222754 | D5 | 8/2/2021 |
| 4 | I47222735 | A3 | 8/2/2021 | 24 | I47222755 | D6 | 8/2/2021 |
| 5 | I47222736 | A4 | 8/2/2021 | 25 | I47222756 | DG1 | 8/2/2021 |
| 6 | I47222737 | A5 | 8/2/2021 | 26 | I47222757 | DG2 | 8/2/2021 |
| 7 | I47222738 | A6 | 8/2/2021 | 27 | I47222758 | E1 | 8/2/2021 |
| 8 | I47222739 | A7 | 8/2/2021 | 28 | I47222759 | E2 | 8/2/2021 |
| 9 | I47222740 | A8 | 8/2/2021 | 29 | I47222760 | EG | 8/2/2021 |
| 10 | I47222741 | A9 | 8/2/2021 | 30 | I47222761 | J1 | 8/2/2021 |
| 11 | I47222742 | A10 | 8/2/2021 | 31 | I47222762 | J2 | 8/2/2021 |
| 12 | I47222743 | A11 | 8/2/2021 | 32 | I47222763 | JD1 | 8/2/2021 |
| 13 | I47222744 | A12 | 8/2/2021 | 33 | I47222764 | JD2 | 8/2/2021 |
| 14 | I47222745 | A13 | 8/2/2021 | 34 | I47222765 | L1 | 8/2/2021 |
| 15 | I47222746 | AG1 | 8/2/2021 | 35 | I47222766 | M1 | 8/2/2021 |
| 16 | I47222747 | AG2 | 8/2/2021 | 36 | I47222767 | M3 | 8/2/2021 |
| 17 | I47222748 | B2 | 8/2/2021 | 37 | I47222768 | M4 | 8/2/2021 |
| 18 | I47222749 | BG | 8/2/2021 | 38 | I47222769 | M5 | 8/2/2021 |
| 19 | I47222750 | D1 | 8/2/2021 | 39 | I47222770 | M6 | 8/2/2021 |
| 20 | I47222751 | D2 | 8/2/2021 | 40 | I47222771 | MG1 | 8/2/2021 |

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

Truss Design Engineer's Name: Sevier, Scott

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

Missouri COA: 001193

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


August 02, 2021

Sevier, Scott

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

RE: 2887880 - SUMMIT/HAWTHORN RIDGE #207/MO

**Site Information:**

Project Customer: Project Name: 2887880
Lot/Block: Subdivision:
Address:
City, County: State:

| No. | Seal# | Truss Name | Date |
|---|---|---|---|
| 41 | I47222772 | MG2 | 8/2/2021 |
| 42 | I47222773 | MG3 | 8/2/2021 |
| 43 | I47222774 | MG4 | 8/2/2021 |

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A1 | Roof Special | 1 | 1 | I47222732 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:01 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-jqNaaMFQ49Z13ZoN_5Uqz8H6bYAvfv8pd7qx6TytDum

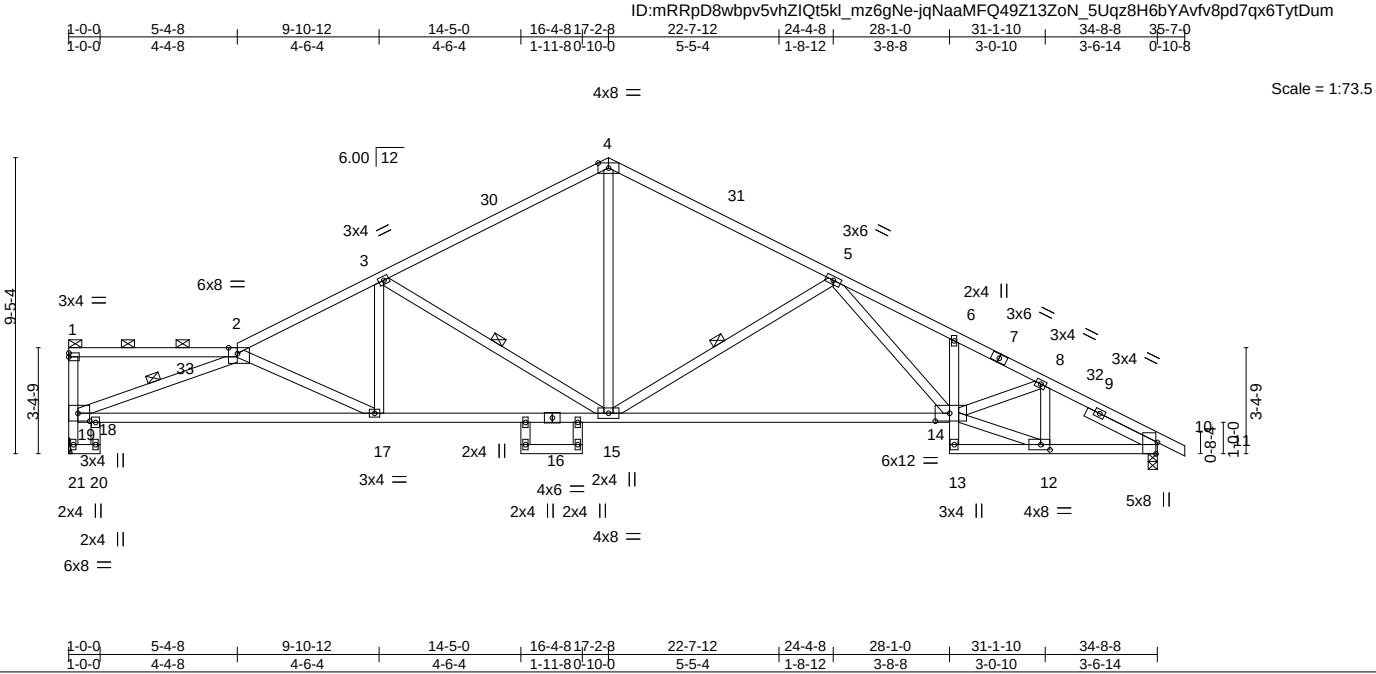



Plate Offsets (X,Y)-- [2:0-3-6,Edge], [10:0-4-5,Edge], [12:0-3-8,0-2-0], [14:0-5-8,0-3-0], [19:0-4-8,0-3-0]

| 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) | -0.41 | 14-15 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 1.00 | Vert(CT) | -0.91 | 14-15 | >457 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.62 | Horz(CT) | 0.24 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 159 lb | FT = 20% |

**LUMBER-**

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

**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 3-15, 2-19, 5-15 |

**REACTIONS.** (size) 21=Mechanical, 10=0-3-8
Max Horz 21=-187(LC 10)
Max Uplift 21=-198(LC 12), 10=-212(LC 13)
Max Grav 21=1555(LC 1), 10=1617(LC 1)

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

| | |
|---|---|
| TOP CHORD | 19-21=-1497/204, 2-3=-2869/346, 3-4=-2019/304, 4-5=-2016/317, 5-6=-3557/438, 6-8=-3518/398, 8-10=-2568/331 |
| BOT CHORD | 18-19=-400/3256, 17-18=-433/3187, 15-17=-281/2505, 14-15=-193/2497, 10-12=-231/2222 |
| WEBS | 4-15=-106/1197, 3-15=-940/243, 3-17=-3/480, 2-17=-755/168, 2-19=-3267/463, 5-15=-940/283, 8-12=-807/97, 12-14=-182/2283, 8-14=-36/973, 5-14=-97/1028 |

**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 3-7-6, Interior(1) 3-7-6 to 17-2-8, Exterior(2R) 17-2-8 to 20-8-2, Interior(1) 20-8-2 to 35-7-0 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 100 lb uplift at joint(s) except (jt=lb) 21=198, 10=212.
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.

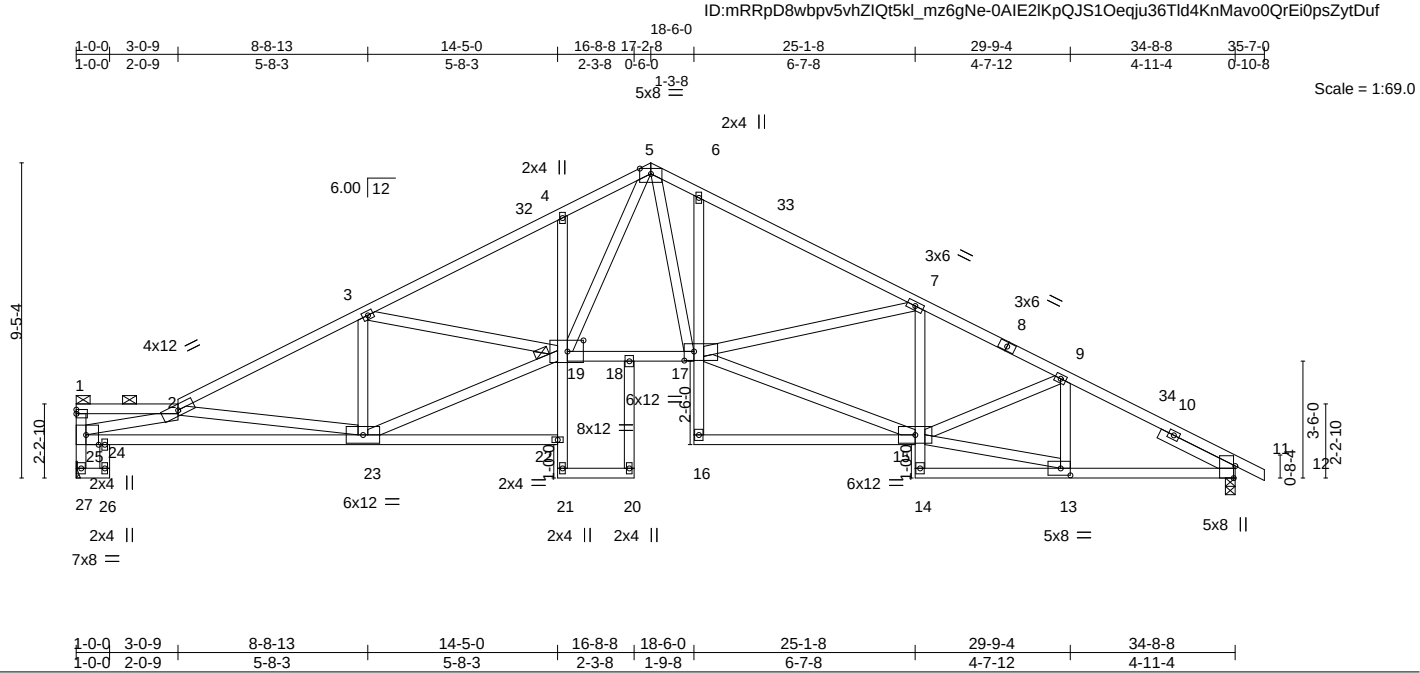

July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A1A | ROOF SPECIAL | 1 | 1 | I47222733 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:08 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-0AIE2lKpQJS1Oeqju36Tld4KnMavo0QrEi0psZytDuf




1-0-0 3-0-9 8-8-13 14-5-0 16-8-8 18-6-0 25-1-8 29-9-4 34-8-8
1-0-0 2-0-9 5-8-3 5-8-3 2-3-8 1-9-8 6-7-8 4-7-12 4-11-4

Plate Offsets (X,Y)-- [11:0-4-5,Edge], [13:0-3-8,0-2-8], [17:0-3-8,0-3-4], [19:0-5-12,0-4-0], [25:0-4-8,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 | 0.55 | Vert(LL) | -0.33 | 20 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.85 | Vert(CT) | -0.59 | 20 | >703 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.84 | Horz(CT) | 0.38 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-AS | | | | | | | Weight: 188 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 *Except* |
| | 22-25: 2x4 SPF 1650F 1.5E |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Right 2x4 SPF No.2 2-6-0 |

**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. |
| JOINTS | 1 Brace at Jt(s): 1, 19 |

**REACTIONS.** (size) 27=Mechanical, 11=0-3-8
Max Horz 27=-157(LC 10)
Max Uplift 27=-194(LC 12), 11=-212(LC 13)
Max Grav 27=1555(LC 1), 11=1617(LC 1)

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

| | |
|---|---|
| TOP CHORD | 25-27=-1507/227, 1-2=-339/21, 2-3=-3042/370, 3-4=-3473/393, 4-5=-3409/467, 5-6=-3108/430, 6-7=-3182/370, 7-9=-2970/367, 9-11=-2621/335 |
| BOT CHORD | 24-25=-612/4101, 23-24=-662/4093, 4-19=-288/150, 18-19=-112/2340, 17-18=-118/2376, 6-17=-327/177, 7-15=-527/86, 11-13=-221/2275 |
| WEBS | 2-23=-1448/324, 3-23=-705/149, 15-17=-220/2799, 19-23=-352/2761, 3-19=0/420, 5-19=-290/1487, 5-17=-259/1477, 9-13=-476/82, 13-15=-190/2176, 9-15=-19/385, 2-25=-4084/628 |

**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 3-0-9, Interior(1) 3-0-9 to 17-2-8, Exterior(2R) 17-2-8 to 20-8-2, Interior(1) 20-8-2 to 35-7-0 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) All plates are 3x4 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 27=194, 11=212.
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.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A2 | Roof Special Girder | 1 | 1 | I47222734 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:10 2021 Page 1
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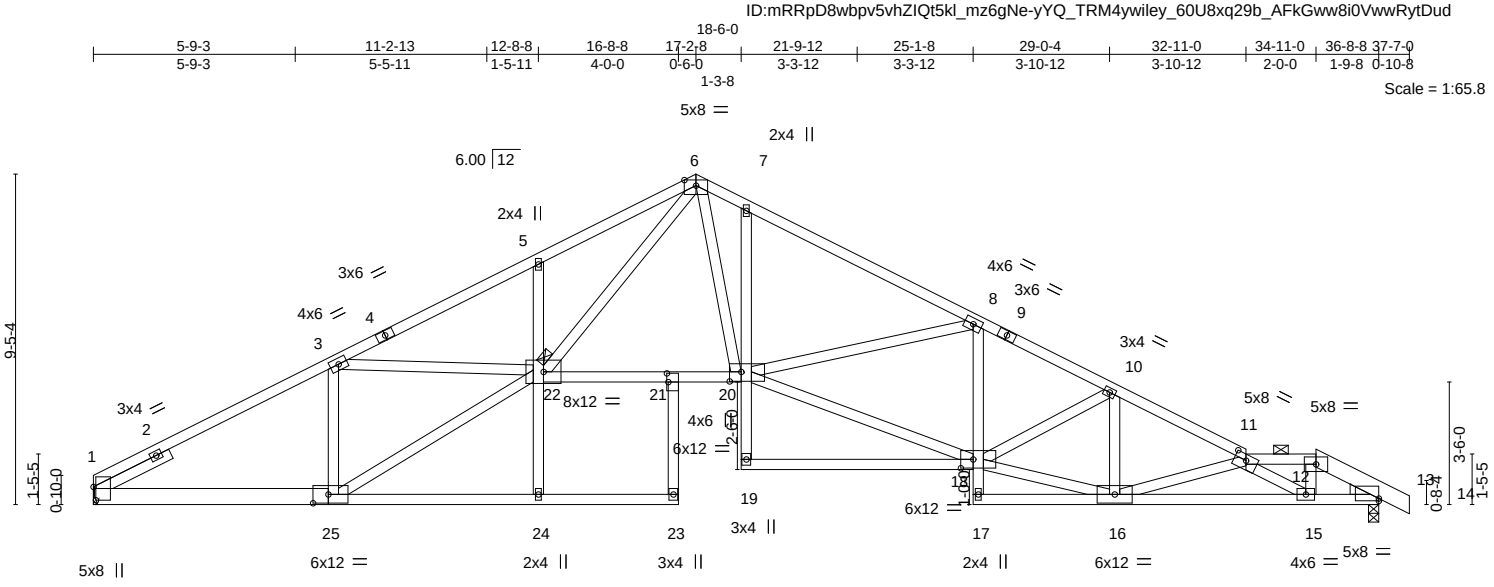


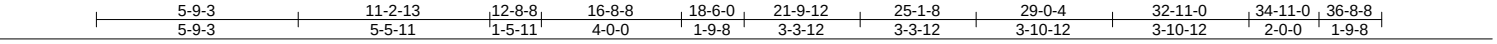




Plate Offsets (X,Y)-- [1:0-4-9,0-0-13], [11:0-4-0,0-2-0], [13:0-0-0,0-0-13], [18:0-4-4,0-3-0], [20:0-4-0,0-3-4], [21:0-3-0,0-0-8], [25:0-5-4,0-3-0]

| 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 | 0.88 | Vert(LL) | -0.39 | 20-21 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.96 | Vert(CT) | -0.73 | 18-19 | >602 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.84 | Horz(CT) | 0.36 | 13 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 197 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2 *Except*
4-6,6-9: 2x4 SPF 1650F 1.5E, 12-14: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
1-25: 2x6 SPF No.2, 13-17: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SP No.3
SLIDER Left 2x4 SPF No.2 2-5-1

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins, except
2-0-0 oc purlins (3-6-12 max.): 11-12.
BOT CHORD Rigid ceiling directly applied or 9-7-6 oc bracing.
JOINTS 1 Brace at Jt(s): 22

**REACTIONS.** (size) 1=Mechanical, 13=0-3-8
Max Horz 1=-159(LC 9)
Max Uplift 1=-199(LC 8), 13=-234(LC 9)
Max Grav 1=1651(LC 1), 13=1712(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2727/332, 3-5=-4536/515, 5-6=-4523/614, 6-7=-3524/397, 7-8=-3589/367, 8-10=-3611/441, 10-11=-3605/454, 11-12=-2511/322, 12-13=-2760/340
BOT CHORD 1-25=-337/2370, 21-22=-138/2618, 20-21=-144/2673, 7-20=-355/181, 8-18=-331/75, 15-16=-563/4539, 13-15=-260/2352
WEBS 18-20=-264/3406, 8-20=-293/241, 16-18=-284/3123, 11-16=-1440/261, 11-15=-2422/345, 12-15=-123/1250, 6-22=-392/2129, 6-20=-289/1770, 3-25=-1294/236, 5-22=-378/180, 22-25=-391/2695, 3-22=-44/1563

**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) except (jt=lb) 1=199, 13=234.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 37 lb down and 32 lb up at 34-11-0 on top chord, and 9 lb down and 2 lb up at 34-11-0 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).


July 30,2021

Continued on page 2

**LOAD CASE(S)** Standard



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**LOAD CASE(S)** Standard

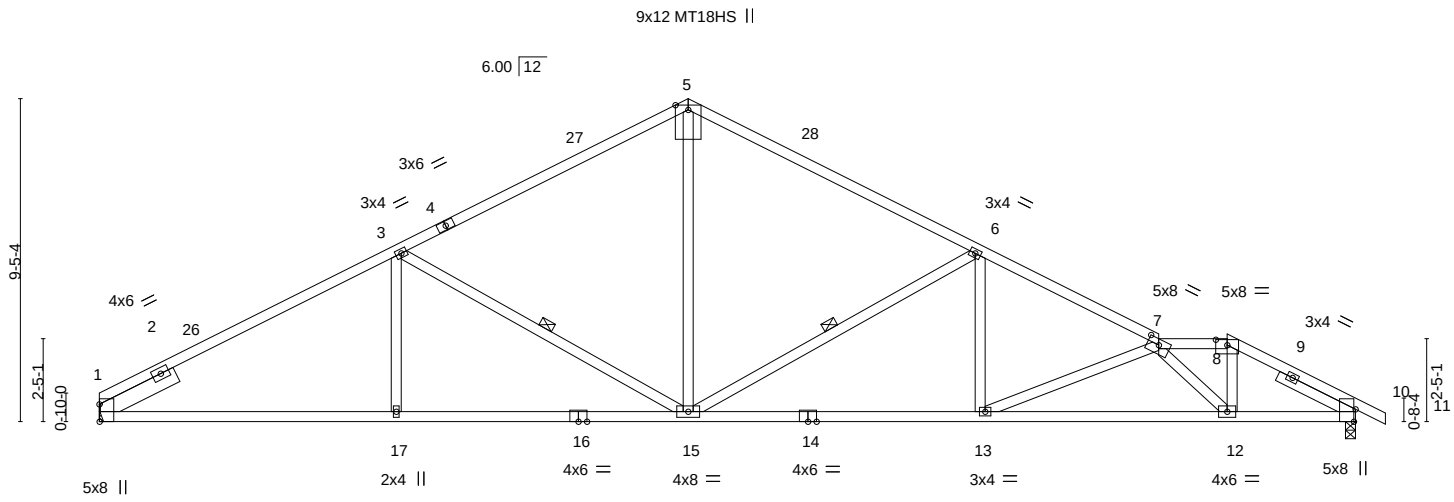
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-6=-70, 6-11=-70, 11-12=-70, 12-14=-70, 23-26=-20, 20-21=-20, 18-19=-20, 17-30=-20
   Concentrated Loads (lb)
   Vert: 15=2(B)

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A3 | Roof Special | 1 | 1 | I47222735 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:11 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-Ql_MgnMijEqcF6YIaBfANFimjaaX?SHIwgFTTuytDuc

| 5-11-3 | 8-6-6 | 11-6-13 | 17-2-8 | 25-10-10 | 30-11-8 | 32-11-8 | 36-8-8 | 37-7-0 |
|---|---|---|---|---|---|---|---|---|
| 5-11-3 | 2-7-3 | 3-0-7 | 5-7-11 | 8-8-2 | 5-0-14 | 2-0-0 | 3-9-0 | 0-10-8 |

Scale = 1:67.3




| 7-11-8 | 8-6-6 | 17-2-8 | 25-10-10 | 30-11-8 | 32-11-8 | 36-8-8 |
|---|---|---|---|---|---|---|
| 7-11-8 | 0-6-14 | 8-8-2 | 8-8-2 | 5-0-14 | 2-0-0 | 3-9-0 |

Plate Offsets (X,Y)-- [1:0-6-1,Edge], [7:0-4-0,0-2-0], [8:0-4-0,0-1-15], [10:0-4-5,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 | 0.89 | Vert(LL) | -0.22 | 12-13 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.98 | Vert(CT) | -0.47 | 15-17 | >939 | 180 | MT18HS | 197/144 |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.57 | Horz(CT) | 0.15 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 151 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except* |
| | 4-5: 2x4 SPF 1650F 1.5E |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Left 2x6 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except |
| | 2-0-0 oc purlins (3-6-5 max.): 7-8. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 3-15, 6-15 |

**REACTIONS.** (size) 1=Mechanical, 10=0-3-8
Max Horz 1=-155(LC 13)
Max Uplift 1=-198(LC 12), 10=-233(LC 13)
Max Grav 1=1651(LC 1), 10=1714(LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-3=-2705/344, 3-5=-2037/334, 7-8=-2388/335, 8-10=-2829/364, 5-6=-2040/332, 6-7=-3075/397 |
| BOT CHORD | 1-17=-324/2325, 15-17=-324/2325, 13-15=-226/2704, 12-13=-412/3616, 10-12=-262/2472 |
| WEBS | 3-15=-784/266, 5-15=-105/1108, 6-15=-1151/304, 6-13=-9/578, 7-13=-989/201, 7-12=-1752/230, 8-12=-107/1264, 3-17=0/310 |

**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 17-2-8, Exterior(2R) 17-2-8 to 20-2-8, Interior(1) 20-2-8 to 32-11-8, Exterior(2R) 32-11-8 to 36-2-6, Interior(1) 36-2-6 to 37-7-0 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) 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 100 lb uplift at joint(s) except (jt=lb) 1=198, 10=233.
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.


July 30,2021




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A4 | Roof Special | 1 | 1 | I47222736 |

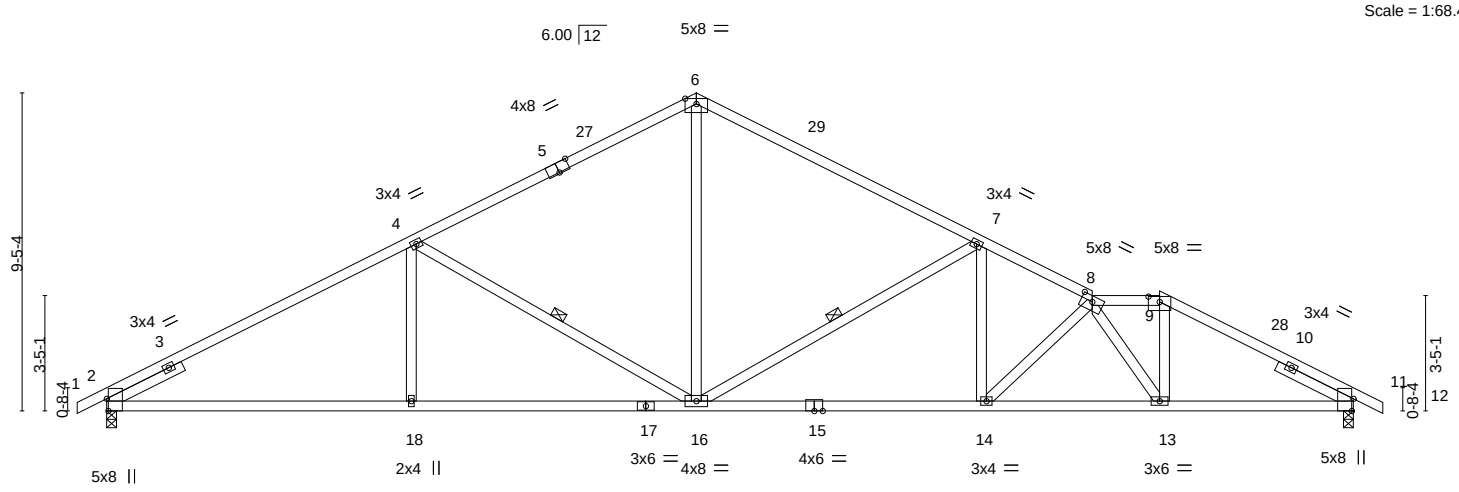
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:12 2021 Page 1

ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-uxYku7NKUYyTtG7V7vAPvTEwj_wTkwZR9K_1?KytDub

| -0-10-8 | 8-10-12 | 17-6-0 | 26-1-5 | 29-3-0 | 31-3-0 | 37-0-0 | 37-10-8 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 8-10-12 | 8-7-4 | 8-7-5 | 3-1-11 | 2-0-0 | 5-9-0 | 0-10-8 |

Scale = 1:68.4




| 8-10-12 | 17-6-0 | 26-1-5 | 29-3-0 | 31-3-0 | 37-0-0 |
|---|---|---|---|---|---|
| 8-10-12 | 8-7-4 | 8-7-5 | 3-1-11 | 2-0-0 | 5-9-0 |

Plate Offsets (X,Y)-- [2:0-4-5,Edge], [5:0-4-0,Edge], [8:0-4-0,0-2-0], [9:0-4-0,0-1-15], [11:0-4-5,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 | 0.93 | Vert(LL) | -0.21 | 14 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 1.00 | Vert(CT) | -0.45 | 14-16 | >978 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.51 | Horz(CT) | 0.15 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 152 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-6-7 max.): 8-9. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 4-16, 7-16 |

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8
Max Horz 2=145(LC 12)
Max Uplift 2=-218(LC 12), 11=-234(LC 13)
Max Grav 2=1726(LC 1), 11=1726(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-4=-2602/351, 4-6=-2068/341, 8-9=-2456/369, 9-11=-2869/380, 6-7=-2065/337, 7-8=-3058/409 |
| BOT CHORD | 2-18=-334/2414, 16-18=-334/2414, 14-16=-235/2714, 13-14=-312/3157, 11-13=-255/2505 |
| WEBS | 4-18=0/331, 4-16=-850/276, 6-16=-113/1148, 7-16=-1140/303, 7-14=-18/589, 8-14=-617/116, 8-13=-1253/139, 9-13=-75/1068 |

**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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 17-6-0, Exterior(2R) 17-6-0 to 20-6-0, Interior(1) 20-6-0 to 31-3-0, Exterior(2R) 31-3-0 to 34-3-0, Interior(1) 34-3-0 to 37-10-8 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) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=218, 11=234.
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.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A5 | Roof Special | 1 | 1 | I47222737 |

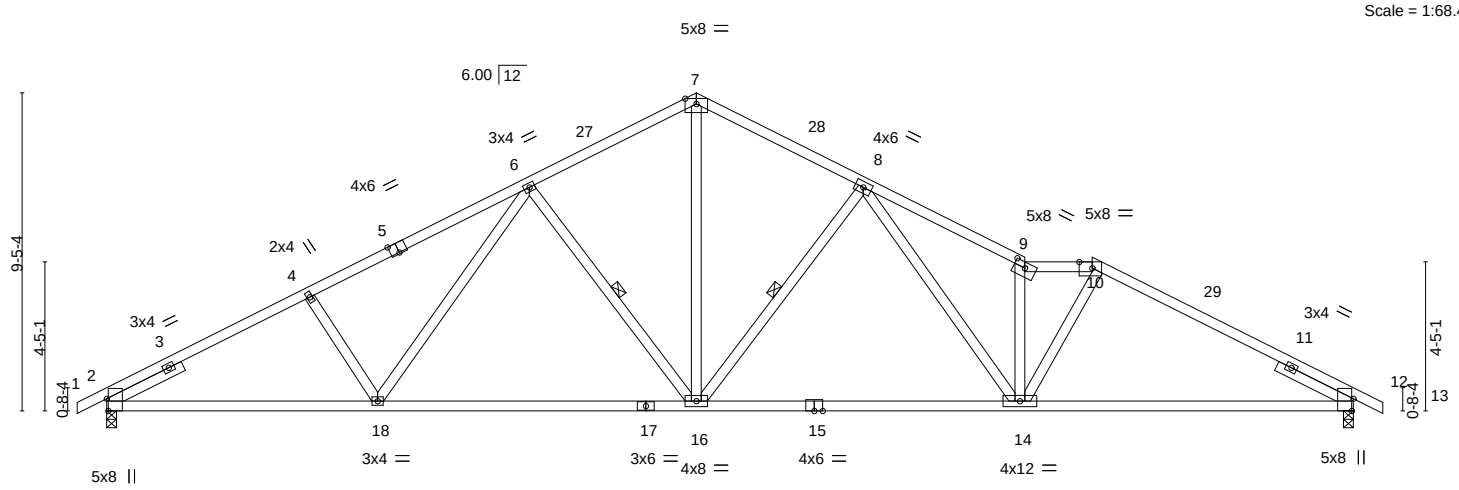
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:13 2021 Page 1

ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-M7575TOyFr4KVPihhcieSgn8wNIyTM8aO_kaXmytDua

| -0-10-8 | 6-0-5 | 12-6-9 | 17-6-0 | 22-5-7 | 27-3-0 | 29-3-0 | 37-0-0 | 37-10-8 |
|---|---|---|---|---|---|---|---|---|
| 0-10-8 | 6-0-5 | 6-6-3 | 4-11-7 | 4-11-7 | 4-9-9 | 2-0-0 | 7-9-0 | 0-10-8 |

Scale = 1:68.4




| 8-0-8 | 17-6-0 | 27-3-0 | 29-3-0 | 37-0-0 |
|---|---|---|---|---|
| 8-0-8 | 9-5-8 | 9-9-0 | 2-0-0 | 7-9-0 |

Plate Offsets (X,Y)-- [2:0-4-5,Edge], [5:0-3-0,Edge], [9:0-4-0,0-2-0], [10:0-4-10,Edge], [12:0-4-5,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 | 0.71 | Vert(LL) | -0.22 | 14-16 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.86 | Vert(CT) | -0.50 | 16-18 | >895 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.55 | Horz(CT) | 0.13 | 12 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 157 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-3-6 max.): 9-10. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 6-16, 8-16 |

**REACTIONS.** (size) 2=0-3-8, 12=0-3-8
Max Horz 2=145(LC 16)
Max Uplift 2=-218(LC 12), 12=-234(LC 13)
Max Grav 2=1726(LC 1), 12=1726(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-4=-2867/362, 4-6=-2718/386, 6-7=-2002/355, 7-8=-1995/350, 8-9=-3254/485, 9-10=-2910/397, 10-12=-2818/376 |
| BOT CHORD | 2-18=-383/2495, 16-18=-232/2093, 14-16=-164/2219, 12-14=-244/2446 |
| WEBS | 4-18=-305/182, 6-18=-97/495, 6-16=-666/242, 7-16=-203/1410, 8-16=-854/266, 8-14=-200/1107, 9-14=-1636/259, 10-14=-67/1016 |

**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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 17-6-0, Exterior(2R) 17-6-0 to 20-6-0, Interior(1) 20-6-0 to 29-3-0, Exterior(2R) 29-3-0 to 32-3-0, Interior(1) 32-3-0 to 37-10-8 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) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=218, 12=234.
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.


July 30,2021



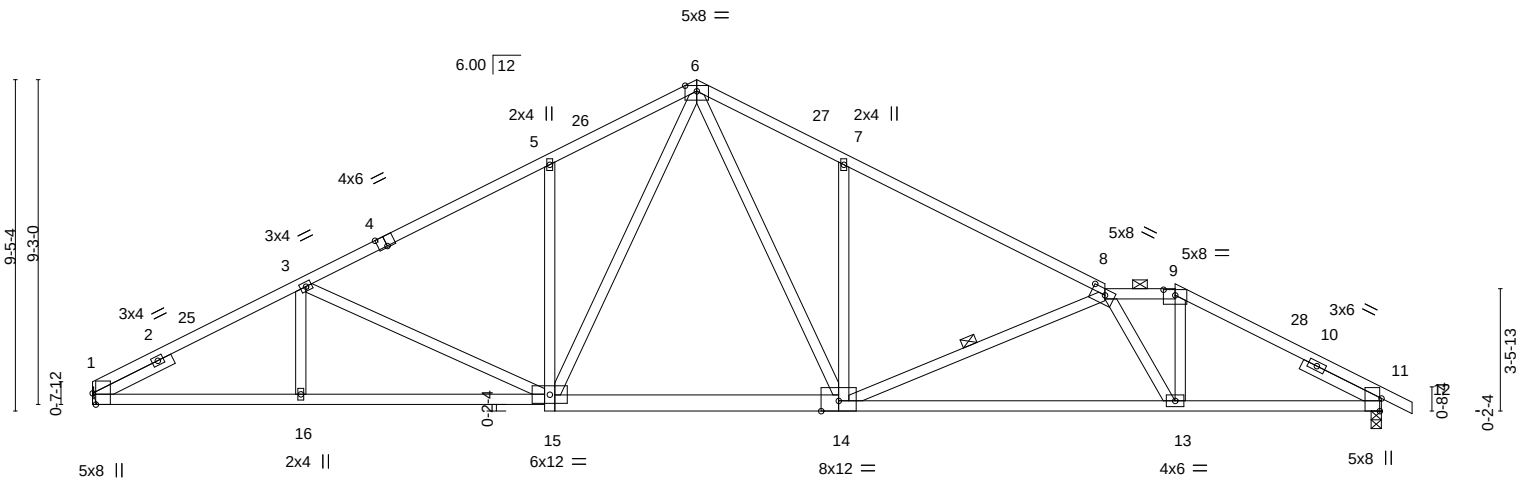

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A6 | Roof Special | 1 | 1 | I47222738 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:14 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-rKfVJoPa09CB6ZHtFKDt_uKHlnfiCoNkceT73DytDuZ

| 5-11-3 | 11-6-13 | 12-10-8 | 17-2-8 | 21-3-0 | 23-0-4 | 28-10-0 | 30-10-0 | 36-8-8 | 37-7-0 |
|---|---|---|---|---|---|---|---|---|---|
| 5-11-3 | 5-7-11 | 1-3-11 | 4-4-0 | 4-0-8 | 1-9-4 | 5-9-12 | 2-0-0 | 5-10-8 | 0-10-8 |

Scale = 1:65.6




| 5-11-3 | 12-10-8 | 21-3-0 | 30-10-0 | 36-8-8 |
|---|---|---|---|---|
| 5-11-3 | 6-11-5 | 8-4-8 | 9-7-0 | 5-10-8 |

Plate Offsets (X,Y)-- [1:0-3-13,Edge], [4:0-3-0,Edge], [8:0-4-12,0-2-0], [9:0-4-0,0-1-15], [11:0-4-5,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 | 0.83 | Vert(LL) | -0.23 | 13-14 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.83 | Vert(CT) | -0.55 | 13-14 | >794 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.61 | Horz(CT) | 0.13 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 167 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 *Except* |
| | 14-15: 2x6 SPF No.2, 11-14: 2x4 SPF 1650F 1.5E |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except |
| | 2-0-0 oc purlins (3-4-10 max.): 8-9. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 8-14 |

**REACTIONS.** (size) 1=Mechanical, 11=0-3-8
Max Horz 1=-155(LC 13)
Max Uplift 1=-199(LC 12), 11=-234(LC 13)
Max Grav 1=1651(LC 1), 11=1714(LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-3=-2896/359, 3-5=-2392/348, 5-6=-2377/437, 6-7=-2481/445, 7-8=-2522/353, |
| | 9-11=-2870/365, 8-9=-2447/354 |
| BOT CHORD | 1-16=-375/2532, 15-16=-375/2533, 14-15=-91/1661, 13-14=-343/3169, 11-13=-241/2501 |
| WEBS | 3-16=0/255, 5-15=-463/214, 3-15=-578/194, 6-14=-283/1178, 6-15=-260/928, |
| | 7-14=-461/230, 8-14=-1112/286, 9-13=-106/1202, 8-13=-1311/208 |

**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 17-2-8, Exterior(2R) 17-2-8 to 20-2-8, Interior(1) 20-2-8 to 30-10-0, Exterior(2R) 30-10-0 to 33-10-0, Interior(1) 33-10-0 to 37-7-0 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 100 lb uplift at joint(s) except (jt=lb) 1=199, 11=234.
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.


July 30,2021



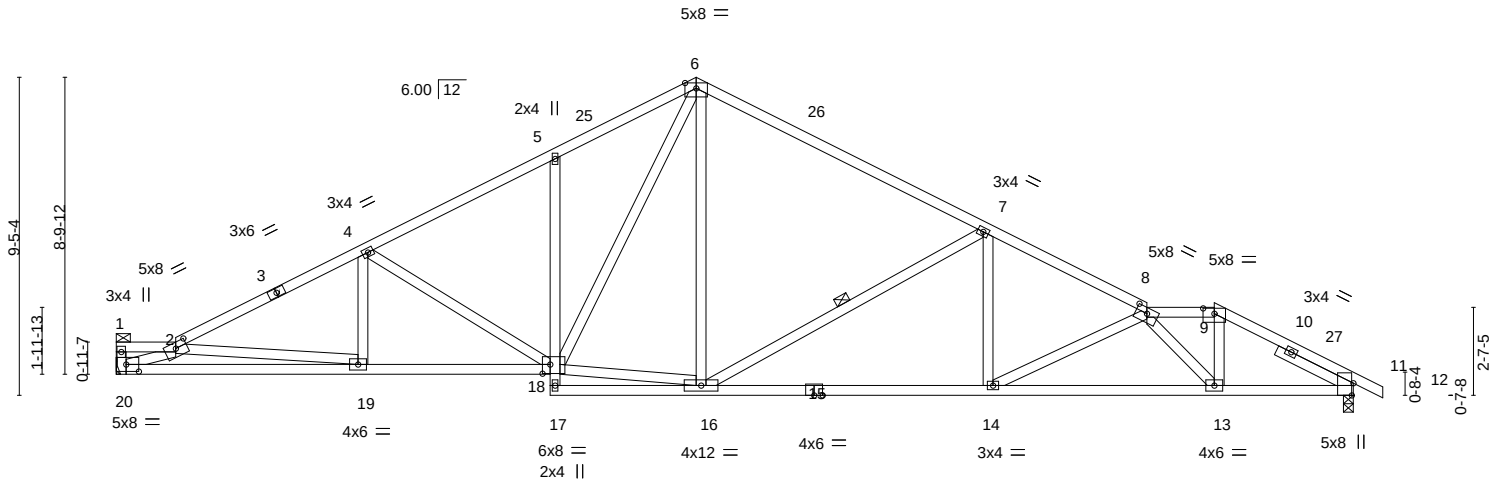
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A7 | Roof Special | 1 | 1 | I47222739 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:15 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-JWDtW8QCnTK2kjs3p1k6X5sVwBxqxGttrIDhcfytDuY

| 1-9-3 | 7-3-13 | 12-10-8 | 17-2-8 | 23-10-12 | 25-10-7 | 30-7-0 | 32-7-0 | 36-8-8 | 37-7-0 |
|---|---|---|---|---|---|---|---|---|---|
| 1-9-3 | 5-6-11 | 5-6-11 | 4-4-0 | 6-8-4 | 1-11-11 | 4-8-9 | 2-0-0 | 4-1-8 | 0-10-8 |

Scale = 1:68.4




| 1-9-3 | 7-3-13 | 12-10-8 | 17-2-8 | 21-8-12 | 25-10-7 | 30-7-0 | 32-7-0 | 36-8-8 |
|---|---|---|---|---|---|---|---|---|
| 1-9-3 | 5-6-11 | 5-6-11 | 4-4-0 | 4-6-4 | 4-1-11 | 4-8-9 | 2-0-0 | 4-1-8 |

Plate Offsets (X,Y)-- [2:0-4-0,0-2-1], [8:0-4-0,0-2-0], [9:0-4-0,0-1-15], [11:0-4-5,Edge], [18:0-2-12,0-3-4], [20:0-4-8,0-2-8]

| 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 | 0.68 | Vert(LL) | -0.23 | 14-16 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.96 | Vert(CT) | -0.50 | 14-16 | >886 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.53 | Horz(CT) | 0.16 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 172 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except* 6-8: 2x4 SPF 1650F 1.5E |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-6-6 max.): 1-2, 8-9. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 7-16 |

**REACTIONS.** (size) 11=0-3-8, 20=Mechanical
Max Horz 20=-159(LC 13)
Max Uplift 11=-236(LC 13), 20=-199(LC 12)
Max Grav 11=1707(LC 1), 20=1645(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-4=-3130/365, 4-5=-2510/355, 5-6=-2437/418, 6-7=-2040/333, 7-8=-3074/407, 8-9=-2395/348, 9-11=-2824/375 |
| BOT CHORD | 19-20=-550/3384, 18-19=-357/2741, 5-18=-332/159, 14-16=-236/2715, 13-14=-392/3479, 11-13=-267/2469 |
| WEBS | 2-19=-648/194, 4-19=0/333, 4-18=-686/182, 8-13=-1615/203, 9-13=-100/1207, 2-20=-3518/544, 6-16=-98/554, 7-16=-1174/305, 7-14=-10/585, 8-14=-856/174, 16-18=-49/1513, 6-18=-259/1035 |

**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 1-9-3, Interior(1) 1-9-3 to 17-2-8, Exterior(2R) 17-2-8 to 20-2-8, Interior(1) 20-2-8 to 32-7-0, Exterior(2R) 32-7-0 to 35-7-0, Interior(1) 35-7-0 to 37-7-0 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 100 lb uplift at joint(s) except (jt=lb) 11=236, 20=199.
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.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A8 | Roof Special Girder | 1 | 1 | I47222740 |

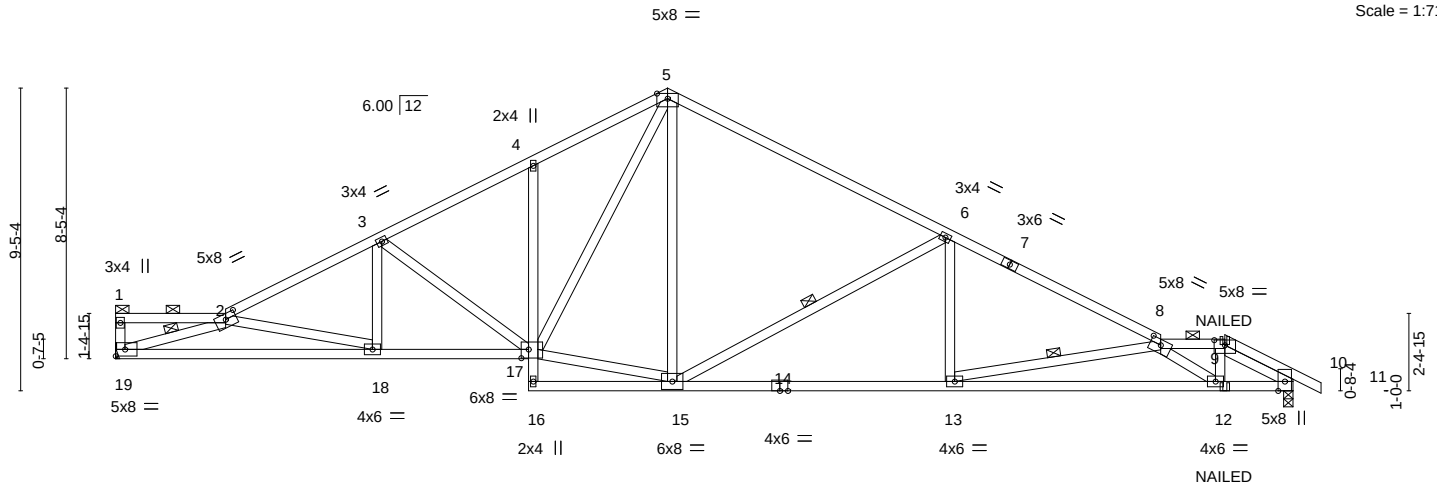
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:17 2021 Page 1

ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-FvLdxqRTJ4bmz10SwSmbcWype?eQP9YAJciogXytDuW

| 3-5-3 | 8-1-13 | 12-10-8 | 17-2-8 | 22-4-0 | 26-0-3 | 27-5-8 | 32-7-0 | 34-7-0 | 36-8-8 | 37-7-0 |
|---|---|---|---|---|---|---|---|---|---|---|
| 3-5-3 | 4-8-11 | 4-8-11 | 4-4-0 | 5-1-8 | 3-8-3 | 1-5-5 | 5-1-8 | 2-0-0 | 2-1-8 | 0-10-8 |

Scale = 1:71.8




| 3-5-3 | 8-1-13 | 12-10-8 | 17-2-8 | 26-0-3 | 32-7-0 | 34-7-0 | 36-8-8 |
|---|---|---|---|---|---|---|---|
| 3-5-3 | 4-8-11 | 4-8-11 | 4-4-0 | 8-9-11 | 6-6-13 | 2-0-0 | 2-1-8 |

Plate Offsets (X,Y)-- [2:0-4-0,0-2-1], [8:0-4-0,0-2-0], [9:0-4-0,0-1-15], [17:0-2-12,0-3-4]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.79 | Vert(LL) | -0.27 | 17-18 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.95 | Vert(CT) | -0.55 | 13-15 | >805 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.59 | Horz(CT) | 0.16 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MS | | | | | | | Weight: 176 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except* 5-7: 2x4 SP 2400F 2.0E, 7-8: 2x4 SPF 1650F 1.5E |
| BOT CHORD | 2x4 SPF No.2 *Except* 17-19,10-14: 2x4 SPF 1650F 1.5E |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Right 2x4 SPF No.2 2-4-14 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-7-15 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-7 max.): 1-2, 8-9. |
| BOT CHORD | Rigid ceiling directly applied or 9-3-13 oc bracing. |
| WEBS | 1 Row at midpt 2-19, 6-15, 8-13 |

**REACTIONS.** (size) 19=Mechanical, 10=0-3-8
Max Horz 19=-168(LC 9)
Max Uplift 19=-202(LC 8), 10=-237(LC 9)
Max Grav 19=1645(LC 1), 10=1707(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-3=-3324/372, 3-4=-2639/325, 4-5=-2592/411, 5-6=-2043/285, 6-8=-3147/413, 8-9=-2510/316, 9-10=-913/178 |
| BOT CHORD | 18-19=-592/4096, 17-18=-346/2918, 4-17=-308/149, 13-15=-252/2757, 12-13=-547/4308, 10-12=-252/2366 |
| WEBS | 2-18=-1214/254, 3-18=0/467, 3-17=-785/169, 15-17=-73/1630, 5-17=-275/1292, 5-15=-102/457, 8-12=-2237/353, 9-12=-128/1363, 2-19=-4222/573, 6-15=-1219/320, 6-13=0/576, 8-13=-1585/301 |

**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) except (jt=lb) 19=202, 10=237.
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


July 30,2021

Continued on page 2



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**LOAD CASE(S)** Standard

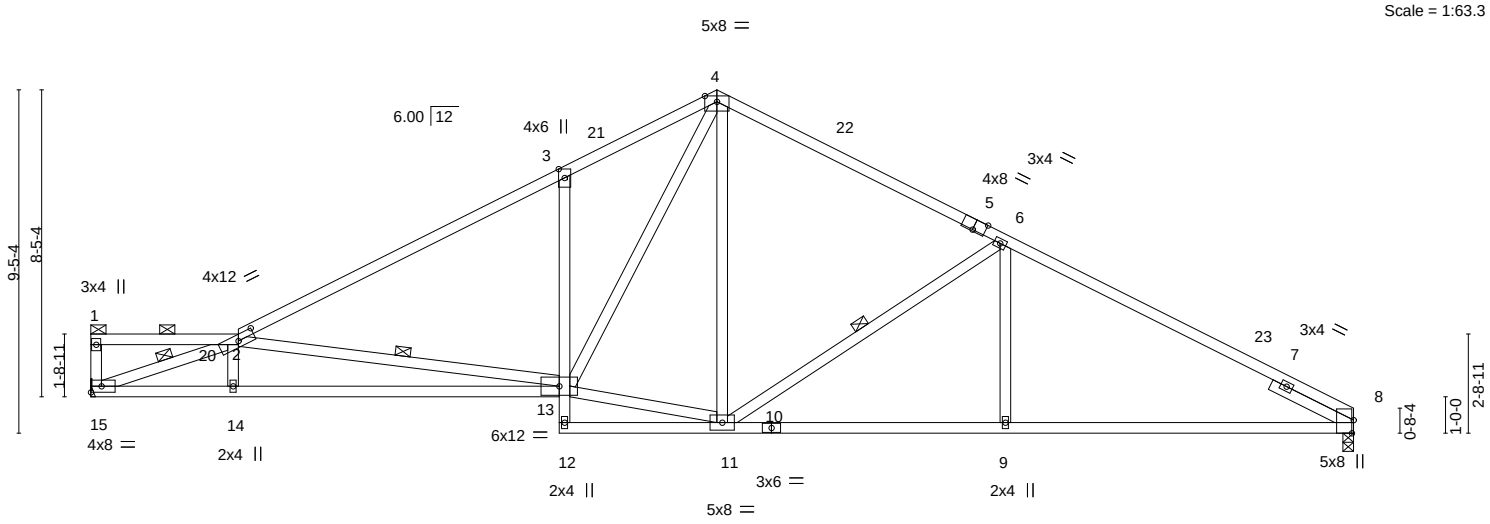
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 2-5=-70, 5-8=-70, 8-9=-70, 9-11=-70, 17-19=-20, 16-20=-20
   Concentrated Loads (lb)
   Vert: 12=0(F)

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A9 | Roof Special | 1 | 1 | I47222741 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:18 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-j5v?8AS54OjcbBbeU9Hq9kUzrO048b?KXGRLD_ytDuV

| 4-0-11 | 8-5-9 | 12-10-8 | 17-2-8 | 22-11-5 | 25-1-11 | 28-8-3 | 34-8-8 |
|---|---|---|---|---|---|---|---|
| 4-0-11 | 4-4-15 | 4-4-15 | 4-4-0 | 5-8-13 | 2-2-5 | 3-6-8 | 6-0-5 |

Scale = 1:63.3




| 4-0-11 | 12-10-8 | 17-2-8 | 20-0-11 | 25-1-11 | 27-2-13 | 34-8-8 |
|---|---|---|---|---|---|---|
| 4-0-11 | 8-9-13 | 4-4-0 | 2-10-3 | 5-1-0 | 2-1-3 | 7-5-11 |

Plate Offsets (X,Y)-- [2:0-5-8,0-2-0], [5:0-4-0,Edge], [8:0-4-5,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 | 0.83 | Vert(LL) | -0.25 | 13-14 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.80 | Vert(CT) | -0.59 | 13-14 | >702 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.64 | Horz(CT) | 0.13 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 152 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except* 2-4: 2x4 SPF 1650F 1.5E |
| BOT CHORD | 2x4 SPF No.2 *Except* 13-15: 2x4 SPF 1650F 1.5E |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Right 2x4 SPF No.2 2-6-0 |

**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 2-13, 6-11, 2-15 |

**REACTIONS.** (size) 15=Mechanical, 8=0-3-8
Max Horz 15=-156(LC 13)
Max Uplift 15=-197(LC 12), 8=-199(LC 13)
Max Grav 15=1555(LC 1), 8=1555(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-3=-2573/327, 3-4=-2456/420, 4-6=-1832/313, 6-8=-2553/332 |
| BOT CHORD | 14-15=-515/3761, 13-14=-522/3751, 3-13=-514/255, 9-11=-190/2196, 8-9=-190/2196 |
| WEBS | 2-13=-1591/301, 4-11=-112/348, 11-13=-13/1502, 4-13=-292/1356, 6-11=-854/272, 6-9=0/347, 2-15=-3923/480, 2-14=0/292 |

**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 17-2-8, Exterior(2R) 17-2-8 to 20-2-8 , Interior(1) 20-2-8 to 34-8-8 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=197, 8=199.
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.


July 30,2021



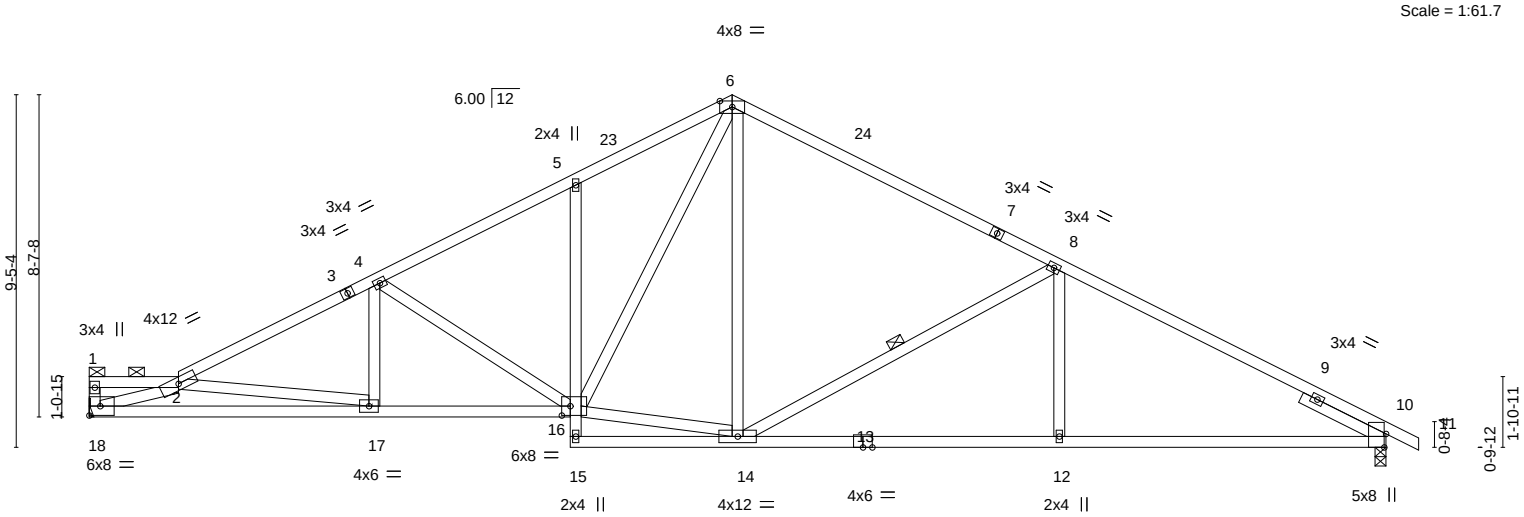

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A10 | Roof Special | 1 | 1 | I47222742 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:03 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-fCVL?2GhcnqlItxm6WWI2ZNNOLrU7pz65QJ2BLytDuk

| 2-4-11 | 7-7-9 | 12-10-8 | 17-2-8 | 22-11-5 | 25-11-9 | 28-8-3 | 34-8-8 | 35-7-0 |
|---|---|---|---|---|---|---|---|---|
| 2-4-11 | 5-2-15 | 5-2-15 | 4-4-0 | 5-8-13 | 3-0-4 | 2-8-9 | 6-0-5 | 0-10-8 |

Scale = 1:61.7




| 2-4-11 | 7-7-9 | 12-10-8 | 17-2-8 | 20-0-11 | 25-11-9 | 27-2-13 | 34-8-8 |
|---|---|---|---|---|---|---|---|
| 2-4-11 | 5-2-15 | 5-2-15 | 4-4-0 | 2-10-3 | 5-10-15 | 1-3-4 | 7-5-11 |

Plate Offsets (X,Y)-- [10:0-4-5,Edge], [16:0-2-12,0-3-0]

| 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 | 0.91 | Vert(LL) | -0.21 | 16-17 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.99 | Vert(CT) | -0.41 | 12-14 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.59 | Horz(CT) | 0.14 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 156 lb | FT = 20% |

**LUMBER-**

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

**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 8-14 |

**REACTIONS.** (size) 18=Mechanical, 10=0-3-8
Max Horz 18=-164(LC 13)
Max Uplift 18=-195(LC 12), 10=-216(LC 13)
Max Grav 18=1555(LC 1), 10=1617(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3033/358, 4-5=-2367/333, 5-6=-2300/394, 6-8=-1850/307, 8-10=-2410/339
BOT CHORD 17-18=-593/3731, 16-17=-347/2658, 5-16=-315/154, 12-14=-191/2243, 10-12=-191/2243
WEBS 2-17=-1087/250, 4-17=0/386, 4-16=-745/181, 2-18=-3799/577, 6-14=-83/380, 14-16=-52/1424, 6-16=-263/1114, 8-14=-859/277, 8-12=0/338

**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 2-4-11, Interior(1) 2-4-11 to 17-2-8, Exterior(2R) 17-2-8 to 20-2-8 , Interior(1) 20-2-8 to 35-7-0 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 100 lb uplift at joint(s) except (jt=lb) 18=195, 10=216.
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.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A11 | Roof Special | 1 | 1 | I47222743 |

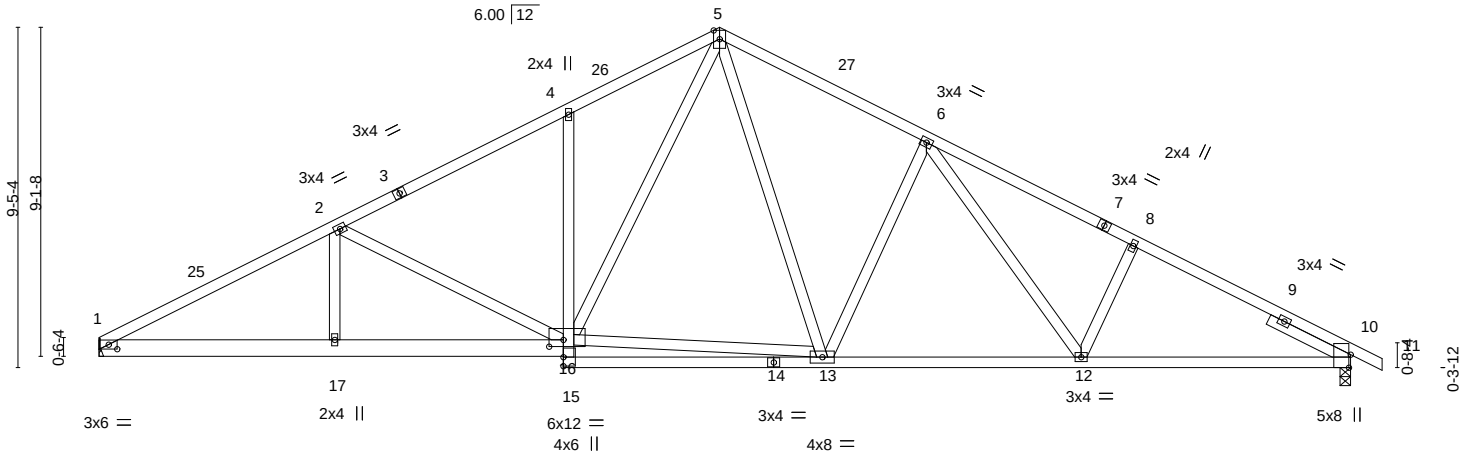
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:04 2021 Page 1

ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-7P3jCOHJN4ycw1WyfD1Xanve4lE3sG1GJ42cjoytDuj

| 6-6-7 | 12-10-8 | 17-2-8 | 22-11-5 | 28-8-3 | 34-8-8 | 35-7-0 |
|---|---|---|---|---|---|---|
| 6-6-7 | 6-4-1 | 4-4-0 | 5-8-13 | 5-8-13 | 6-0-5 | 0-10-8 |

Scale: 3/16"=1'




| 6-6-7 | 12-10-8 | 20-0-11 | 27-2-13 | 34-8-8 |
|---|---|---|---|---|
| 6-6-7 | 6-4-1 | 7-2-3 | 7-2-3 | 7-5-11 |

Plate Offsets (X,Y)-- [1:0-2-13,0-1-8], [10:0-4-5,Edge], [16:0-4-12,0-2-4]

| 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 | 0.53 | Vert(LL) | -0.16 | 12-13 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.78 | Vert(CT) | -0.31 | 12-13 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.61 | Horz(CT) | 0.10 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 164 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 *Except* 1-16: 2x6 SPF No.2 |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied. |
| BOT CHORD | Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 15-16 |

**REACTIONS.** (size) 1=Mechanical, 10=0-3-8
Max Horz 1=-155(LC 13)
Max Uplift 1=-195(LC 12), 10=-214(LC 13)
Max Grav 1=1561(LC 1), 10=1624(LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-2=-2897/356, 2-4=-2267/326, 4-5=-2211/399, 5-6=-2021/352, 6-8=-2535/386, 8-10=-2648/348 |
| BOT CHORD | 1-17=-368/2510, 16-17=-368/2510, 4-16=-386/186, 13-15=-33/497, 12-13=-136/1967, 10-12=-224/2300 |
| WEBS | 2-17=0/270, 2-16=-659/196, 13-16=-49/1013, 5-16=-249/945, 5-13=-169/715, 6-13=-625/243, 6-12=-110/447, 8-12=-273/163 |

**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 17-2-8, Exterior(2R) 17-2-8 to 20-2-8, Interior(1) 20-2-8 to 35-7-0 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) 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) except (jt=lb) 1=195, 10=214.
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.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A12 | Roof Special | 1 | 1 | I47222744 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:05 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-bbc5QjIx8O4SXB58DxYm7_SmB9X_bhBPYko9FEytDui

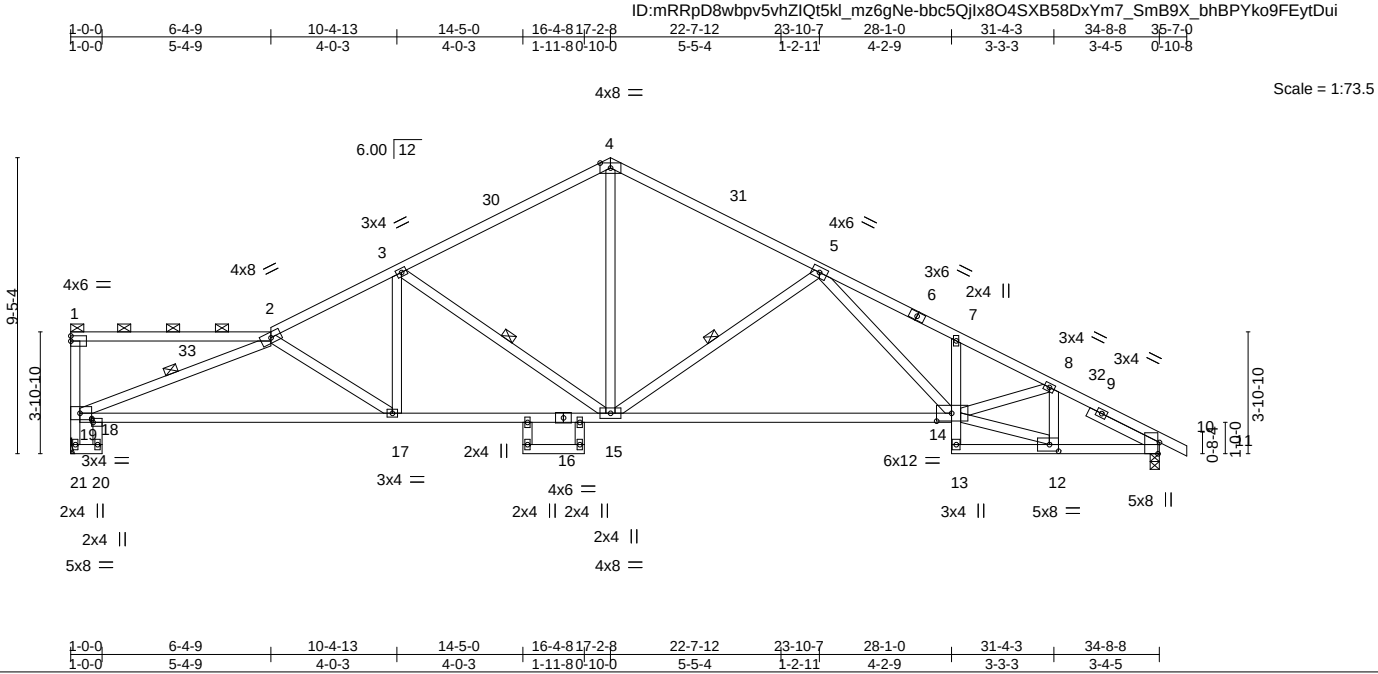



Plate Offsets (X,Y)-- [10:0-4-5,Edge], [12:0-3-8,0-2-8], [14:0-5-12,0-3-0], [18:0-0-8,0-1-8], [19:0-4-8,0-2-8]

| 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 | 0.76 | Vert(LL) | -0.42 | 14-15 | >994 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.99 | Vert(CT) | -0.92 | 14-15 | >450 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.74 | Horz(CT) | 0.24 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 161 lb | FT = 20% |

**LUMBER-**

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

**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 3-15, 5-15, 2-19 |

**REACTIONS.** (size) 21=Mechanical, 10=0-3-8
Max Horz 21=-200(LC 10)
Max Uplift 21=-201(LC 12), 10=-212(LC 13)
Max Grav 21=1555(LC 1), 10=1617(LC 1)

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

| | |
|---|---|
| TOP CHORD | 19-21=-1495/195, 2-3=-2790/343, 3-4=-2005/303, 4-5=-2004/319, 5-7=-3601/456, 7-8=-3525/398, 8-10=-2559/329 |
| BOT CHORD | 18-19=-352/3075, 17-18=-377/2991, 15-17=-248/2432, 14-15=-176/2422, 7-14=-273/101, 10-12=-231/2213 |
| WEBS | 4-15=-118/1226, 3-15=-892/219, 3-17=-13/513, 5-15=-891/273, 8-12=-750/93, 12-14=-178/2248, 8-14=-38/971, 2-19=-3079/432, 2-17=-669/154, 5-14=-131/1120 |

**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 3-7-6, Interior(1) 3-7-6 to 17-2-8, Exterior(2R) 17-2-8 to 20-8-2, Interior(1) 20-8-2 to 35-7-0 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 100 lb uplift at joint(s) except (jt=lb) 21=201, 10=212.
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.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | A13 | Roof Special | 1 | 1 | I47222745 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:06 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-4nATd3JZviCJ9LgLne4?gC?yIZuwKBBZnOXingytDuh

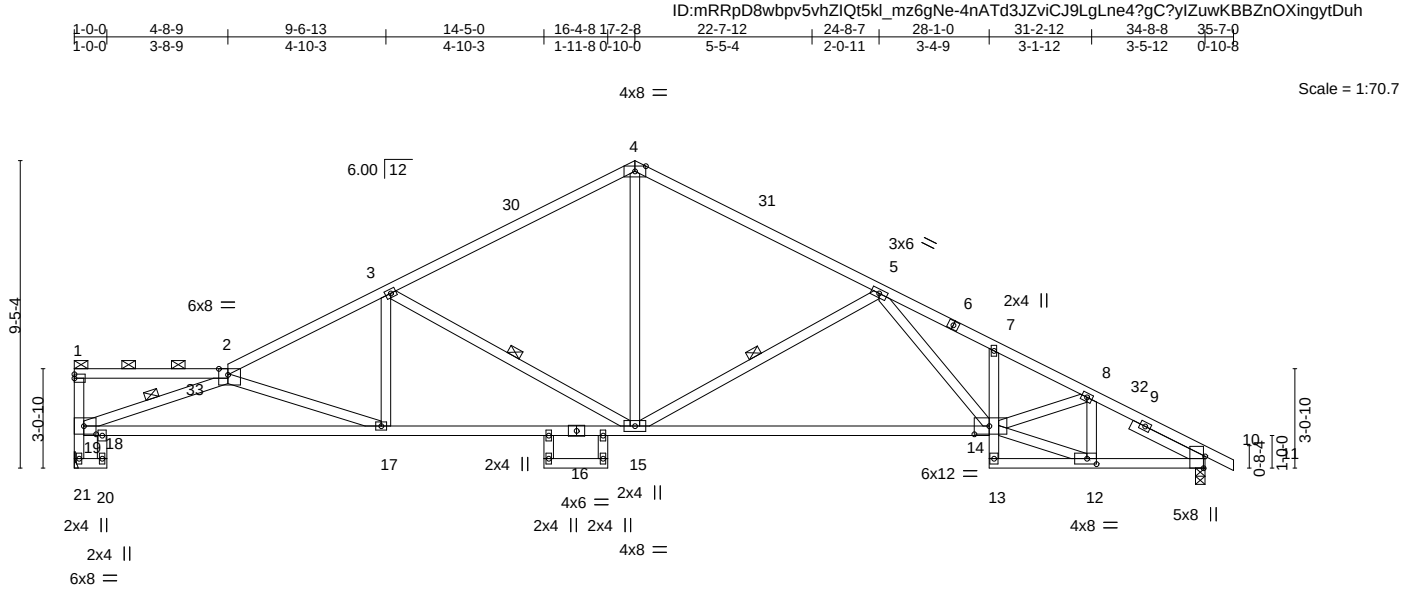



Plate Offsets (X,Y)-- [2:0-3-6,Edge], [10:0-4-5,Edge], [12:0-3-8,0-2-0], [14:0-5-8,0-3-0], [19:0-4-8,0-3-0]

| 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) | -0.38 | 14-15 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.95 | Vert(CT) | -0.86 | 14-15 | >484 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.56 | Horz(CT) | 0.25 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 158 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
14-16: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 2-6-0

**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 3-15, 2-19, 5-15

**REACTIONS.** (size) 21=Mechanical, 10=0-3-8
Max Horz 21=-178(LC 10)
Max Uplift 21=-197(LC 12), 10=-212(LC 13)
Max Grav 21=1555(LC 1), 10=1617(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 19-21=-1499/211, 2-3=-2910/349, 3-4=-2028/306, 4-5=-2025/316, 5-7=-3537/426, 7-8=-3518/397, 8-10=-2566/331
BOT CHORD 18-19=-440/3411, 17-18=-477/3353, 15-17=-303/2555, 14-15=-204/2549, 10-12=-232/2220
WEBS 8-12=-783/97, 12-14=-185/2271, 8-14=-36/963, 4-15=-99/1179, 3-15=-975/259, 3-17=0/472, 2-17=-852/186, 2-19=-3421/490, 5-15=-977/291, 5-14=-75/965

**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 3-7-6, Interior(1) 3-7-6 to 17-2-8, Exterior(2R) 17-2-8 to 20-8-2, Interior(1) 20-8-2 to 35-7-0 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) All plates are 3x4 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=197, 10=212.
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.


July 30,2021



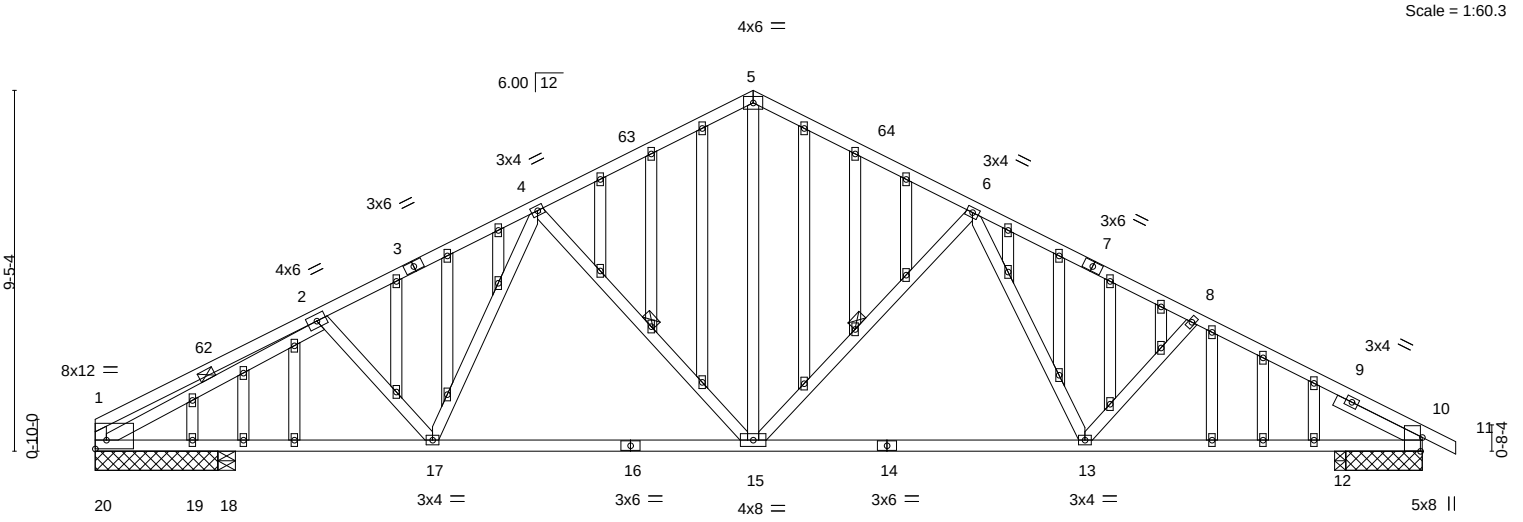
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | AG1 | Common Structural Gable | 1 | 1 | I47222746 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:19 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-BHTOMWTjrhrTDKAr2to3hx1BtoOqt4_TmwBulQytDuU

| 5-11-3 | 11-6-13 | 17-2-8 | 22-11-5 | 28-8-3 | 34-8-8 | 35-7-0 |
|---|---|---|---|---|---|---|
| 5-11-3 | 5-7-11 | 5-7-11 | 5-8-13 | 5-8-13 | 6-0-5 | 0-10-8 |

Scale = 1:60.3




| 3-2-8 | 8-9-14 | 17-2-8 | 25-10-10 | 32-8-8 | 34-8-8 |
|---|---|---|---|---|---|
| 3-2-8 | 5-7-6 | 8-4-10 | 8-8-2 | 6-9-14 | 2-0-0 |

Plate Offsets (X,Y)-- [1:Edge,0-2-12], [10:0-4-5,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 | 0.62 | Vert(LL) | -0.16 | 13-15 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.70 | Vert(CT) | -0.36 | 13-15 | >965 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.46 | Horz(CT) | 0.12 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 217 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 | Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 4-15, 6-15, 2-20 |

**REACTIONS.** All bearings 3-2-8 except (jt=length) 10=2-0-0, 18=0-5-8, 12=0-3-8.
(lb) - Max Horz 20=-150(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) except 20=-219(LC 12), 10=-220(LC 13), 19=-168(LC 1)
Max Grav All reactions 250 lb or less at joint(s) 19, 12 except 20=1471(LC 1), 10=1519(LC 1), 18=262(LC 3)

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

| | |
|---|---|
| TOP CHORD | 1-2=-512/162, 2-4=-2270/349, 4-5=-1733/322, 5-6=-1737/320, 6-8=-2354/348, 8-10=-2554/358, 1-20=-391/131 |
| BOT CHORD | 19-20=-373/2080, 18-19=-373/2080, 17-18=-373/2080, 15-17=-237/1844, 13-15=-143/1905, 12-13=-233/2210, 10-12=-233/2210 |
| WEBS | 4-17=-64/309, 4-15=-603/231, 5-15=-152/1098, 6-15=-671/236, 6-13=-60/372, 8-13=-260/167, 2-20=-1991/199 |

**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 17-2-8, Exterior(2R) 17-2-8 to 20-2-8 , Interior(1) 20-2-8 to 35-7-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 1-4-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 219 lb uplift at joint 20, 220 lb uplift at joint 10 and 168 lb uplift at joint 19.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

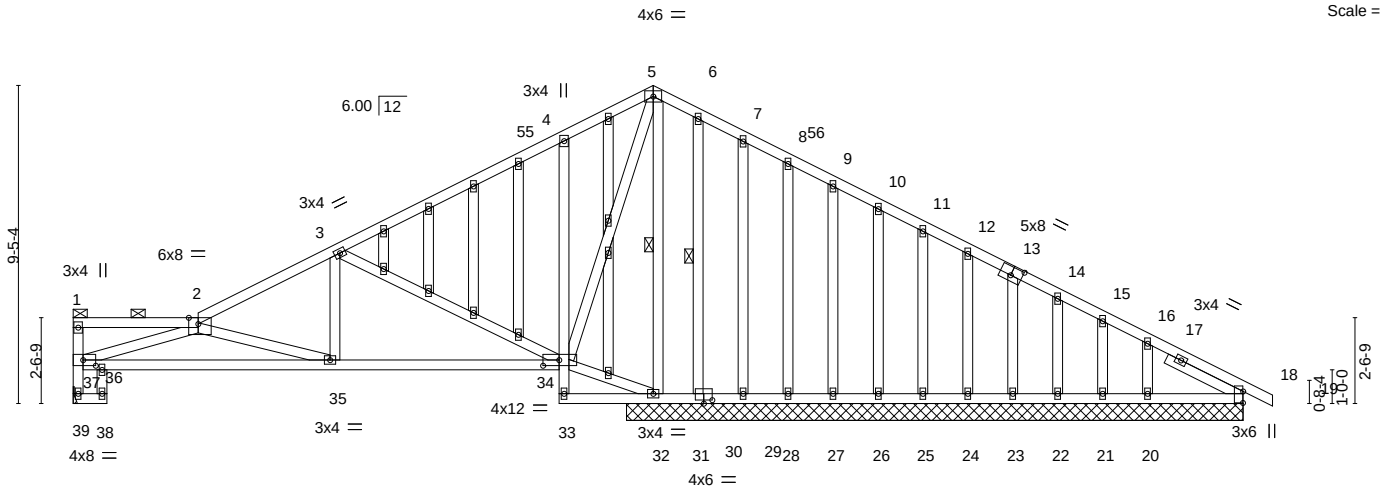
| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | AG2 | GABLE | 1 | 1 | I47222747 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:22 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-cs8W_XVb7cD24ouQj?MmJaflG0Tp4MOvSuPZMlytDuR

| 1-0-0 | 3-8-8 | 7-9-3 | 9-0-12 | 14-5-0 | 17-2-8 | 22-11-5 | 23-10-10 | 28-8-3 | 34-8-8 | 35-7-0 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-0-0 | 2-8-8 | 4-0-11 | 1-3-9 | 5-4-4 | 2-9-8 | 5-8-13 | 0-11-5 | 4-9-8 | 6-0-5 | 0-10-8 |

Scale = 1:68.4




| 1-0-0 | 3-8-8 | 7-9-3 | 9-0-12 | 14-5-0 | 17-2-8 | 21-1-0 | 23-10-10 | 27-9-0 | 28-8-3 | 34-8-8 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-0-0 | 2-8-8 | 4-0-11 | 1-3-9 | 5-4-4 | 2-9-8 | 3-10-8 | 2-9-10 | 3-10-6 | 0-11-3 | 6-0-5 |

Plate Offsets (X,Y)-- [2:0-3-6,Edge], [13:0-4-0,0-3-0], [18:0-4-1,0-0-1], [30:0-3-0,0-1-4], [34:0-5-12,0-2-0], [37:0-4-8,0-2-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.42 | Vert(LL) | -0.06 | 35-36 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.43 | Vert(CT) | -0.12 | 35-36 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.80 | Horz(CT) | 0.05 | 32 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 228 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 | Right 2x4 SPF No.2 2-6-0 |

**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 5-32, 6-31 |

**REACTIONS.** All bearings 18-3-8 except (jt=length) 39=Mechanical.
(lb) - Max Horz 39=-165(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 39, 26, 31, 29, 28, 27, 25, 24, 23, 22, 21, 20 except 18=-216(LC 25), 32=-189(LC 12), 18=-102(LC 1)
Max Grav All reactions 250 lb or less at joint(s) 18, 26, 31, 29, 28, 27, 25, 24, 23, 22, 21 except 39=547(LC 1), 32=1271(LC 1), 20=331(LC 1)

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

| | |
|---|---|
| TOP CHORD | 37-39=-518/99, 2-3=-656/102, 3-4=-35/323, 4-5=-27/277, 5-6=0/478, 6-7=0/513, 7-8=-9/496, 8-9=-24/497, 9-10=-40/498, 10-11=-55/497, 11-12=-71/497, 12-13=-86/497, 13-14=-102/497, 14-15=-118/501, 15-16=-128/474, 16-18=-158/545 |
| BOT CHORD | 36-37=-201/1060, 35-36=-232/1025, 34-35=-93/545, 4-34=-394/189, 31-32=-431/166, 29-31=-431/166, 28-29=-431/166, 27-28=-431/166, 26-27=-431/166, 25-26=-431/166, 24-25=-431/166, 23-24=-431/166, 22-23=-431/166, 21-22=-431/166, 20-21=-431/166, 18-20=-431/166 |
| WEBS | 2-37=-949/239, 5-32=-1002/133, 32-34=-422/193, 5-34=-186/710, 3-34=-802/208, 3-35=0/381, 2-35=-504/145 |

**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 3-8-8, Interior(1) 3-8-8 to 17-2-8, Exterior(2R) 17-2-8 to 20-8-2, Interior(1) 20-8-2 to 35-7-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 39, 26, 31, 29, 28, 27, 25, 24, 23, 22, 21, 20 except (jt=lb) 18=216, 32=189, 18=216.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and reference standard ANSI/TPI 1.

Continued on page 2

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**NOTES-**

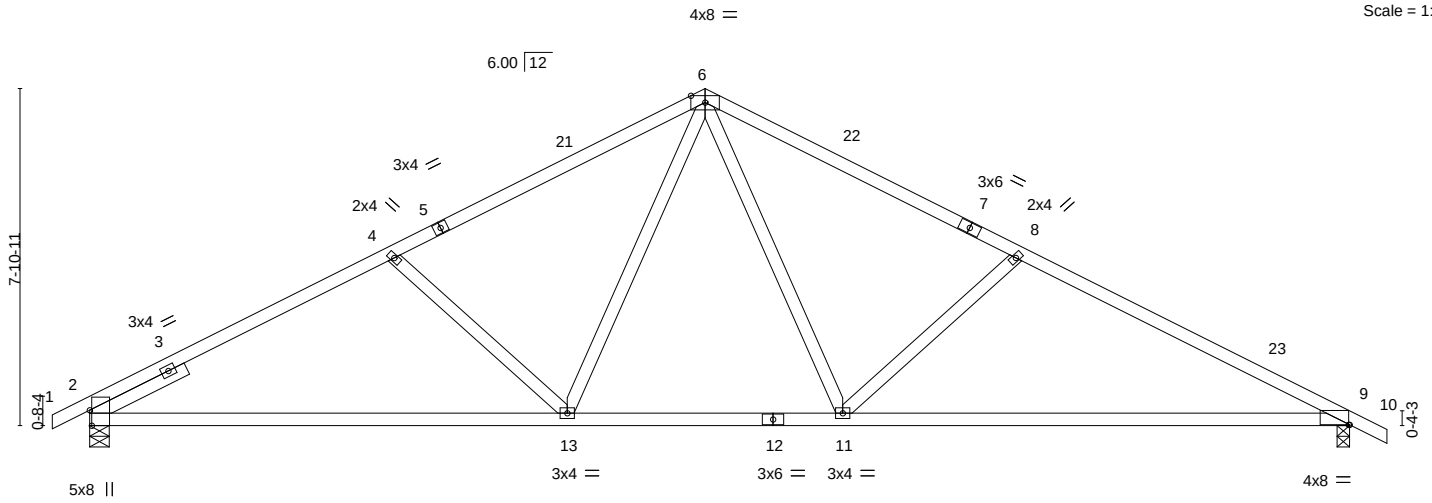
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom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

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | B2 | Common | 6 | 1 | I47222748 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:23 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-43iuBtWDuwLviyTcHjt?snCrTPhNpwk3hY96uBytDuQ

| -0-10-8 | 7-1-9 | 14-4-15 | 21-8-3 | 29-6-0 | 30-4-8 |
|---|---|---|---|---|---|
| 0-10-8 | 7-1-9 | 7-3-6 | 7-3-5 | 7-9-13 | 0-10-8 |

Scale = 1:53.9




| 11-2-3 | 17-7-9 | 29-6-0 |
|---|---|---|
| 11-2-3 | 6-5-6 | 11-10-7 |

Plate Offsets (X,Y)-- [2:0-4-5,Edge], [9:0-0-4,0-0-0]

| 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 | 0.71 | Vert(LL) | -0.41 | 11-20 | >861 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.92 | Vert(CT) | -0.89 | 11-20 | >397 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.35 | Horz(CT) | 0.08 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 107 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
9-12: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-6-0

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

**REACTIONS.** (size) 2=0-5-8, 9=0-3-8
Max Horz 2=-133(LC 13)
Max Uplift 2=-180(LC 12), 9=-186(LC 13)
Max Grav 2=1389(LC 1), 9=1389(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2000/305, 4-6=-1817/290, 6-8=-1893/296, 8-9=-2298/318
BOT CHORD 2-13=-284/1859, 11-13=-70/1321, 9-11=-192/2004
WEBS 4-13=-503/236, 6-13=-103/539, 6-11=-117/672, 8-11=-601/257

**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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-4-15, Exterior(2R) 14-4-15 to 17-4-15, Interior(1) 17-4-15 to 30-4-8 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=180, 9=186.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


July 30,2021



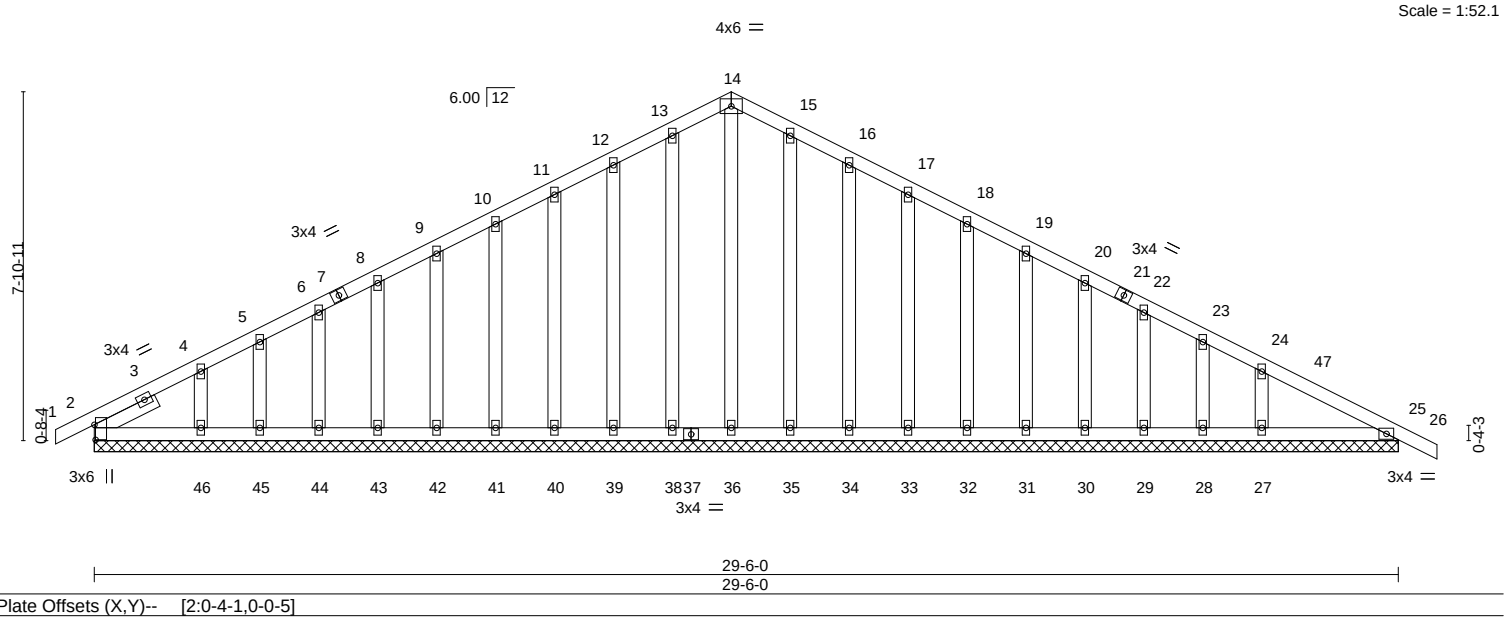
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | BG | Common Supported Gable | 1 | 1 | I47222749 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:24 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-YFGHPDXsfETmJ62oqQOEO?kAmpF2YQACwCufQeytDuP

-0-10-8 14-4-15 29-6-0 30-4-8
0-10-8 14-4-15 15-1-1 0-10-8

Scale = 1:52.1




29-6-0
29-6-0

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

| 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 | 0.10 | Vert(LL) | 0.00 | 26 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.06 | Vert(CT) | 0.00 | 26 | n/r | 120 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.15 | Horz(CT) | 0.01 | 25 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 166 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-6-9

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

**REACTIONS.** All bearings 29-6-0.
(lb) - Max Horz 2=-132(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 2, 38, 39, 40, 41, 42, 43, 44, 45, 46, 35, 34, 33, 32, 31, 30, 29, 28, 27
Max Grav All reactions 250 lb or less at joint(s) 2, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 35, 34, 33, 32, 31, 30, 29, 28, 25 except 27=266(LC 26)

**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 Corner(3E) -0-10-8 to 2-4-15, Exterior(2N) 2-4-15 to 14-4-15, Corner(3R) 14-4-15 to 17-4-15, Exterior(2N) 17-4-15 to 30-4-8 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 38, 39, 40, 41, 42, 43, 44, 45, 46, 35, 34, 33, 32, 31, 30, 29, 28, 27.
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.


July 30,2021




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | D1 | Roof Special Girder | 1 | 2 | I47222750 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:26 2021 Page 1

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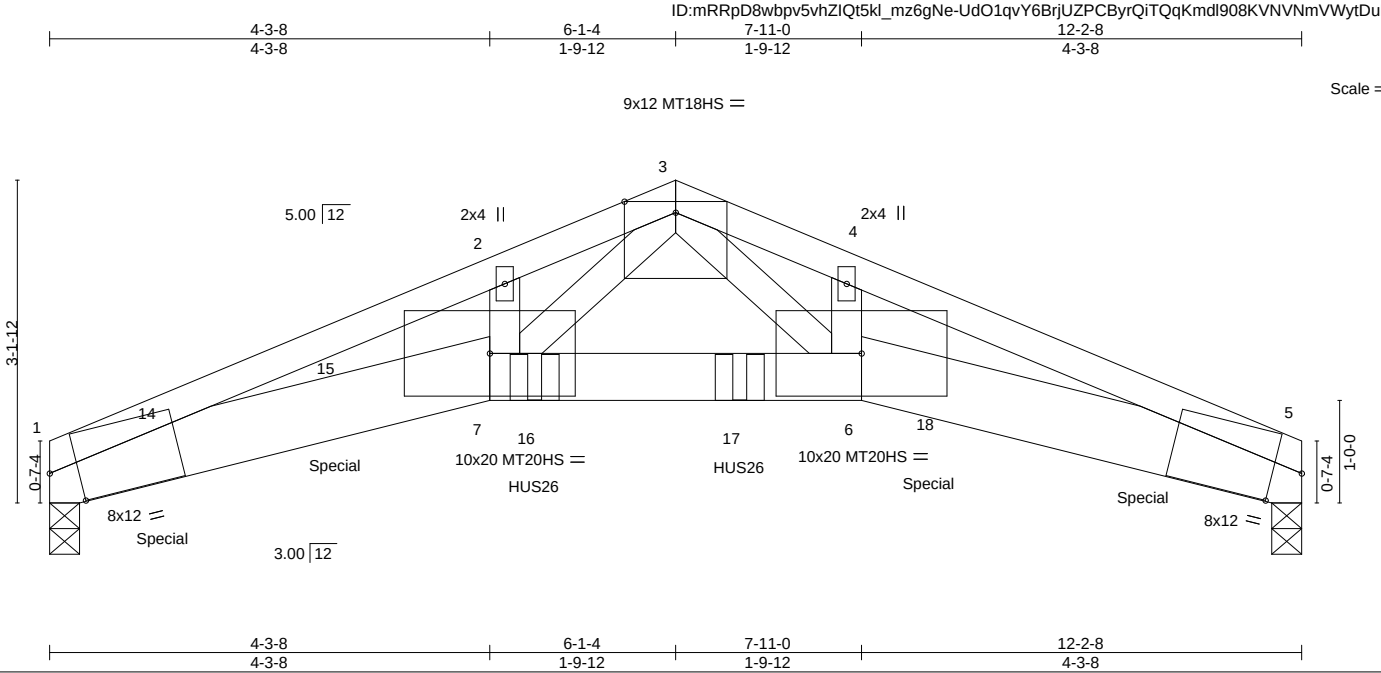


Plate Offsets (X,Y)-- [1:0-3-5,0-4-1], [5:0-3-5,0-4-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.90 | Vert(LL) | -0.23 | 6-7 | >630 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.78 | Vert(CT) | -0.41 | 6-7 | >353 | 180 | MT20HS | 148/108 |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.94 | Horz(CT) | 0.19 | 5 | n/a | n/a | MT18HS | 197/144 |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 122 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x8 SP 2400F 2.0E *Except*
6-7: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-8-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8
Max Horz 1=40(LC 33)
Max Uplift 1=-727(LC 8), 5=-650(LC 9)
Max Grav 1=5631(LC 1), 5=4959(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-15708/2031, 2-3=-15184/2013, 3-4=-14809/1942, 4-5=-15334/1958
BOT CHORD 1-7=-1924/14920, 6-7=-1097/8762, 5-6=-1827/14656
WEBS 4-6=-130/992, 2-7=-127/989, 3-6=-975/7136, 3-7=-1038/7622

**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 0-4-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-3-0 oc, 2x6 - 2 rows staggered at 0-4-0 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) 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) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=727, 5=650.
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) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 4-8-12 from the left end to 6-8-12 to connect truss(es) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1631 lb down and 219 lb up at 0-11-12, 1625 lb down and 219 lb up at 2-8-12, and 1535 lb down and 215 lb up at 8-8-12, and 1541 lb down and 215 lb up at 10-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.


July 30,2021

Continued on page 2

**LOAD CASE(S)** Standard



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-5=-70, 7-8=-20, 6-7=-20, 6-11=-20
   Concentrated Loads (lb)
   Vert: 13=-1541(B) 14=-1631(B) 15=-1625(B) 16=-1625(B) 17=-1535(B) 18=-1535(B)

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | D2 | Common Girder | 1 | 2 | I47222751 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:27 2021 Page 1

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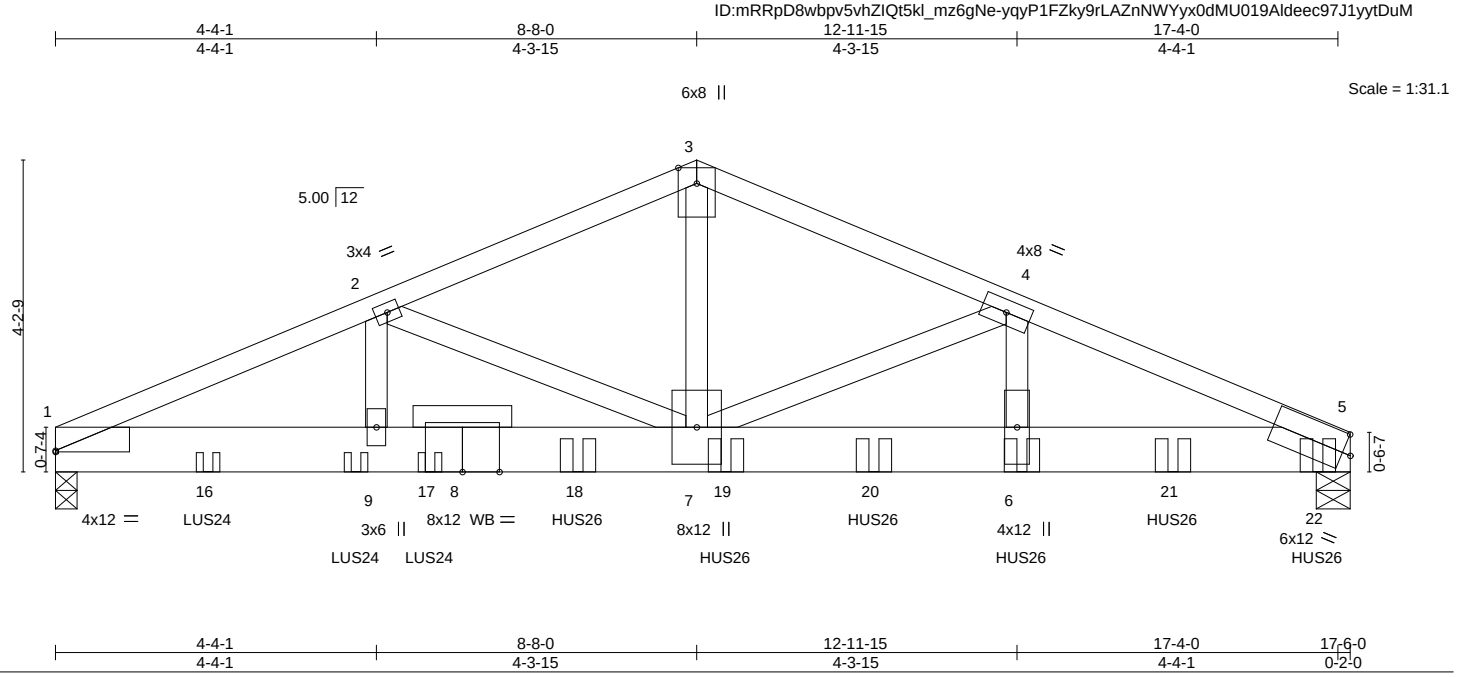



Plate Offsets (X,Y)-- [1:0-0-0,0-0-3], [5:0-1-6,0-3-3]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.93 | Vert(LL) | -0.16 | 6-7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.54 | Vert(CT) | -0.28 | 6-7 | >756 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.80 | Horz(CT) | 0.05 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MS | | | | | | | Weight: 189 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-2-1 oc purlins. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (size) 1=0-3-8, 5=0-5-8
Max Horz 1=-60(LC 30)
Max Uplift 1=-712(LC 8), 5=-1013(LC 9)
Max Grav 1=5233(LC 1), 5=7733(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-10677/1451, 2-3=-9019/1220, 3-4=-9021/1219, 4-5=-12875/1713
BOT CHORD 1-9=-1349/9797, 7-9=-1349/9797, 6-7=-1535/11850, 5-6=-1535/11850
WEBS 3-7=-851/6552, 4-7=-3938/584, 4-6=-333/2849, 2-7=-1692/317, 2-9=-132/1126

**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 0-4-0 oc.
   Bottom chords connected as follows: 2x8 - 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) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=712, 5=1013.
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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent at 2-0-12 from the left end to connect truss(es) to back face of bottom chord.
9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 1-0-0 oc max. starting at 4-0-12 from the left end to 5-0-12 to connect truss(es) to back face of bottom chord.
10) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-8 oc max. starting at 7-0-12 from the left end to 17-0-12 to connect truss(es) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.


July 30,2021

**LOAD CASE(S)** Standard

Continued on page 2



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-5=-70, 10-13=-20
   Concentrated Loads (lb)
   Vert: 6=-1535(B) 9=-720(B) 16=-738(B) 17=-527(B) 18=-1535(B) 19=-1535(B) 20=-1535(B) 21=-1631(B) 22=-1637(B)

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | D3 | Hip Girder | 1 | 1 | I47222752 |

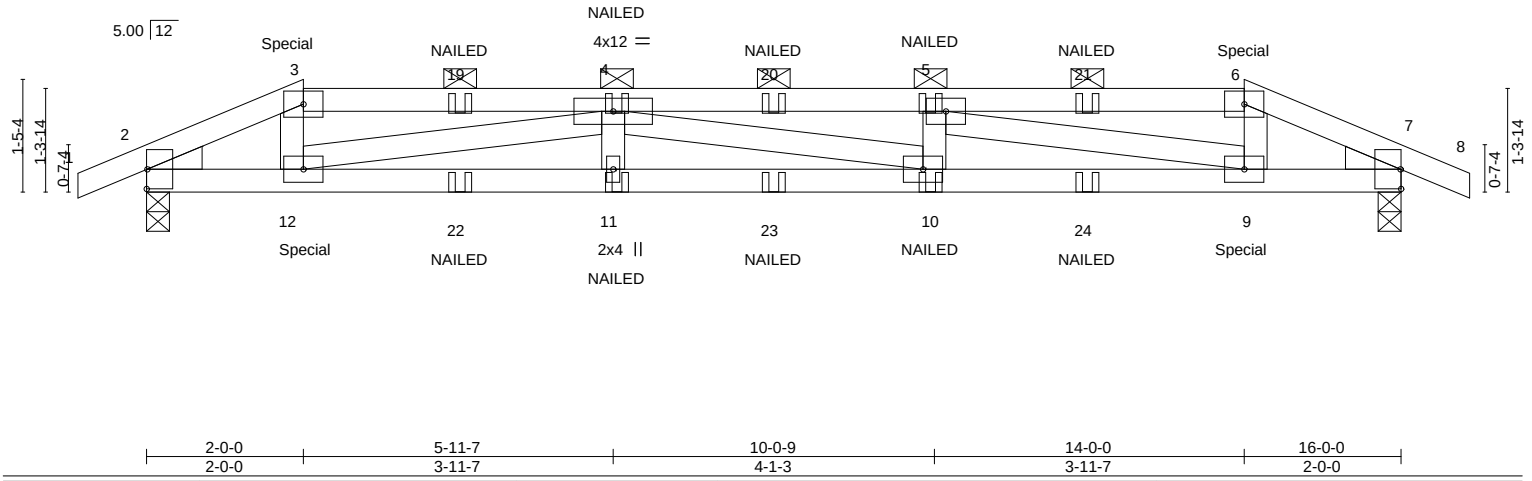
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:29 2021 Page 1

ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-uC3ASxa_Um53Qtwmdz_P52SxVqlrDcpx3TcQ5rytDuK

| -0-10-8 | 2-0-0 | 5-11-7 | 10-0-9 | 14-0-0 | 16-0-0 | 16-10-8 |
|---|---|---|---|---|---|---|
| 0-10-8 | 2-0-0 | 3-11-7 | 4-1-3 | 3-11-7 | 2-0-0 | 0-10-8 |

Scale = 1:29.4




| 2-0-0 | 5-11-7 | 10-0-9 | 14-0-0 | 16-0-0 |
|---|---|---|---|---|
| 2-0-0 | 3-11-7 | 4-1-3 | 3-11-7 | 2-0-0 |

| 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 | 0.48 | Vert(LL) | -0.18 | 10-11 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.85 | Vert(CT) | -0.32 | 10-11 | >599 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.50 | Horz(CT) | 0.05 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 58 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-10-4 oc purlins, except
2-0-0 oc purlins (3-2-11 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 7-9-10 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-17(LC 30)
Max Uplift 2=-166(LC 4), 7=-166(LC 5)
Max Grav 2=820(LC 1), 7=820(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1353/274, 3-4=-1190/252, 4-5=-2750/600, 5-6=-1190/252, 6-7=-1353/274
BOT CHORD 2-12=-231/1235, 11-12=-576/2750, 10-11=-576/2750, 9-10=-576/2750, 7-9=-233/1235
WEBS 3-12=-48/350, 4-12=-1624/362, 5-9=-1624/361, 6-9=-48/350

**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; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 4x6 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=166, 7=166.
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) 27 lb down and 59 lb up at 2-0-0, and 27 lb down and 59 lb up at 14-0-0 on top chord, and 30 lb down and 11 lb up at 2-0-0, and 30 lb down and 11 lb up at 13-11-4 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, 3-6=-70, 6-8=-70, 13-16=-20
Concentrated Loads (lb)
Vert: 12=-17(F) 11=-9(F) 10=-9(F) 9=-17(F) 22=-9(F) 23=-9(F) 24=-9(F)


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | D4 | Hip | 1 | 1 | I47222753 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:30 2021 Page 1

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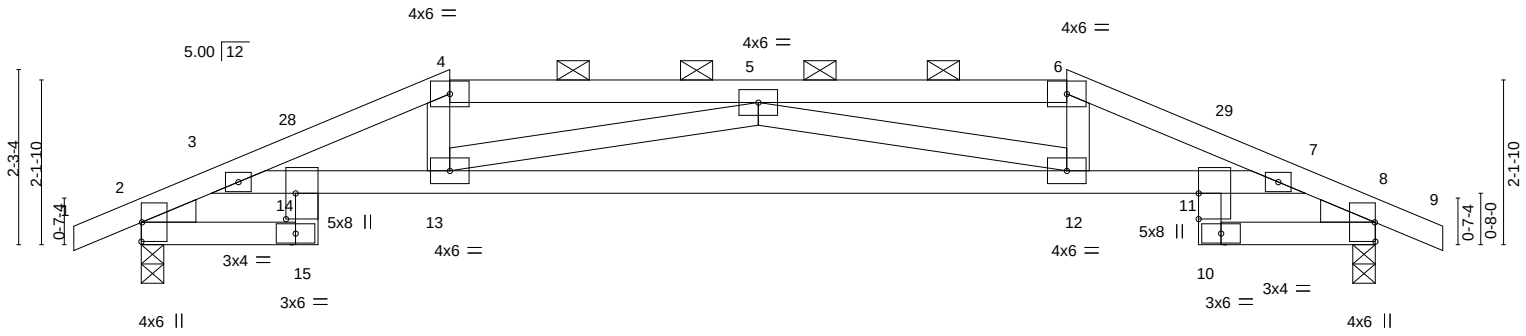
| -0-10-8 | 2-3-8 | 4-0-0 | 8-0-0 | 12-0-0 | 13-8-8 | 16-0-0 | 16-10-8 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 2-3-8 | 1-8-8 | 4-0-0 | 4-0-0 | 1-8-8 | 2-3-8 | 0-10-8 |

Scale = 1:29.9




| 2-3-8 | 4-0-0 | 12-0-0 | 13-8-8 | 16-0-0 |
|---|---|---|---|---|
| 2-3-8 | 1-8-8 | 8-0-0 | 1-8-8 | 2-3-8 |

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

| 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 | 0.27 | Vert(LL) | -0.13 | 12-13 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.85 | Vert(CT) | -0.30 | 12-13 | >642 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.24 | Horz(CT) | 0.11 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 57 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-1-3 max.): 4-6.
BOT CHORD Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 11-12

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-30(LC 13)
Max Uplift 2=-114(LC 12), 8=-114(LC 13)
Max Grav 2=781(LC 1), 8=781(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-17=-783/175, 3-4=-2021/323, 4-5=-1831/317, 5-6=-1831/315, 6-7=-2021/320, 7-8=-783/174
BOT CHORD 2-15=-98/519, 3-14=-163/1365, 13-14=-241/1884, 12-13=-421/2401, 11-12=-239/1884, 7-11=-160/1365, 8-10=-100/519
WEBS 4-13=-24/465, 6-12=-24/465, 5-13=-692/198, 5-12=-692/198

**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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-0-0, Exterior(2R) 4-0-0 to 8-0-0, Interior(1) 8-0-0 to 12-0-0, Exterior(2R) 12-0-0 to 16-0-0, Interior(1) 16-0-0 to 16-10-8 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) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=114, 8=114.
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.


July 30,2021



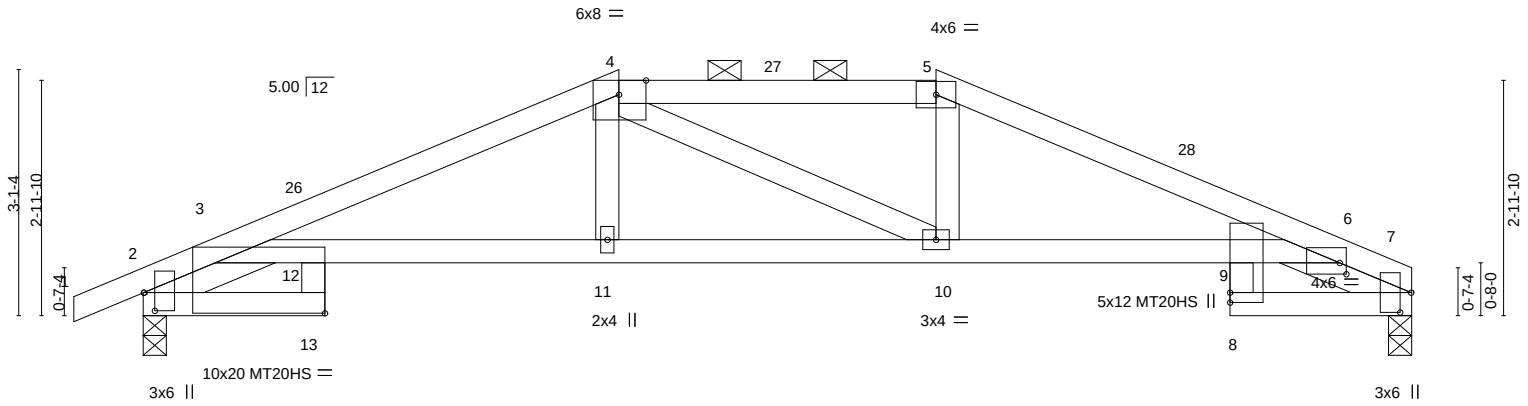
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | D5 | Hip | 1 | 1 | I47222754 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:31 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-rbBwtccF0NLmfA48lO0tATXHVeRMhc7EXn5XAkytDuI

-0-10-8 | 2-3-8 | 6-0-0 | 10-0-0 | 13-8-8 | 16-0-0
0-10-8 | 2-3-8 | 3-8-8 | 4-0-0 | 3-8-8 | 2-3-8

Scale = 1:29.1




2-3-8 | 6-0-0 | 10-0-0 | 13-8-8 | 16-0-0
2-3-8 | 3-8-8 | 4-0-0 | 3-8-8 | 2-3-8

Plate Offsets (X,Y)-- [2:0-2-12,0-1-10], [4:0-4-2,Edge], [6:0-1-0,0-1-11], [7:0-3-0,0-1-10], [13:Edge,0-3-2]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.45 | Vert(LL) | -0.12 | 9-10 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.85 | Vert(CT) | -0.22 | 9-10 | >840 | 180 | MT20HS | 148/108 |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.12 | 7 | 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 *Except*
3-6: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-8-2, Right 2x4 SPF No.2 1-8-2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-10-14 max.): 4-5.
BOT CHORD Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 9-10

**REACTIONS.** (size) 7=0-3-8, 2=0-3-8
Max Horz 2=51(LC 16)
Max Uplift 7=-93(LC 13), 2=-113(LC 12)
Max Grav 7=705(LC 1), 2=781(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-19=-736/186, 3-4=-1491/340, 4-5=-1356/340, 5-6=-1500/329, 6-7=-770/189
BOT CHORD 2-13=-130/487, 3-12=-132/873, 11-12=-263/1360, 10-11=-263/1347, 9-10=-244/1370, 6-9=-116/849, 7-8=-128/520

**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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0, Exterior(2E) 6-0-0 to 10-0-0, Exterior(2R) 10-0-0 to 14-4-11, Interior(1) 14-4-11 to 15-10-4 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) 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 100 lb uplift at joint(s) 7 except (jt=lb) 2=113.
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.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | D6 | Common | 2 | 1 | I47222755 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:31 2021 Page 1

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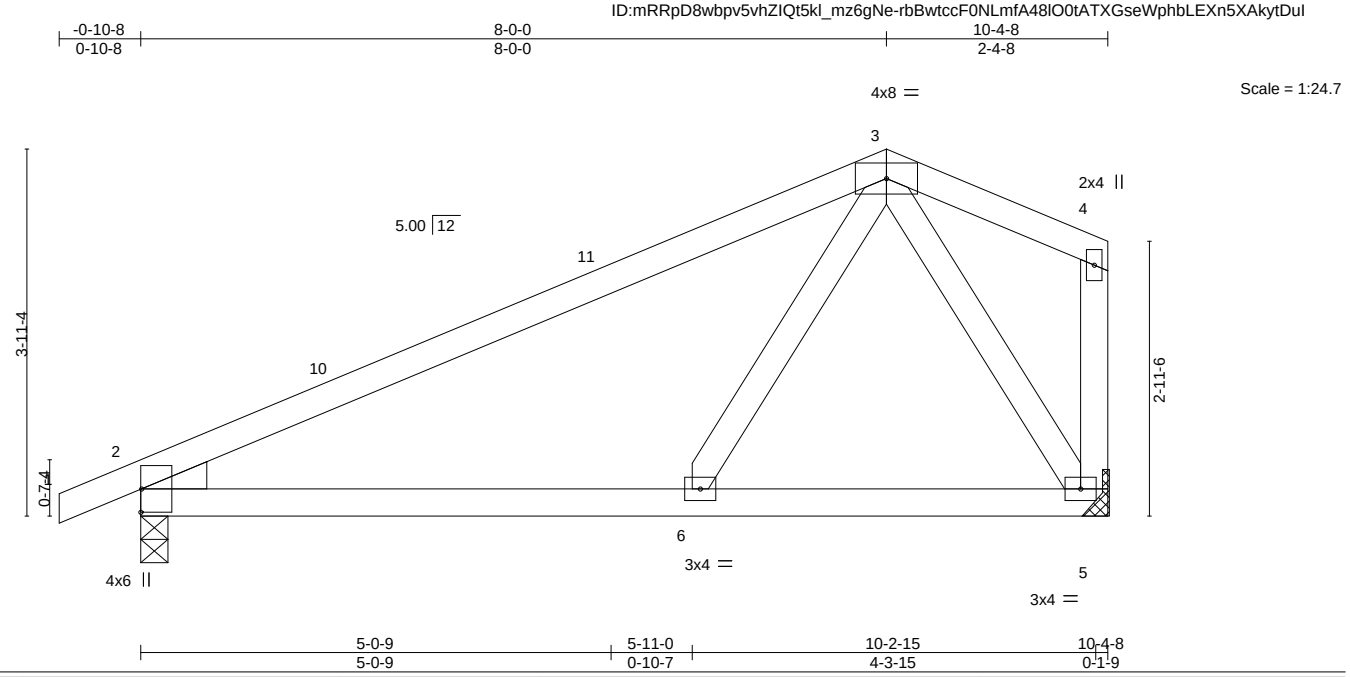


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.55 | Vert(LL) | -0.07 | 6-9 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.56 | Vert(CT) | -0.11 | 6-9 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.18 | Horz(CT) | 0.02 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-AS | | | | | | | Weight: 39 lb | FT = 20% |

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

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

**REACTIONS.** (size) 2=0-3-8, 5=Mechanical
Max Horz 2=107(LC 11)
Max Uplift 2=-86(LC 12), 5=-62(LC 12)
Max Grav 2=524(LC 1), 5=458(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-524/147
BOT CHORD 2-6=-187/395, 5-6=-179/284
WEBS 3-5=-563/314, 3-6=-16/283

**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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2E) 8-0-0 to 10-2-12 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) 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) 2, 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | DG1 | Common Supported Gable | 1 | 1 | I47222756 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:32 2021 Page 1
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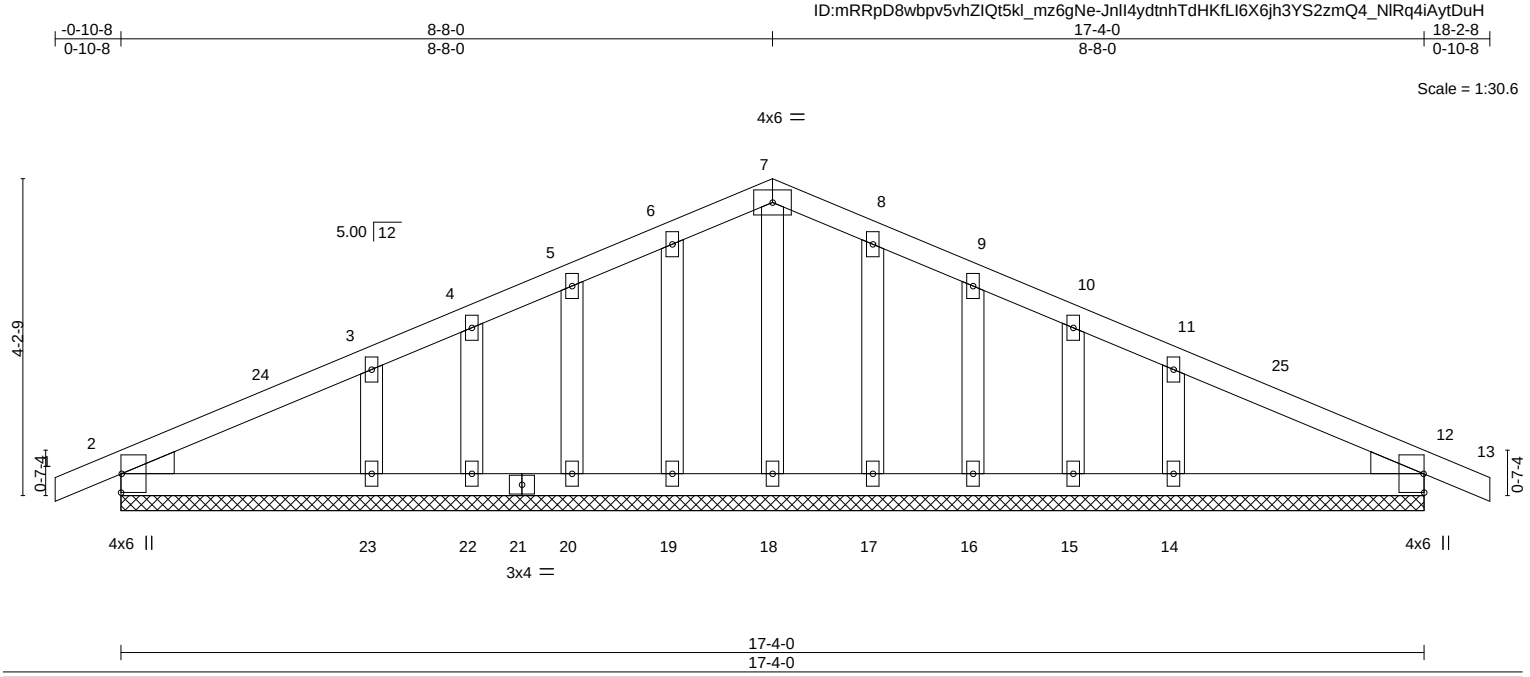


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.12 | Vert(LL) | 0.00 | 13 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | 0.01 | 13 | n/r | 120 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 12 | 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
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2

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

**REACTIONS.** All bearings 17-4-0.
(lb) - Max Horz 2=63(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 19, 20, 22, 23, 17, 16, 15, 14, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 18, 19, 20, 22, 17, 16, 15, 12 except 23=293(LC 25), 14=293(LC 26)

**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 Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 8-8-0, Corner(3R) 8-8-0 to 11-8-0, Exterior(2N) 11-8-0 to 18-2-8 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 19, 20, 22, 23, 17, 16, 15, 14, 12.
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.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | DG2 | Common Supported Gable | 1 | 1 | I47222757 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:33 2021 Page 1

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-0-10-8 6-1-4 12-2-8 13-1-0

0-10-8 6-1-4 6-1-4 0-10-8

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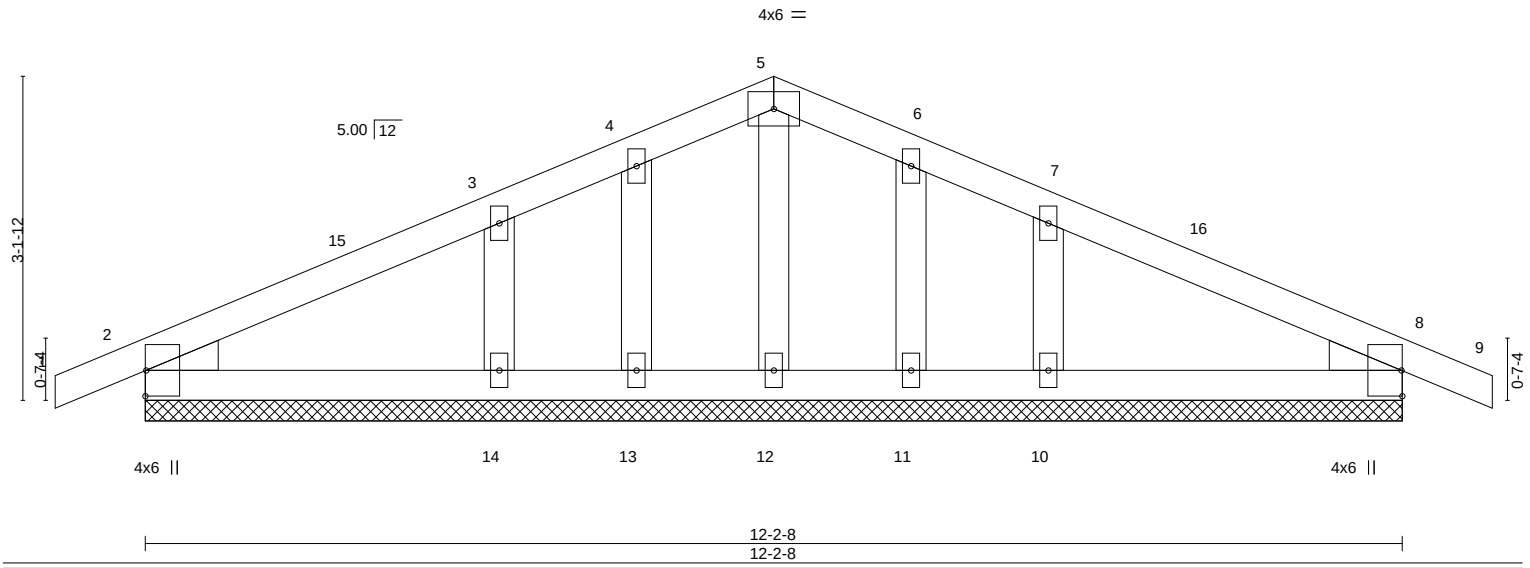


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.12 | Vert(LL) | 0.00 | 9 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | 0.01 | 9 | n/r | 120 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 44 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** All bearings 12-2-8.

(lb) - Max Horz 2=-46(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 11 except 14=304(LC 25), 10=304(LC 26)

**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 Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 6-1-4, Corner(3R) 6-1-4 to 9-1-4, Exterior(2N) 9-1-4 to 13-1-0 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | E1 | Roof Special | 1 | 1 | I47222758 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:34 2021 Page 1
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1-0-0 2-10-8 8-3-8 11-9-0 14-5-0 16-10-8 17-9-0
1-0-0 1-10-8 5-5-0 3-5-8 2-8-0 2-5-8 0-10-8

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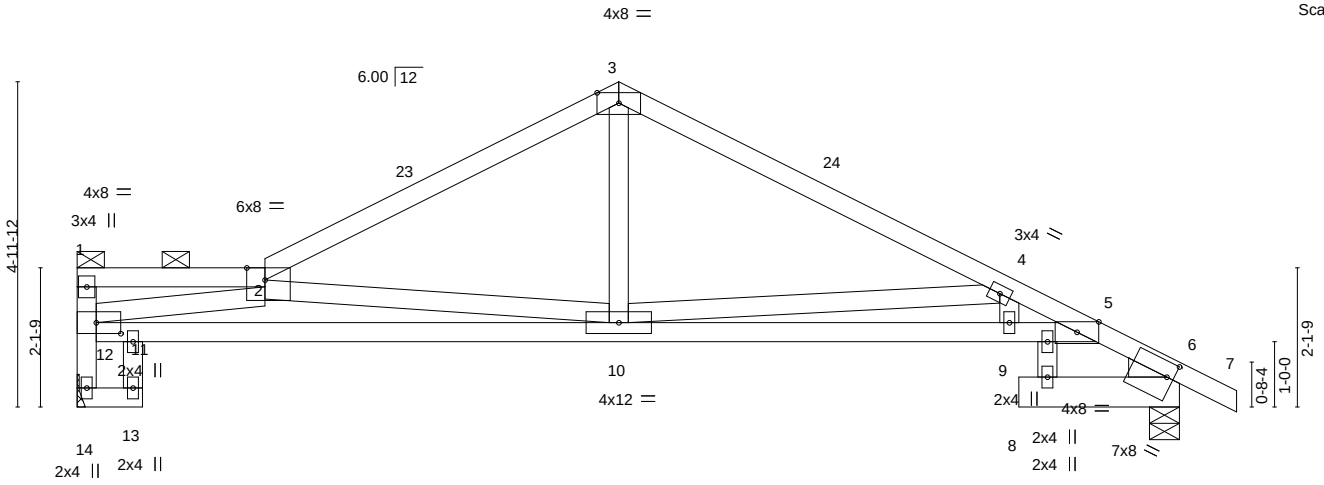


1-0-0 2-10-8 8-3-8 14-5-0 14-8-8 16-10-8
1-0-0 1-10-8 5-5-0 6-1-8 0-3-8 2-2-0

Plate Offsets (X,Y)-- [2:0-3-6,Edge], [5:0-4-0,0-1-15], [6:0-1-4,0-2-12], [12:0-4-8,0-2-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.85 | Vert(LL) | -0.21 | 8 | >952 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.96 | Vert(CT) | -0.40 | 8 | >503 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.93 | Horz(CT) | 0.20 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 73 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2 *Except* 3-7: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 6-8: 2x6 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied. Except: 2-2-0 oc bracing: 5-10

**REACTIONS.** (size) 14=Mechanical, 6=0-5-8
Max Horz 14=-103(LC 10)
Max Uplift 14=-94(LC 12), 6=-102(LC 13)
Max Grav 14=754(LC 1), 6=837(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-14=-773/164, 1-2=-345/0, 2-3=-1117/241, 3-4=-1119/251, 4-5=-2493/477, 5-6=-299/110
BOT CHORD 11-12=-345/1862, 10-11=-372/1879, 9-10=-441/2404, 5-9=-441/2404
WEBS 2-10=-947/300, 3-10=-31/513, 4-9=0/356, 2-12=-1731/553, 4-10=-1469/376

**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 2-10-8, Interior(1) 2-10-8 to 8-3-8, Exterior(2R) 8-3-8 to 11-3-8, Interior(1) 11-3-8 to 17-9-0 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) 14 except (jt=lb) 6=102.
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.


July 30,2021




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | E2 | Common | 1 | 1 | I47222759 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:35 2021 Page 1
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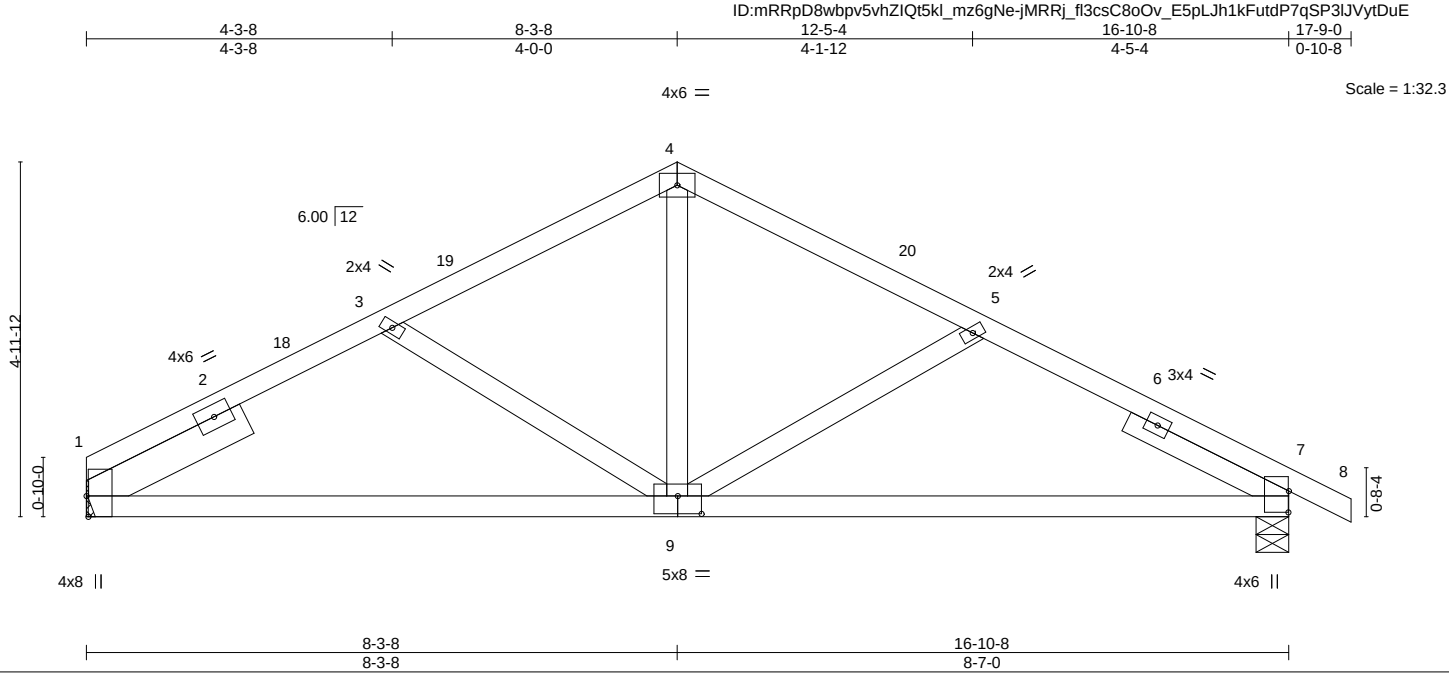


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [7:0-3-9,0-0-1], [9:0-4-0,0-3-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.18 | Vert(LL) | -0.07 | 9-16 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.49 | Vert(CT) | -0.15 | 9-16 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.13 | Horz(CT) | 0.02 | 7 | 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
SLIDER Left 2x6 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

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

**REACTIONS.** (size) 1=Mechanical, 7=0-5-8
Max Horz 1=-85(LC 13)
Max Uplift 1=-92(LC 12), 7=-112(LC 13)
Max Grav 1=758(LC 1), 7=822(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1052/282, 3-4=-868/241, 4-5=-874/237, 5-7=-1035/288
BOT CHORD 1-9=-164/911, 7-9=-185/959
WEBS 3-9=-262/134, 4-9=-69/429, 5-9=-305/148

**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 8-3-8, Exterior(2R) 8-3-8 to 11-3-8, Interior(1) 11-3-8 to 17-9-0 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) 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) 1 except (jt=lb) 7=112.
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.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | EG | Common Supported Gable | 1 | 1 | I47222760 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:36 2021 Page 1
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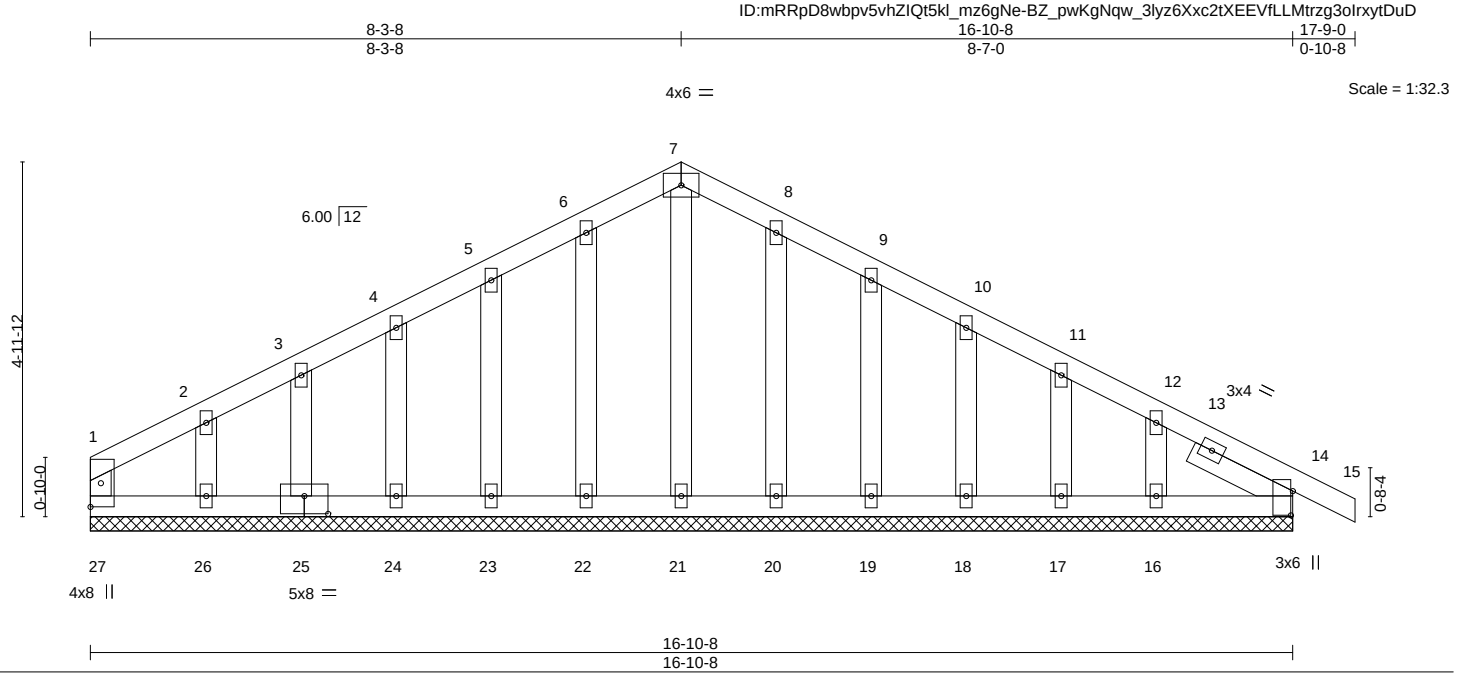


Plate Offsets (X,Y)-- [14:0-4-1,0-0-5], [25:0-4-0,0-3-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.05 | Vert(LL) | -0.00 | 14 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 14 | n/r | 120 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | 0.00 | 14 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | 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 |
| SLIDER | Right 2x4 SPF No.2 1-6-10 |

**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 16-10-8.
(lb) - Max Horz 27=-78(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 27, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16, 14
Max Grav All reactions 250 lb or less at joint(s) 27, 21, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16, 14

**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 Corner(3E) 0-1-12 to 2-11-8, Exterior(2N) 2-11-8 to 8-3-8, Corner(3R) 8-3-8 to 11-3-8, Exterior(2N) 11-3-8 to 17-9-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 27, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16, 14.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 14.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | J1 | Jack-Open | 1 | 1 | I47222761 |
| | | | | | Job Reference (optional) |

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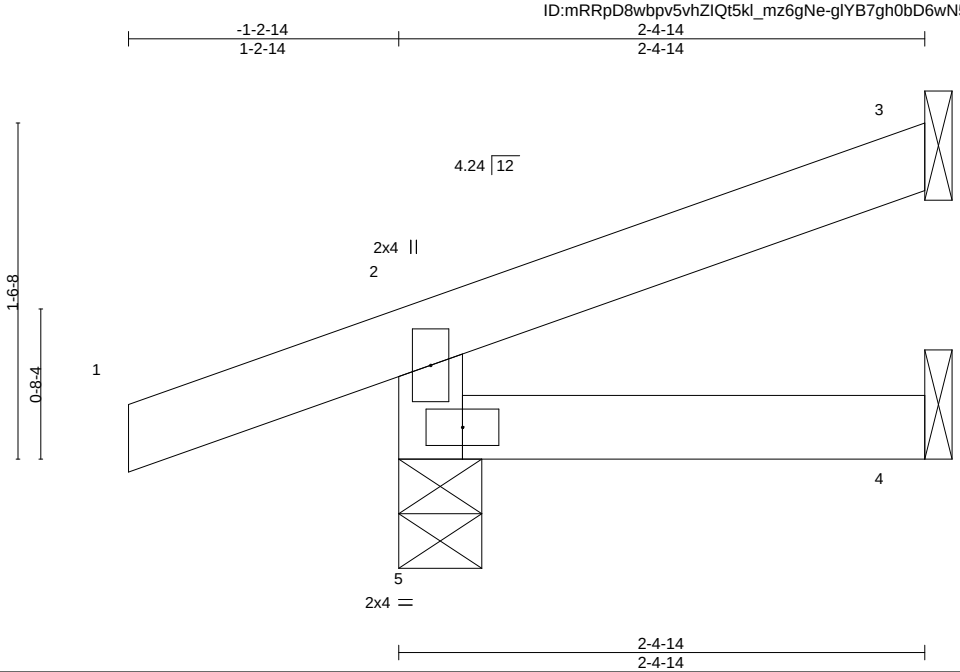


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.13 | Vert(LL) | -0.00 | 4-5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 4-5 | >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-MR | | | | | | | Weight: 7 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 2-4-14 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=46(LC 8)
Max Uplift 5=-73(LC 8), 3=-26(LC 12)
Max Grav 5=226(LC 1), 3=53(LC 1), 4=39(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 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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | J2 | Jack-Open | 1 | 1 | I47222762 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:38 2021 Page 1

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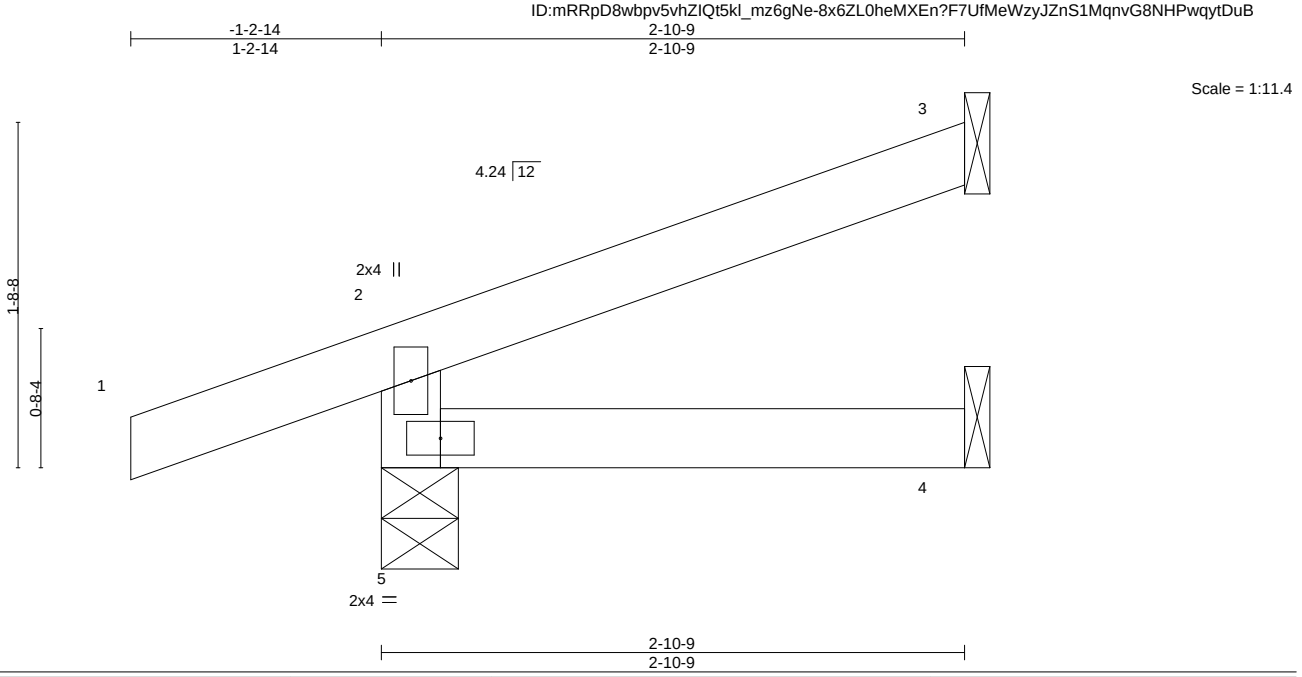


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.13 | Vert(LL) | -0.00 | 4-5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | -0.00 | 4-5 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | 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 2-10-9 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=52(LC 8)
Max Uplift 5=-73(LC 8), 3=-33(LC 12)
Max Grav 5=242(LC 1), 3=72(LC 1), 4=48(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 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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


July 30,2021




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | JD1 | Jack-Open | 2 | 1 | I47222763 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:38 2021 Page 1
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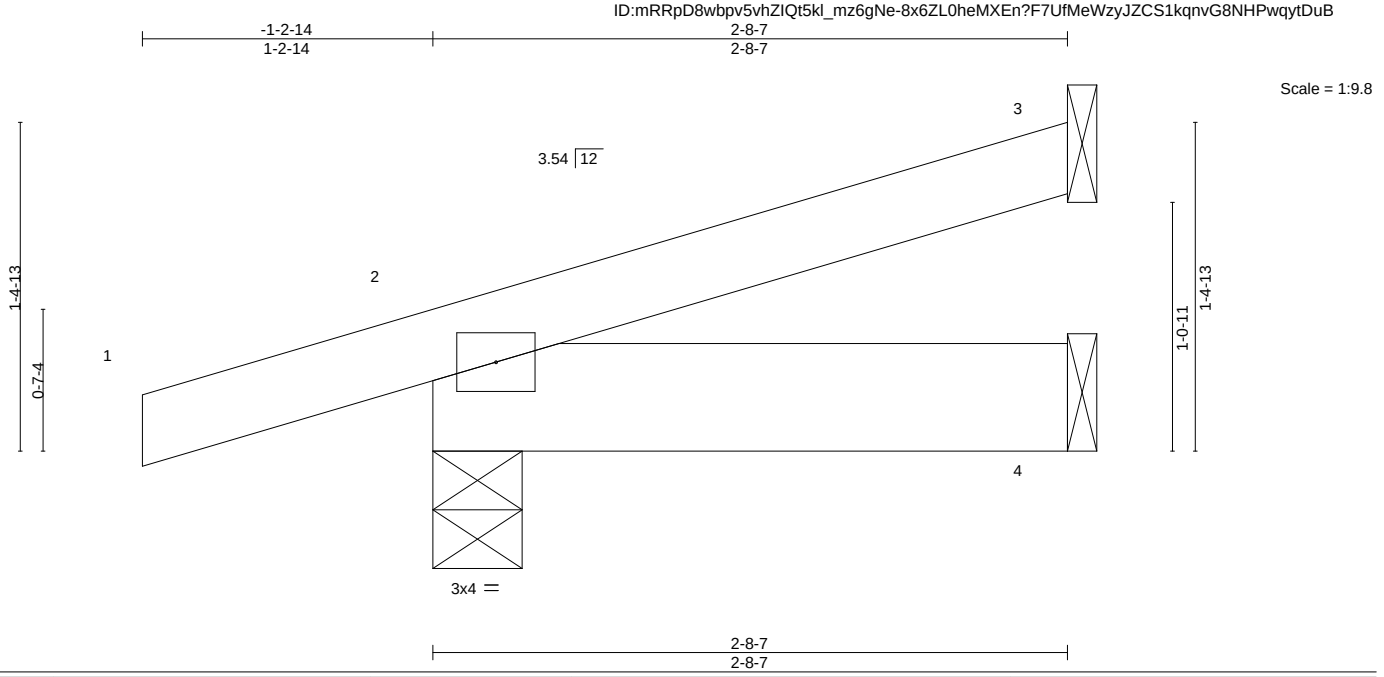


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.10 | Vert(LL) | -0.00 | 7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 7 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 10 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2

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

**REACTIONS.** (size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=46(LC 8)
Max Uplift 3=-24(LC 12), 2=-71(LC 8)
Max Grav 3=62(LC 1), 2=226(LC 1), 4=52(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 Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | JD2 | Jack-Open | 7 | 1 | I47222764 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:39 2021 Page 1

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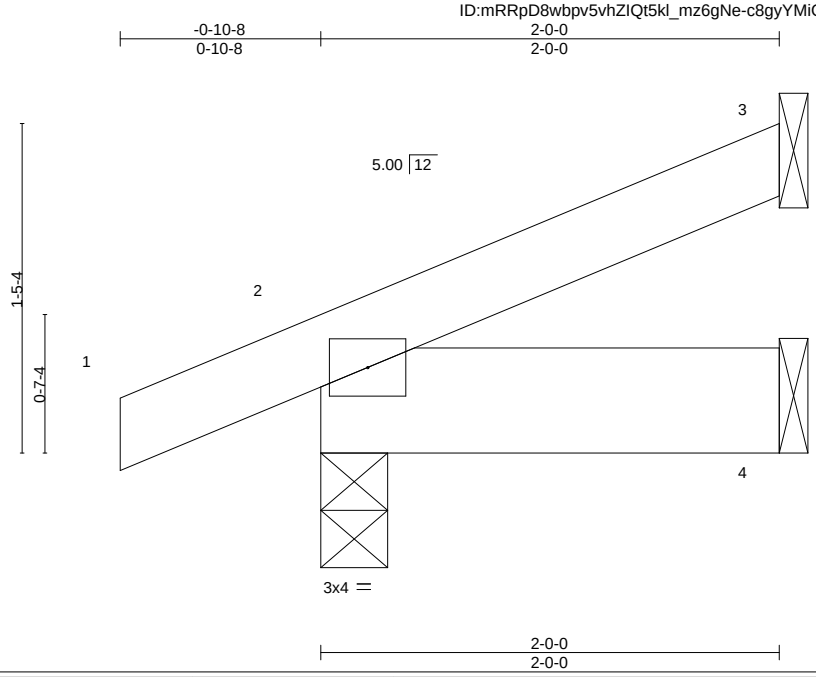


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.05 | Vert(LL) | -0.00 | 7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | -0.00 | 7 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 7 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-0-0 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 12)
Max Uplift 3=-21(LC 12), 2=-27(LC 12), 4=-1(LC 12)
Max Grav 3=47(LC 1), 2=164(LC 1), 4=40(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) interior zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | L1 | GABLE | 1 | 1 | I47222765 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:40 2021 Page 1
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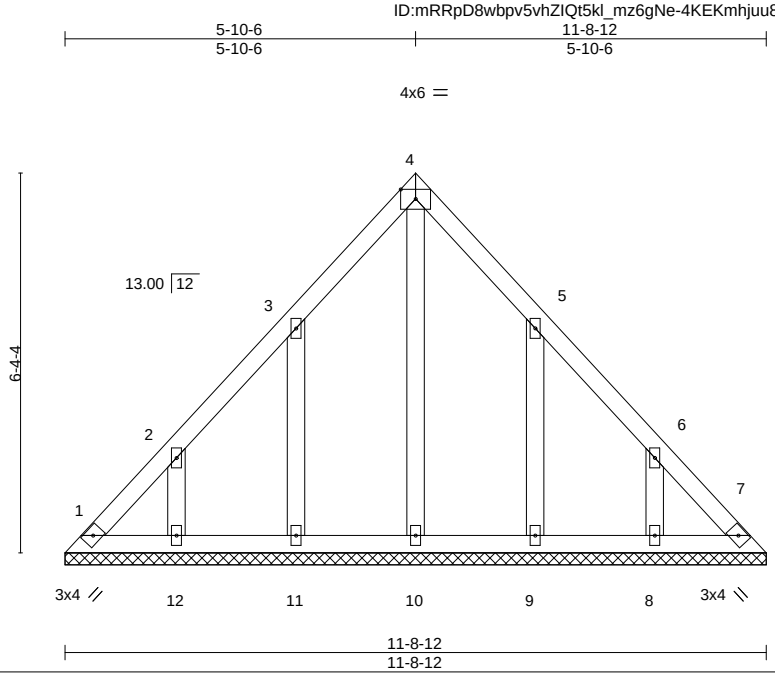


Plate Offsets (X,Y)-- [4:Edge,0-1-15], [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.05 | 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 | 0.07 | Horz(CT) | 0.00 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 50 lb | FT = 20% |

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

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

**REACTIONS.** All bearings 11-8-12.
(lb) - Max Horz 1=-144(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-125(LC 12), 12=-116(LC 12), 9=-124(LC 13), 8=-116(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 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 Corner(3E) 0-4-0 to 3-4-0, Exterior(2N) 3-4-0 to 5-10-6, Corner(3R) 5-10-6 to 8-10-6, Exterior(2N) 8-10-6 to 11-4-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 except (jt=lb) 11=125, 12=116, 9=124, 8=116.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | M1 | MONOPITCH | 5 | 1 | I47222766 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:41 2021 Page 1
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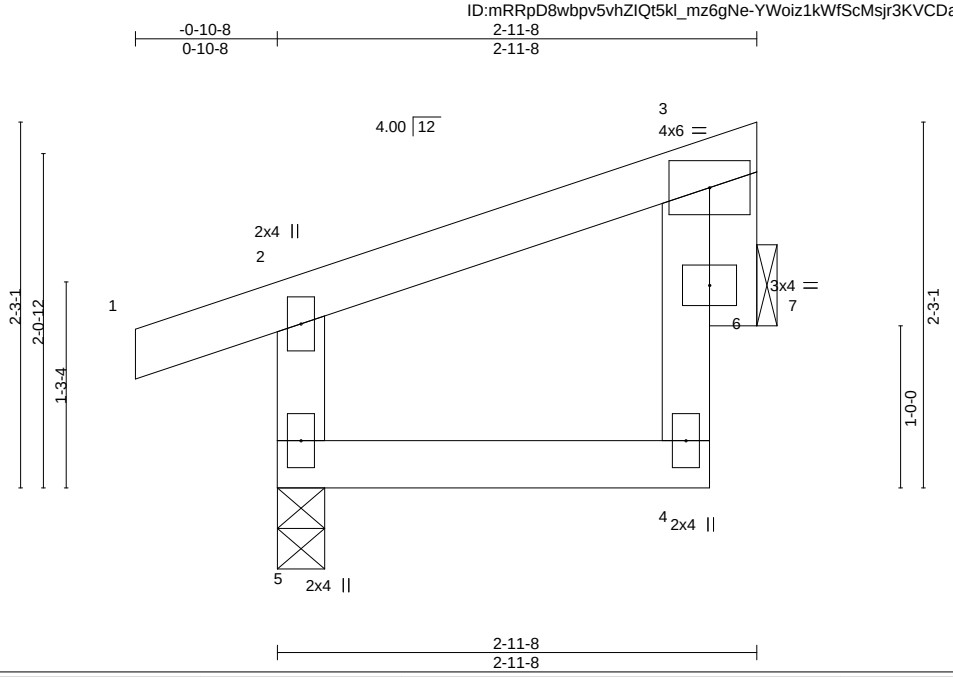


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | -0.00 | 5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | -0.00 | 4-5 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | -0.00 | 7 | 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 |
| OTHERS | 2x4 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-11-8 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (size) 5=0-3-8, 7=Mechanical
Max Horz 5=59(LC 9)
Max Uplift 5=-52(LC 8), 7=-26(LC 12)
Max Grav 5=206(LC 1), 7=79(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 and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-6-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | M3 | MONOPITCH | 8 | 1 | I47222767 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:41 2021 Page 1

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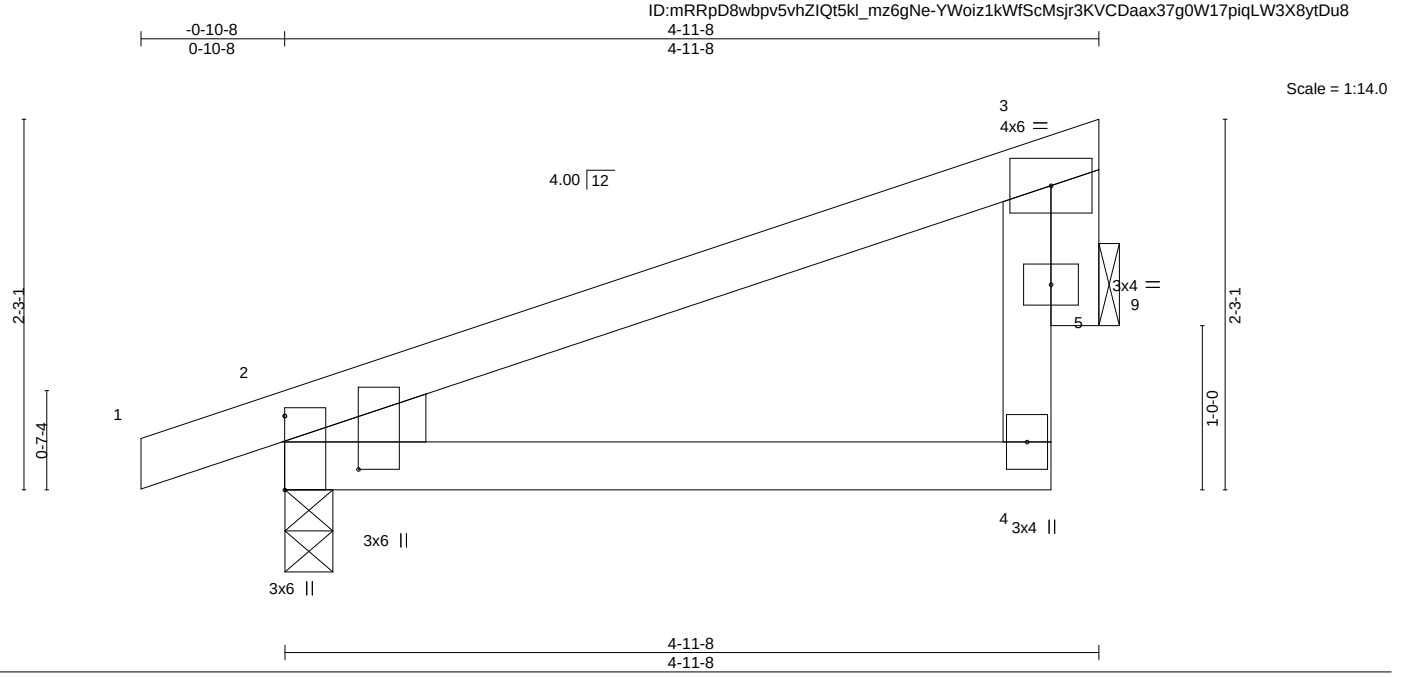


Plate Offsets (X,Y)-- [2:0-3-14,0-5-6]

| 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 | 0.18 | Vert(LL) | -0.01 | 4-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.15 | Vert(CT) | -0.02 | 4-8 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.12 | Horz(CT) | 0.00 | 2 | 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
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.** (size) 2=0-3-8, 9=Mechanical
Max Horz 2=56(LC 9)
Max Uplift 2=-64(LC 8), 9=-43(LC 12)
Max Grav 2=286(LC 1), 9=182(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 and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-6-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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, 9.
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.


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | M4 | MONOPITCH | 2 | 1 | I47222768 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:42 2021 Page 1

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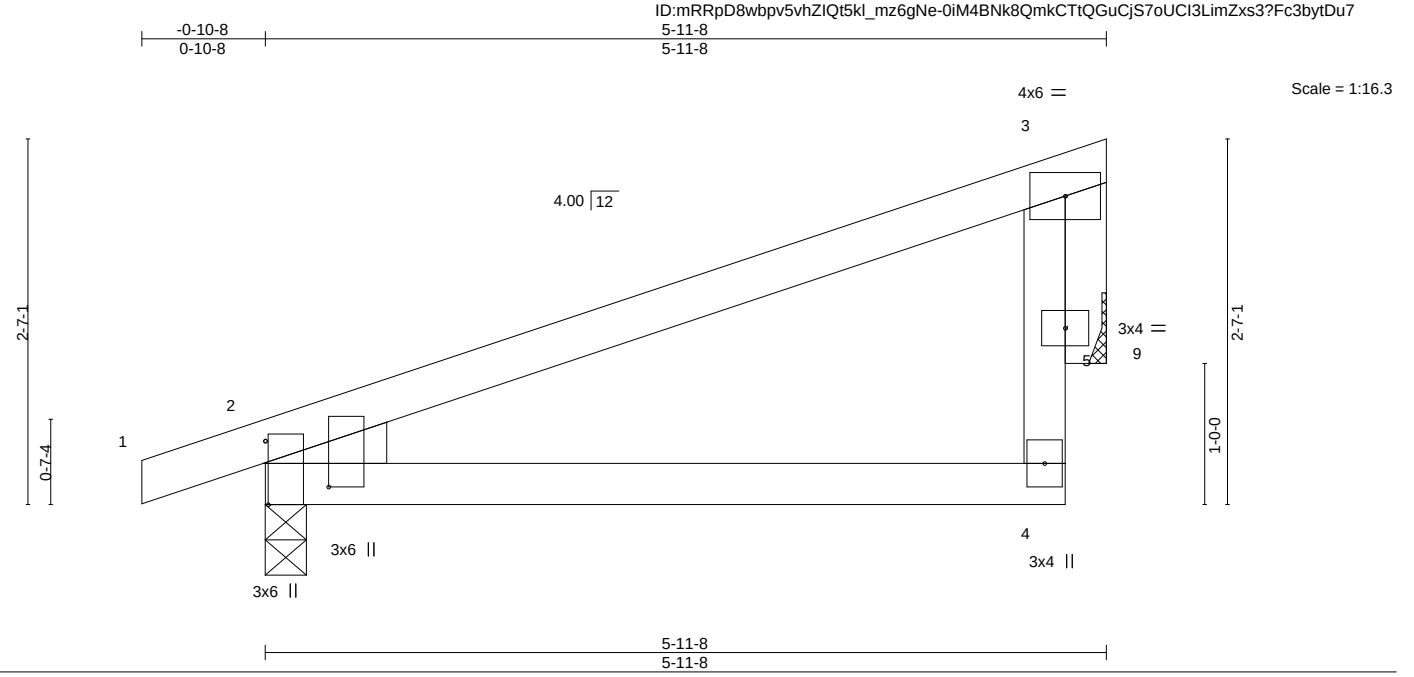


Plate Offsets (X,Y)-- [2:0-5-7,Edge], [2:0-3-14,0-5-6]

| 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 | 4-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.22 | Vert(CT) | -0.04 | 4-8 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.19 | Horz(CT) | 0.01 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 19 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** (size) 2=0-3-8, 9=Mechanical
Max Horz 2=65(LC 8)
Max Uplift 2=-69(LC 8), 9=-54(LC 12)
Max Grav 2=330(LC 1), 9=228(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 and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-6-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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, 9.
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.


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | M5 | MONOPITCH | 6 | 1 | I47222769 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:42 2021 Page 1

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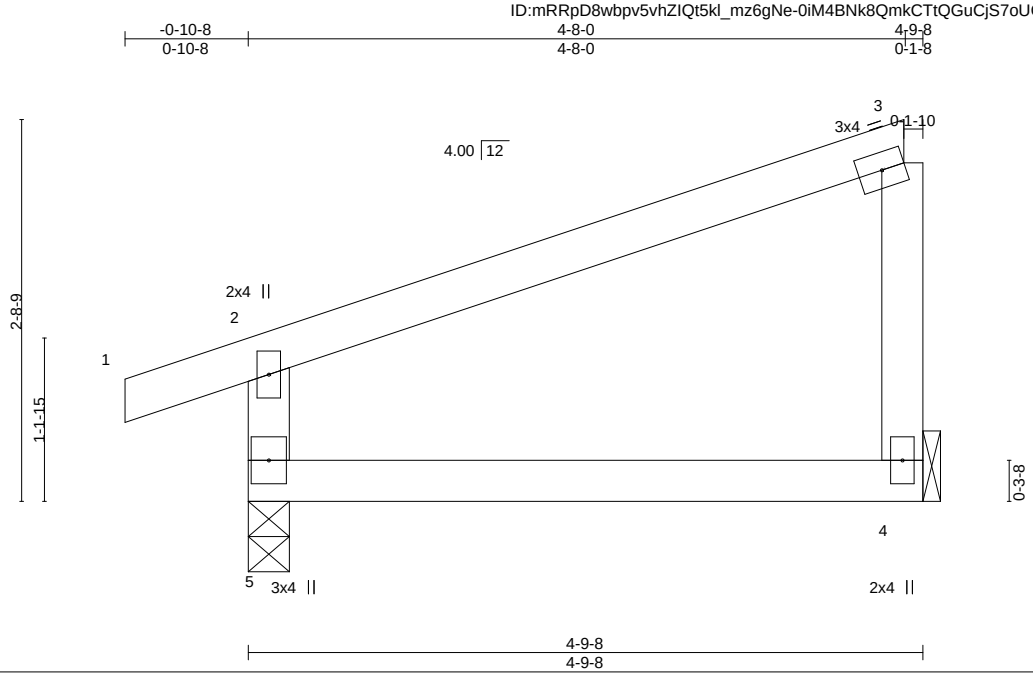


Plate Offsets (X,Y)-- [3:0-0-0,0-0-0]

| LOADING | (psf) | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.28 | Vert(LL) | -0.02 | 4-5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.19 | Vert(CT) | -0.04 | 4-5 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.02 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | 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, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied. |

**REACTIONS.** (size) 5=0-3-8, 4=Mechanical
Max Horz 5=62(LC 9)
Max Uplift 5=-57(LC 8), 4=-54(LC 12)
Max Grav 5=282(LC 1), 4=192(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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-7-5 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
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.
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.


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | M6 | MONOPITCH | 4 | 1 | I47222770 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:43 2021 Page 1

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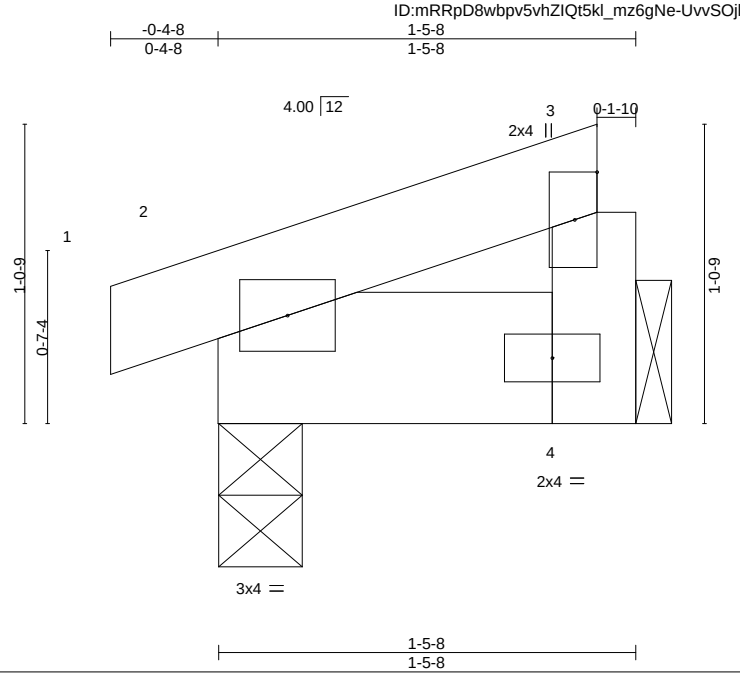


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.01 | Vert(LL) | -0.00 | 7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.01 | 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: 5 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 1-5-8 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (size) 2=0-3-8, 4=Mechanical
Max Horz 2=26(LC 11)
Max Uplift 2=-24(LC 8), 4=-13(LC 12)
Max Grav 2=89(LC 1), 4=55(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 and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | MG1 | GABLE | 1 | 1 | I47222771 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:44 2021 Page 1
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-0-10-8 2-10-0 2-11-8
0-10-8 2-10-0 0-1-8

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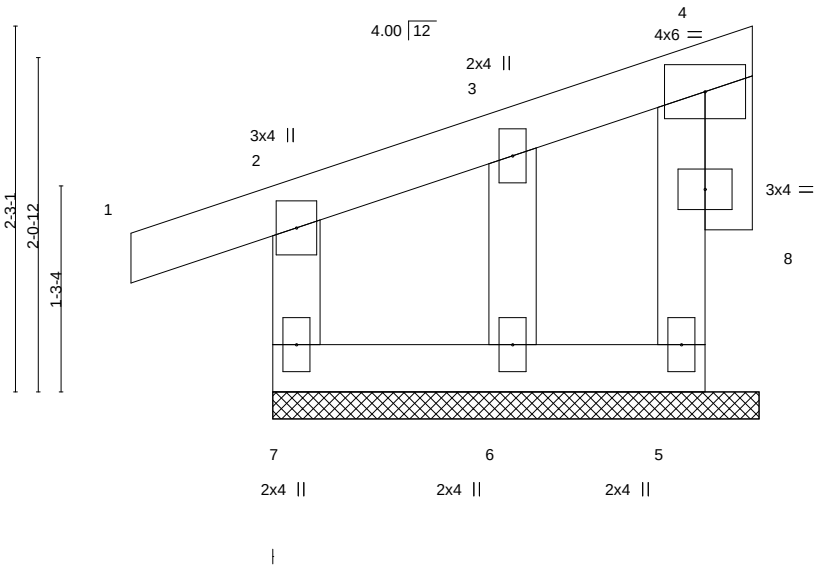


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.11 | Vert(LL) | -0.00 | 1 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | -0.00 | 1 | n/r | 120 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | -0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | Weight: 13 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 2-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 7=3-0-0, 5=3-0-0, 6=3-0-0
Max Horz 7=75(LC 9)
Max Uplift 7=-47(LC 8), 5=-19(LC 9), 6=-34(LC 9)
Max Grav 7=150(LC 1), 5=46(LC 1), 6=99(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 and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 2-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5, 6.
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.


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | MG2 | MONOPITCH STRUCTURAL | 1 | 1 | I47222772 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:45 2021 Page 1
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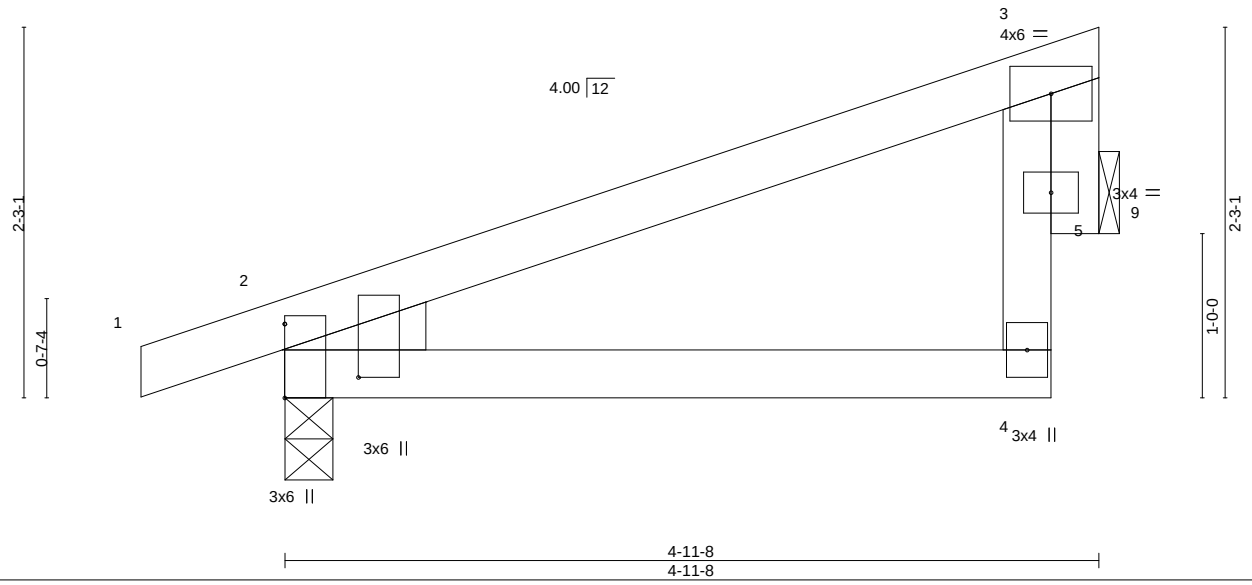


Plate Offsets (X,Y)-- [2:0-3-14,0-5-6]

| 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 | 0.18 | Vert(LL) | -0.01 | 4-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.15 | Vert(CT) | -0.02 | 4-8 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.12 | Horz(CT) | 0.00 | 2 | 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
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

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

**REACTIONS.** (size) 2=0-3-8, 9=Mechanical
Max Horz 2=56(LC 9)
Max Uplift 2=-64(LC 8), 9=-43(LC 12)
Max Grav 2=286(LC 1), 9=182(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 and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-6-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable studs spaced at 1-4-0 oc.
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) 2, 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.


July 30,2021



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | MG3 | MONOPITCH SUPPORTED | 1 | 1 | I47222773 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:46 2021 Page 1

ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-vUbb0lofU_EeyUk172nOHefwVhlniPyRzdDqCMytDu3

-0-10-8 4-10-0 4-11-8

0-10-8 4-10-0 0-1-8

Scale = 1:14.0

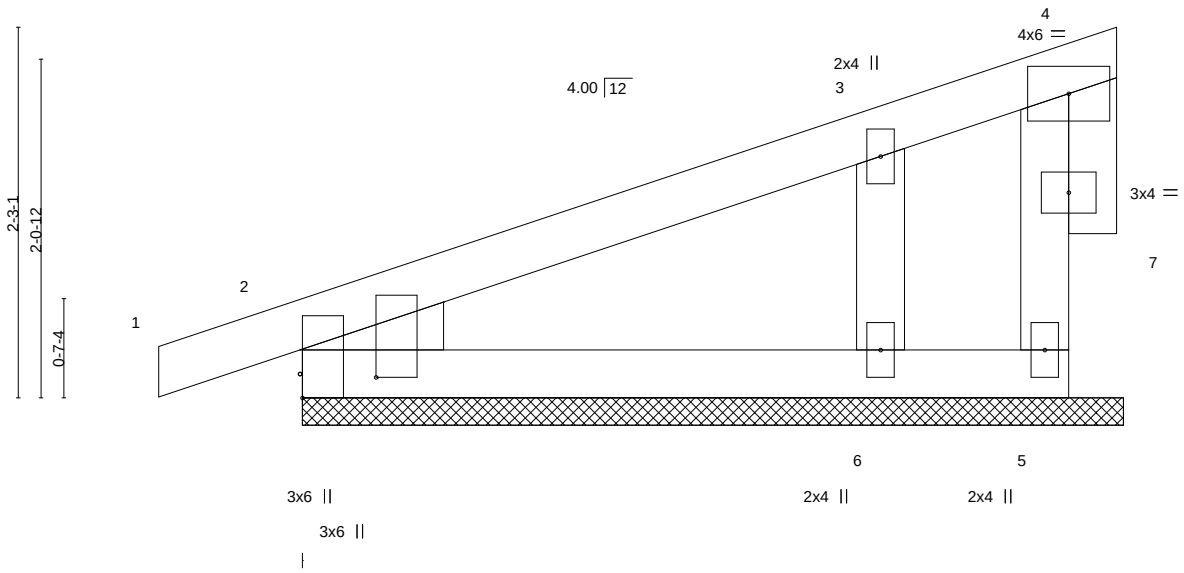


Plate Offsets (X,Y)-- [2:Edge,0-0-3], [2:0-0-4,0-5-9]

| 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 | 0.14 | Vert(LL) | -0.00 | 1 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | 0.00 | 1 | n/r | 120 | | |
| 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: 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 |
| WEDGE | |
| Left: 2x4 SPF No.2 | |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 4-11-8 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (size) 5=5-0-0, 6=5-0-0, 2=5-0-0
Max Horz 2=74(LC 9)
Max Uplift 5=-41(LC 22), 6=-76(LC 12), 2=-49(LC 8)
Max Grav 5=16(LC 12), 6=319(LC 1), 2=199(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-242/344

**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 Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 4-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 1-4-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6, 2.
7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


July 30,2021



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Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | SUMMIT/HAWTHORN RIDGE #207/MO |
|---|---|---|---|---|---|
| 2887880 | MG4 | GABLE | 1 | 1 | I47222774 |

Job Reference (optional)

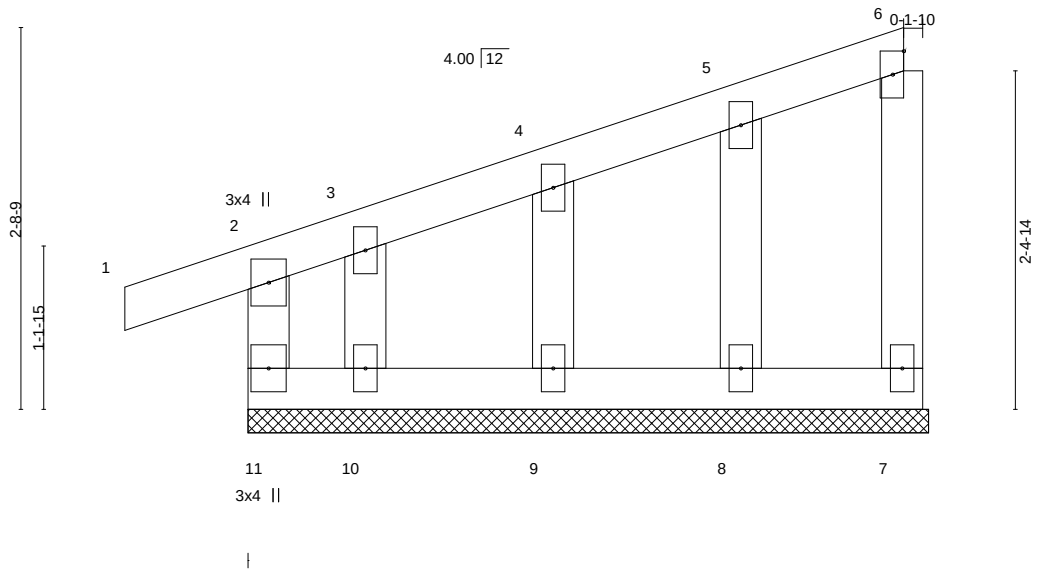
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 29 10:57:46 2021 Page 1

ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-vUbb0lofU_EeyUk172nOHefwchlNiPLRzdDqCMytDu3

-0-10-8 4-9-8

0-10-8 4-9-8

Scale = 1:16.4




| 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 | 0.13 | Vert(LL) | 0.00 | 1 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.11 | Vert(CT) | -0.00 | 1 | n/r | 120 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | 0.00 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | Weight: 20 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 4-9-8 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** All bearings 4-10-0.

(lb) - Max Horz 11=97(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 11, 7, 8, 9 except 10=-106(LC 9)

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

**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 Corner(3E) -0-10-8 to 2-2-0, Exterior(2N) 2-2-0 to 4-7-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 7, 8, 9 except (jt=lb) 10=106.
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.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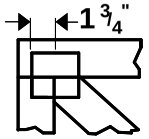
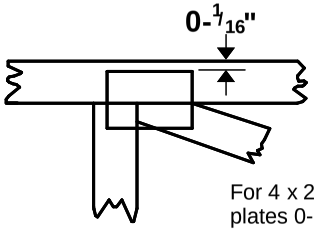
# Symbols

## PLATE LOCATION AND ORIENTATION




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




For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

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

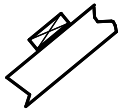
*** Plate location details available in MiTek 20/20 software or upon request.**

## PLATE SIZE

4 x 4

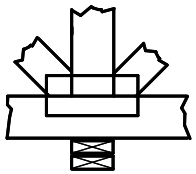
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

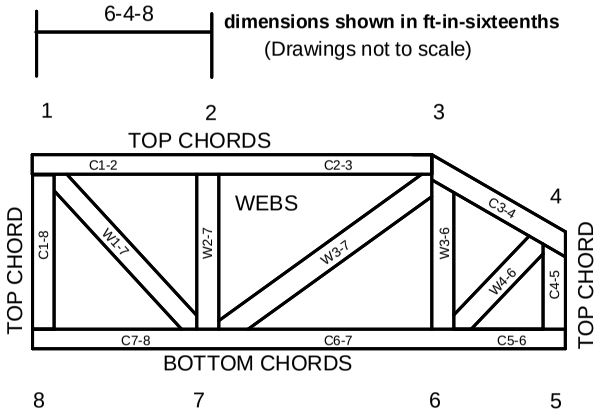


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

**Industry Standards:**

ANSI/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.