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

02/01/2021

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

Re: 210257
Lot 44 W1

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Wheeler - Waverly.

Pages or sheets covered by this seal: I44539496 thru I44539579

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

Missouri COA: Engineering 001193


January 27,2021

Sevier, Scott ,Engineer

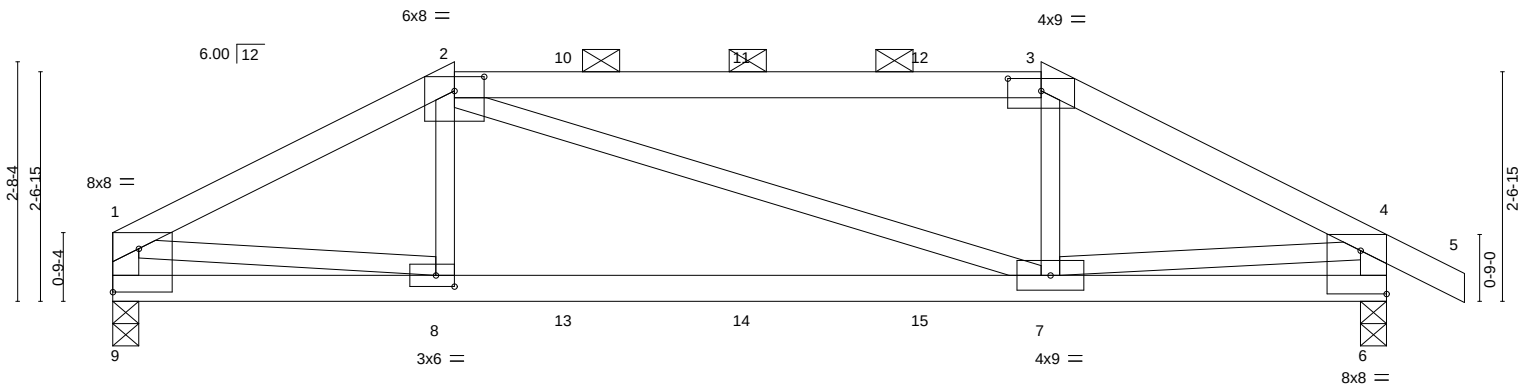
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | A1 | Hip Girder | 1 | 1 | I44539496 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:54:56 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-hfpg_gTesu_NpaKX1mfUEIloZkYDVz4rbx5_7dzrU?z

3-10-0 | 10-5-0 | 14-3-8 | 15-2-0
3-10-0 | 6-7-0 | 3-10-8 | 0-10-8

Scale = 1:25.9




3-10-0 | 10-5-0 | 14-3-8
3-10-0 | 6-7-0 | 3-10-8

Plate Offsets (X,Y)-- [1:Edge,0-5-13], [2:0-4-0,0-1-15], [3:0-4-8,0-1-11], [6:Edge,0-5-13], [8:0-2-8,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.97 | Vert(LL) | -0.08 | 7-8 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.71 | Vert(CT) | -0.20 | 7-8 | >854 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.52 | Horz(CT) | 0.02 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.04 | 7-8 | >999 | 240 | Weight: 50 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2 *Except*
2-3: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-9,4-6: 2x4 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-10-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-9 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 9=0-3-8, 6=0-3-8
Max Horz 9=-53(LC 25)
Max Uplift 9=-219(LC 8), 6=-242(LC 9)
Max Grav 9=1199(LC 1), 6=1295(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1929/347, 2-3=-1674/345, 3-4=-1937/349, 1-9=-1174/221, 4-6=-1270/245
BOT CHORD 7-8=-310/1674
WEBS 2-8=0/301, 3-7=0/313, 1-8=-284/1511, 4-7=-296/1493

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=219, 6=242.
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) 108 lb down and 74 lb up at 3-10-0, 115 lb down and 74 lb up at 5-1-8, 115 lb down and 74 lb up at 7-1-8, and 115 lb down and 74 lb up at 9-1-8, and 108 lb down and 74 lb up at 10-5-0 on top chord, and 260 lb down and 76 lb up at 3-10-0, 32 lb down at 5-1-8, 32 lb down at 7-1-8, and 32 lb down at 9-1-8, and 260 lb down and 76 lb up at 10-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard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Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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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=-90, 2-3=-90, 3-4=-90, 4-5=-90, 6-9=-20
   Concentrated Loads (lb)
   Vert: 2=-53(F) 3=-53(F) 8=-260(F) 7=-260(F) 10=-53(F) 11=-53(F) 12=-53(F) 13=-26(F) 14=-26(F) 15=-26(F)


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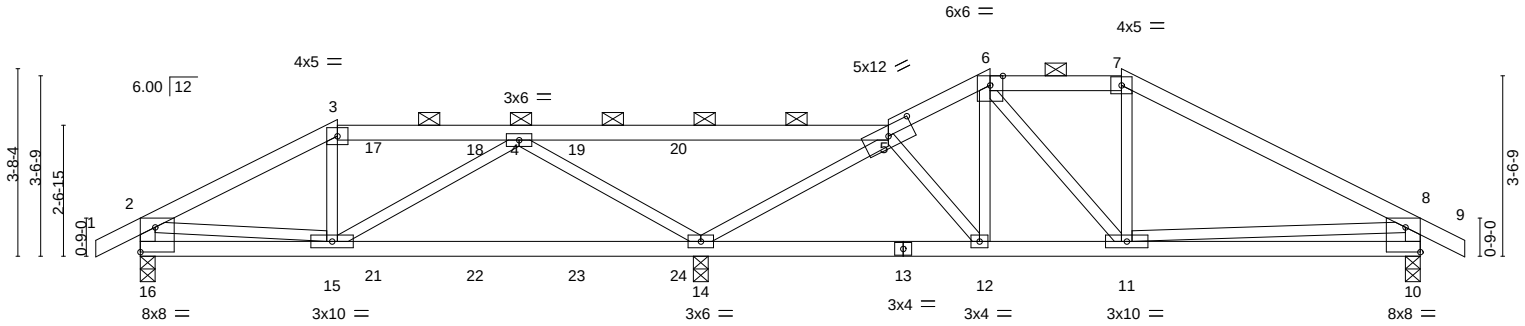
| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | A2 | Roof Special Girder | 1 | 1 | I44539497 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:54:57 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-9rN2B0TGdC6DRkvkbUAjmzr0y8xMELH_paqXf3zrU?y

| -0-10-8 | 3-10-8 | 7-5-6 | 14-8-8 | 16-8-8 | 19-3-8 | 25-2-0 | 26-0-8 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 3-10-8 | 3-6-14 | 7-3-2 | 2-0-0 | 2-7-0 | 5-10-8 | 0-10-8 |

Scale = 1:45.3




| 3-10-8 | 11-0-4 | 14-8-8 | 16-8-8 | 19-3-8 | 25-2-0 |
|---|---|---|---|---|---|
| 3-10-8 | 7-1-12 | 3-8-4 | 2-0-0 | 2-7-0 | 5-10-8 |

Plate Offsets (X,Y)-- [5:0-6-0,0-2-5], [10:Edge,0-5-13], [16:Edge,0-5-13]

| 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 | 0.73 | Vert(LL) | -0.08 | 14-15 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.53 | Vert(CT) | -0.17 | 14-15 | >768 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.84 | Horz(CT) | 0.02 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.02 | 15 | >999 | 240 | Weight: 92 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2 *Except*
3-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-16,8-10: 2x4 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-4-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5, 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 16=0-3-8, 14=0-3-8, 10=0-3-8
Max Horz 16=-62(LC 6)
Max Uplift 16=-191(LC 8), 14=-296(LC 8), 10=-127(LC 30)
Max Grav 16=861(LC 21), 14=1942(LC 1), 10=751(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1115/234, 3-4=-917/235, 4-5=-133/794, 5-6=-628/176, 6-7=-628/165, 7-8=-823/138, 2-16=-845/193, 8-10=-697/160
BOT CHORD 14-15=-248/687, 12-14=-159/468, 11-12=-77/488, 10-11=-147/498
WEBS 4-15=0/363, 4-14=-1735/503, 5-14=-1480/243, 6-11=-54/268, 2-15=-122/694

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) The Fabrication Tolerance at joint 8 = 2%
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=191, 14=296, 10=127.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 115 lb down and 74 lb up at 3-10-8, 115 lb down and 74 lb up at 4-7-0, 115 lb down and 74 lb up at 6-7-0, and 115 lb down and 74 lb up at 8-7-0, and 115 lb down and 74 lb up at 10-7-0 on top chord, and 260 lb down and 76 lb up at 3-10-8, 32 lb down at 4-7-0, 32 lb down at 6-7-0, and 32 lb down at 8-7-0, and 32 lb down at 10-7-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).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**LOAD CASE(S)** Standard

Continued on page 2

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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=-90, 2-3=-90, 3-5=-90, 5-6=-90, 6-7=-90, 7-8=-90, 8-9=-90, 10-16=-20
   Concentrated Loads (lb)
   Vert: 3=-53(F) 15=-260(F) 17=-53(F) 18=-53(F) 19=-53(F) 20=-53(F) 21=-26(F) 22=-26(F) 23=-26(F) 24=-26(F)


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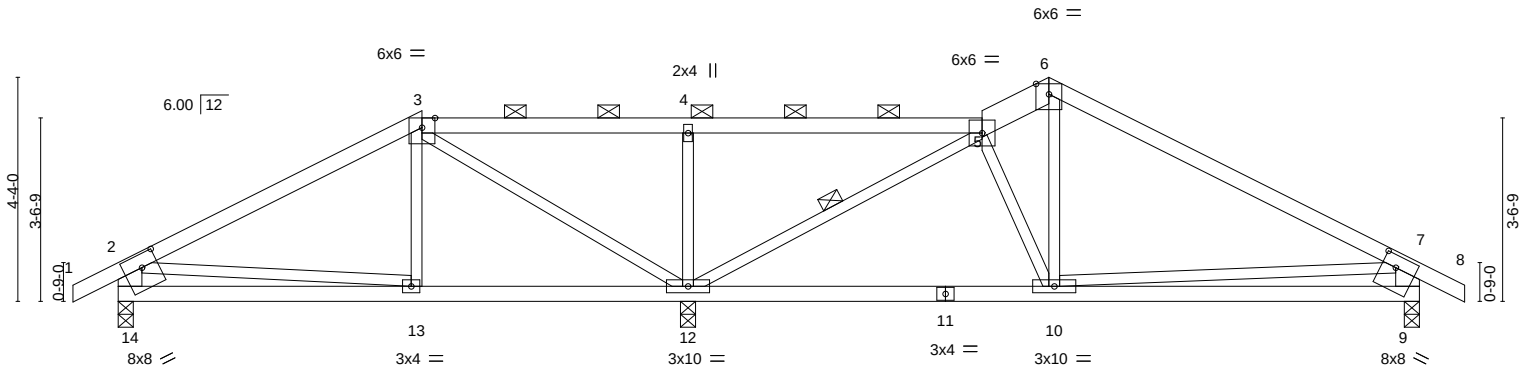
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | A3 | Roof Special | 1 | 1 | I44539498 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:54:58 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-d2xQPMUvOVE42uUw9BhyJAOBbXlbzsR82Ea5CVzrU?x

| 0-10-8 | 5-10-8 | 11-0-4 | 16-8-8 | 18-0-0 | 25-2-0 | 26-0-8 |
|---|---|---|---|---|---|---|
| 0-10-8 | 5-10-8 | 5-1-12 | 5-8-4 | 1-3-8 | 7-2-0 | 0-10-8 |

Scale = 1:44.6




| 5-10-8 | 11-0-4 | 18-0-0 | 25-2-0 |
|---|---|---|---|
| 5-10-8 | 5-1-12 | 6-11-12 | 7-2-0 |

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

| 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 | 0.74 | Vert(LL) | -0.05 | 9-10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.40 | Vert(CT) | -0.10 | 9-10 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.59 | Horz(CT) | 0.02 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.01 | 9-10 | >999 | 240 | Weight: 95 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2 *Except* 5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 2-14,7-9: 2x6 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-0-6 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-12

**REACTIONS.** (size) 14=0-3-8, 12=0-3-8, 9=0-3-8
Max Horz 14=-74(LC 6)
Max Uplift 14=-106(LC 8), 12=-186(LC 8), 9=-115(LC 9)
Max Grav 14=621(LC 1), 12=1487(LC 1), 9=809(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-558/95, 5-6=-702/128, 6-7=-853/100, 2-14=-569/139, 7-9=-749/153
BOT CHORD 13-14=-183/442, 12-13=-52/386, 10-12=-32/663, 9-10=-211/689
WEBS 3-12=-635/94, 4-12=-554/182, 5-12=-930/69, 6-10=-16/303

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=106, 12=186, 9=115.
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.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16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | A4 | HALF HIP GIRDER | 1 | 3 | I44539499 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:00 2021 Page 1
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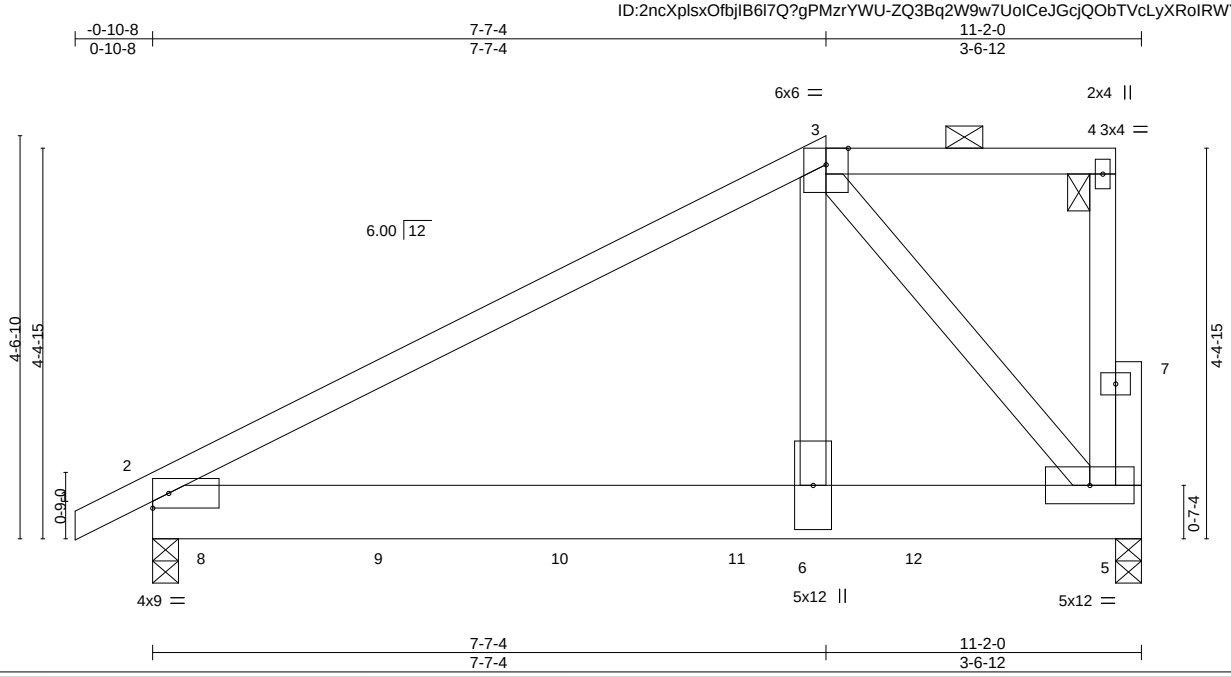


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.84 | Vert(LL) | -0.08 | 2-6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.56 | Vert(CT) | -0.16 | 2-6 | >797 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.50 | Horz(CT) | 0.01 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.04 | 2-6 | >999 | 240 | Weight: 192 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x8 SP DSS |
| WEBS | 2x4 SPF No.2 |
| OTHERS | 2x4 SPF No.2 |

**BRACING-**

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

**REACTIONS.** (size) 5=0-3-8, 2=0-3-8
Max Horz 2=167(LC 28)
Max Uplift 5=-168(LC 5), 2=-166(LC 8)
Max Grav 5=5935(LC 2), 2=5657(LC 2)

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

| | |
|---|---|
| TOP CHORD | 2-3=-4588/131 |
| BOT CHORD | 2-6=-141/3921, 5-6=-139/3697 |
| WEBS | 3-6=-85/6166, 3-5=-5818/213 |

**NOTES-**

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x8 - 3 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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=168, 2=166.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1753 lb down and 22 lb up at 0-8-0, 1741 lb down and 37 lb up at 2-8-0, 1743 lb down and 39 lb up at 4-8-0, 1744 lb down and 41 lb up at 6-8-0, and 1744 lb down and 41 lb up at 8-8-0, and 1752 lb down and 33 lb up at 10-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.


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**LOAD CASE(S)** Standard

Continued on page 2

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

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-90, 3-4=-90, 2-5=-20
   Concentrated Loads (lb)
   Vert: 5=-1699(B) 8=-1681(B) 9=-1674(B) 10=-1691(B) 11=-1691(B) 12=-1691(B)


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| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | A5 | HALF HIP | 1 | 1 | I44539500 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:01 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-1cdZ1OXnhQcfvMDVqJFfxp?fAlKdA7KakColpqzrU?u

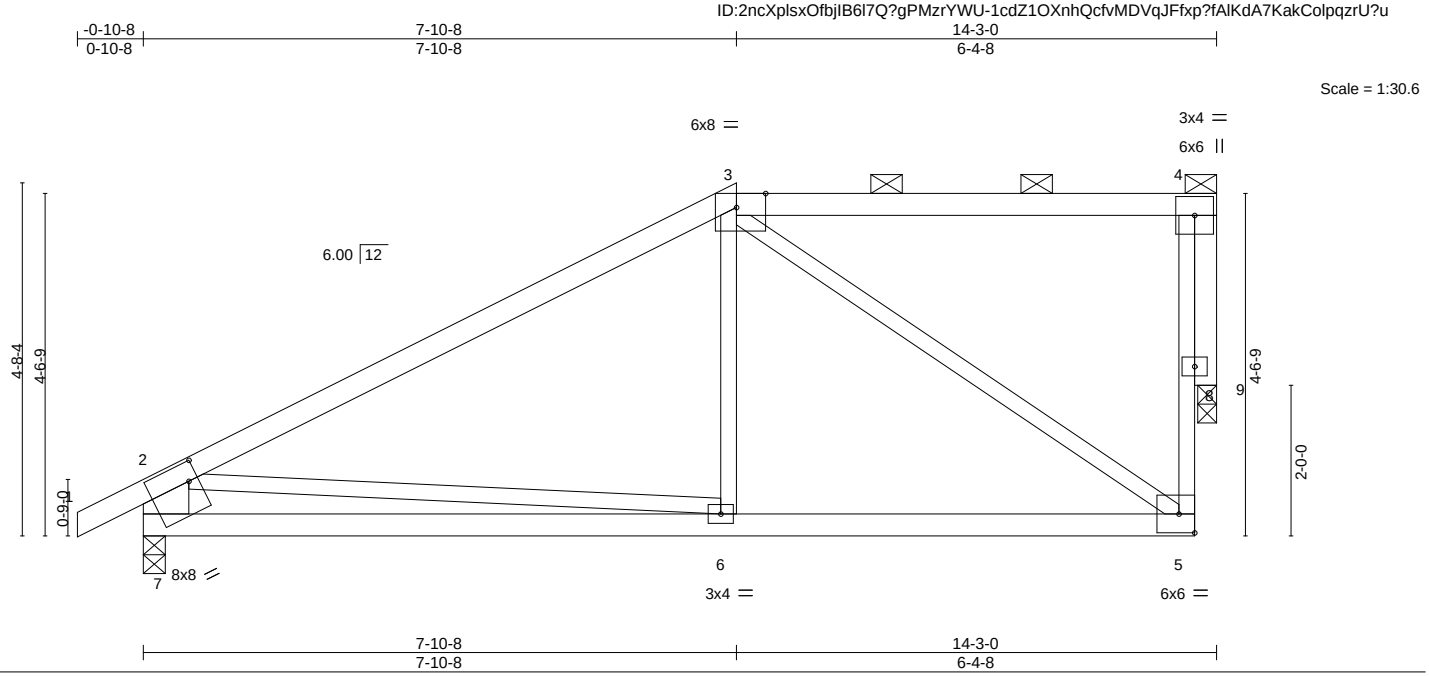


Plate Offsets (X,Y)-- [3:0-4-10,Edge], [7:0-1-8,0-3-0]

| 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 | 0.91 | Vert(LL) | -0.07 | 6-7 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.44 | Vert(CT) | -0.16 | 6-7 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.97 | Horz(CT) | 0.10 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.02 | 6-7 | >999 | 240 | Weight: 56 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* |
| | 2-7: 2x8 SP DSS |
| OTHERS | 2x4 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4. |
| BOT CHORD | Rigid ceiling directly applied or 9-6-13 oc bracing. |

**REACTIONS.** (size) 7=0-3-8, 9=0-3-0
Max Horz 7=145(LC 5)
Max Uplift 7=-95(LC 8), 9=-97(LC 5)
Max Grav 7=870(LC 1), 9=726(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-912/49, 5-8=-31/476, 4-8=-31/476, 2-7=-803/139
BOT CHORD 6-7=-374/801, 5-6=-94/664
WEBS 3-6=0/306, 3-5=-717/103, 2-6=-179/320, 4-9=-735/99

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 9.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


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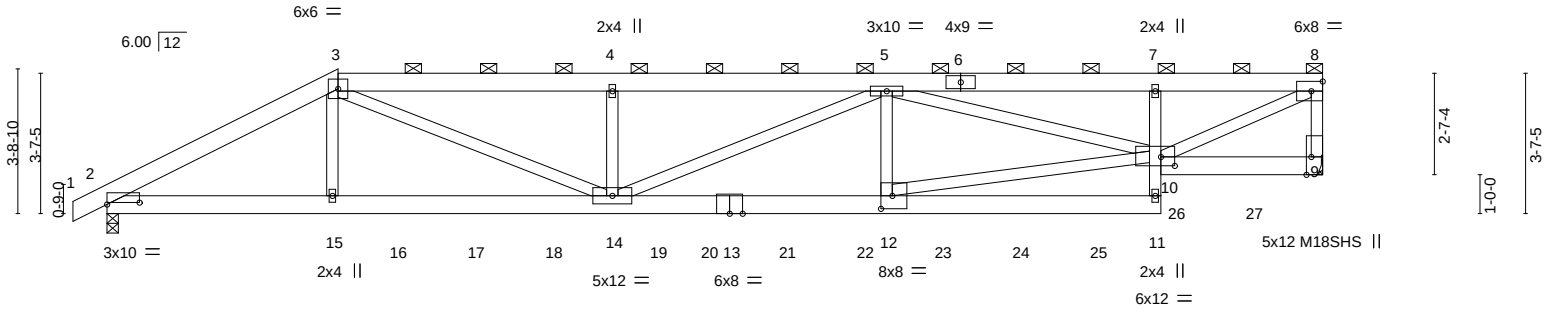
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | B1 | Half Hip Girder | 1 | 2 | I44539501 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:02 2021 Page 1
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-VpBxEkXPSkkWXVohO1muT0Ywu9c2vcwkzsYILGzrU?t

| -0-10-8 | 5-11-4 | 12-11-13 | 20-0-7 | 27-1-0 | 31-2-14 |
|---|---|---|---|---|---|
| 0-10-8 | 5-11-4 | 7-0-9 | 7-0-9 | 7-0-9 | 4-1-14 |

Scale = 1:59.2




| 5-11-4 | 12-11-13 | 20-0-7 | 27-1-0 | 31-2-14 |
|---|---|---|---|---|
| 5-11-4 | 7-0-9 | 7-0-9 | 7-0-9 | 4-1-14 |

Plate Offsets (X,Y)-- [2:0-10-0,0-0-9], [9:0-5-8,Edge], [10:0-4-4,0-2-12], [12:0-3-8,0-4-0]

| 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 | 0.53 | Vert(LL) | -0.23 | 12-14 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.69 | Vert(CT) | -0.50 | 12-14 | >747 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.88 | Horz(CT) | 0.09 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.15 | 12-14 | >999 | 240 | Weight: 333 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF 1650F 1.4E *Except*
9-10: 2x6 SPF No.2
WEBS 2x4 SPF No.2 *Except*
10-12: 2x4 SPF 2100F 1.8E

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-7-12 oc purlins, except end verticals, and 2-0-0 oc purlins (4-6-4 max.): 3-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 9=Mechanical, 2=0-3-8
Max Horz 2=93(LC 24)
Max Uplift 9=-359(LC 5), 2=-331(LC 5)
Max Grav 9=3849(LC 1), 2=3785(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7302/722, 3-4=-9789/942, 4-5=-9787/941, 5-7=-6324/606, 7-8=-6449/614, 8-9=-3578/354
BOT CHORD 2-15=-676/6286, 14-15=-670/6225, 12-14=-884/9238, 11-12=-35/395
WEBS 10-11=-15/448, 7-10=-462/131, 3-15=-137/1338, 3-14=-364/3995, 4-14=-701/128, 5-14=-92/601, 5-12=-325/360, 10-12=-858/8931, 5-10=-3046/272, 8-10=-690/7173

**NOTES-**
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=359, 2=331.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.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Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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Chesterfield, MO 63017

**NOTES-**

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 725 lb down and 176 lb up at 5-11-4, 285 lb down and 44 lb up at 7-5-4, 285 lb down and 44 lb up at 9-5-4, 285 lb down and 44 lb up at 11-5-4, 285 lb down and 44 lb up at 13-5-4, 285 lb down and 44 lb up at 15-5-4, 285 lb down and 44 lb up at 17-5-4, 285 lb down and 44 lb up at 19-5-4, 285 lb down and 44 lb up at 21-5-4, 285 lb down and 44 lb up at 23-5-4, 285 lb down and 44 lb up at 25-5-4, and 285 lb down and 46 lb up at 27-5-4, and 285 lb down and 46 lb up at 29-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-90, 3-8=-90, 2-11=-20, 9-10=-20
   Concentrated Loads (lb)
   Vert: 15=-725(F) 16=-285(F) 17=-285(F) 18=-285(F) 19=-285(F) 20=-285(F) 21=-285(F) 22=-285(F) 23=-285(F) 24=-285(F) 25=-285(F) 26=-285(F) 27=-285(F)


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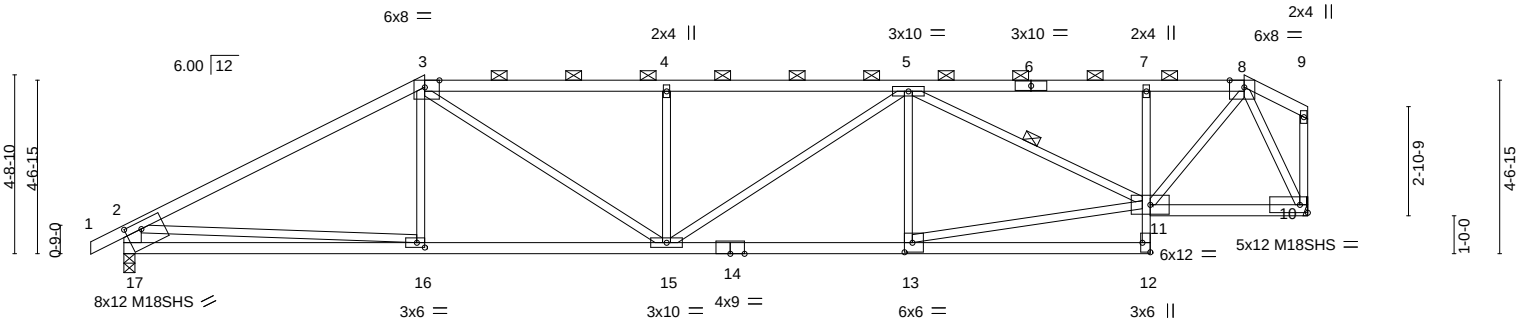
| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | B2 | Hip | 1 | 1 | I44539502 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:03 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-_?kJS3Y1D2sN9fNuykH70E535YxLe2QtCWHrtjzrU?s

| -0-10-8 | 7-11-4 | 14-3-13 | 20-8-7 | 27-1-0 | 29-6-12 | 31-2-14 |
|---|---|---|---|---|---|---|
| 0-10-8 | 7-11-4 | 6-4-9 | 6-4-9 | 6-4-9 | 2-5-12 | 1-8-2 |

Scale = 1:60.8




| 7-11-4 | 14-3-13 | 20-8-7 | 27-1-0 | 31-2-14 |
|---|---|---|---|---|
| 7-11-4 | 6-4-9 | 6-4-9 | 6-4-9 | 4-1-14 |

Plate Offsets (X,Y)-- [3:0-4-10,Edge], [8:0-4-10,Edge], [12:Edge,0-2-8], [13:0-2-8,0-3-0], [16:0-2-8,0-1-8], [17:0-5-0,0-2-4]

| 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 | 0.69 | Vert(LL) | -0.14 | 13-15 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.75 | Vert(CT) | -0.34 | 13-15 | >999 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.93 | Horz(CT) | 0.09 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.08 | 13-15 | >999 | 240 | Weight: 124 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
8-9,6-8: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-17: 2x6 SP DSS

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-6-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-14 max.): 3-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-11

**REACTIONS.** (size) 17=0-3-8, 10=Mechanical
Max Horz 17=122(LC 5)
Max Uplift 17=-9(LC 5), 10=-39(LC 5)
Max Grav 17=1801(LC 1), 10=1698(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2756/60, 3-4=-3120/113, 4-5=-3117/112, 5-7=-1896/86, 7-8=-1904/84, 2-17=-1726/52
BOT CHORD 16-17=-189/1086, 15-16=-101/2314, 13-15=-123/2820, 7-11=-504/86, 10-11=-48/742
WEBS 3-15=-94/1080, 4-15=-640/115, 5-15=-20/362, 5-13=-301/104, 11-13=-127/2702, 5-11=-1049/30, 8-11=-75/1898, 2-16=-37/1413, 8-10=-1706/79

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.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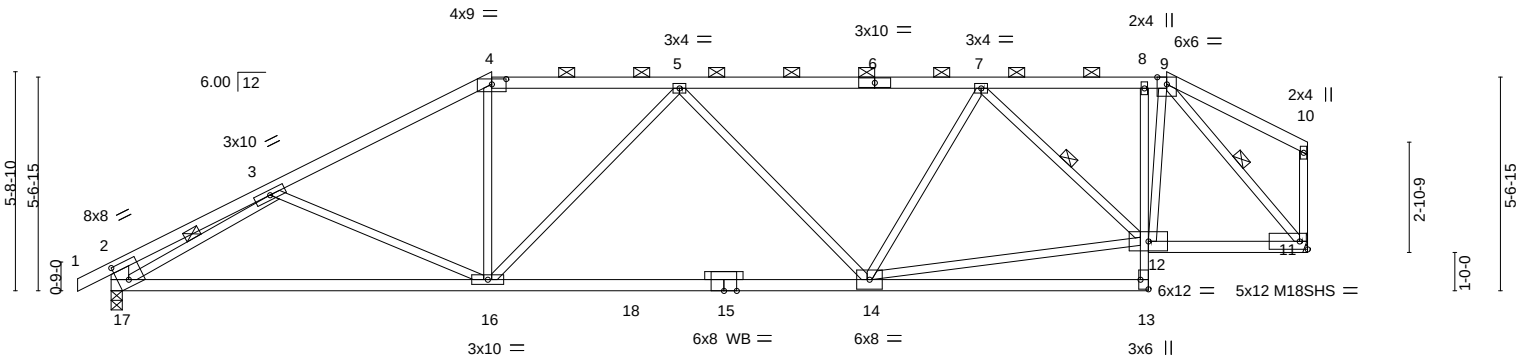
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | B3 | Hip | 1 | 1 | I44539503 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:05 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-wOs4tlaIlf75OzWG39Jb5fALfMdB6zxAfqmyybzrU?q

| -0-10-8 | 4-3-4 | 9-11-4 | 14-10-1 | 22-8-9 | 27-1-0 | 27-6-12 | 31-2-14 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 4-3-4 | 5-8-0 | 4-10-13 | 7-10-8 | 4-4-7 | 0-5-12 | 3-8-2 |

Scale = 1:60.2




| 9-11-4 | 19-8-14 | 27-1-0 | 27-6-12 | 31-2-14 |
|---|---|---|---|---|
| 9-11-4 | 9-9-10 | 7-4-2 | 0-5-12 | 3-8-2 |

Plate Offsets (X,Y)-- [2:0-3-5,0-5-12], [4:0-4-8,0-1-11], [13:Edge,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 | 0.94 | Vert(LL) | -0.27 | 14-16 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.66 | Vert(CT) | -0.50 | 14-16 | >736 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.86 | Horz(CT) | 0.09 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.06 | 14-16 | >999 | 240 | Weight: 129 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except* 4-6: 2x4 SPF 2100F 1.8E |
| BOT CHORD | 2x4 SPF 2100F 1.8E *Except* 8-13: 2x3 SPF No.2, 11-12: 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 2-17: 2x6 SPF No.2 |
| OTHERS | 2x3 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 4-9. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 1 Row at midpt 7-12, 3-17, 9-11 |

**REACTIONS.** (size) 17=0-3-8, 11=Mechanical
Max Horz 17=132(LC 5)
Max Uplift 11=-7(LC 4)
Max Grav 17=1845(LC 2), 11=1754(LC 2)

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

| | |
|---|---|
| TOP CHORD | 2-3=-663/0, 3-4=-2642/39, 4-5=-2268/49, 5-7=-2398/45, 7-8=-1450/55, 8-9=-1456/54, 2-17=-507/15 |
| BOT CHORD | 16-17=-133/2376, 14-16=-119/2600, 11-12=-43/1295 |
| WEBS | 4-16=0/782, 5-16=-656/129, 5-14=-378/83, 7-14=0/320, 12-14=-99/2131, 7-12=-1161/71, 9-12=-27/1241, 3-17=-2235/82, 9-11=-1980/44 |

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021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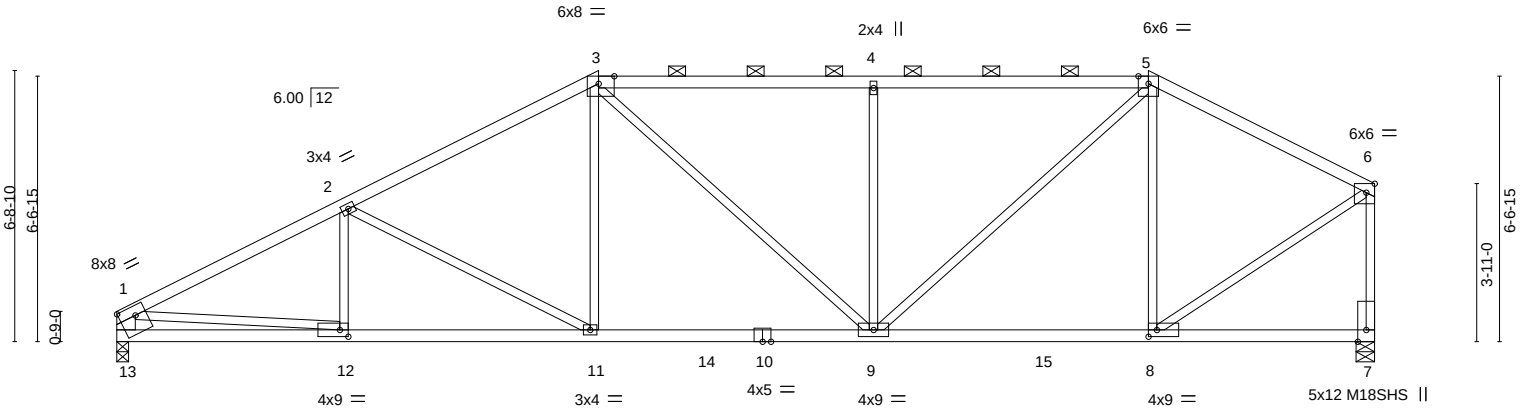
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | C1 | Hip | 1 | 1 | I44539504 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:06 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-OaQS45awWzFy075SdtqqesjXNmwirSVJuUWWU2zrU?p

| 5-7-9 | 11-11-4 | 18-9-0 | 25-6-12 | 31-2-0 |
|---|---|---|---|---|
| 5-7-9 | 6-3-11 | 6-9-12 | 6-9-12 | 5-7-4 |

Scale = 1:57.1




| 5-7-9 | 11-11-4 | 18-9-0 | 25-6-12 | 31-2-0 |
|---|---|---|---|---|
| 5-7-9 | 6-3-11 | 6-9-12 | 6-9-12 | 5-7-4 |

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

| 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 | 0.88 | Vert(LL) | -0.14 | 9-11 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.83 | Vert(CT) | -0.29 | 9-11 | >999 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.71 | Horz(CT) | 0.07 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 9-11 | >999 | 240 | Weight: 124 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-13: 2x6 SPF No.2

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

**REACTIONS.** (size) 13=0-3-8, 7=0-5-8
Max Horz 13=185(LC 5)
Max Uplift 13=-143(LC 8), 7=-108(LC 4)
Max Grav 13=1767(LC 2), 7=1784(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2898/232, 2-3=-2450/216, 3-4=-2184/245, 4-5=-2184/245, 5-6=-1545/160, 1-13=-1662/170, 6-7=-1711/135
BOT CHORD 12-13=-189/476, 11-12=-283/2516, 9-11=-246/2090, 8-9=-146/1321
WEBS 2-11=-506/194, 3-11=-12/512, 3-9=-126/301, 4-9=-731/232, 5-9=-176/1211, 5-8=-689/160, 1-12=-104/2080, 6-8=-138/1557

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=143, 7=108.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | C2 | Hip | 1 | 1 | I44539505 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:07 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-sm_qIRbYGGNpeHgfBaL3A4Fj?ALKawQT78F30UzrU?o

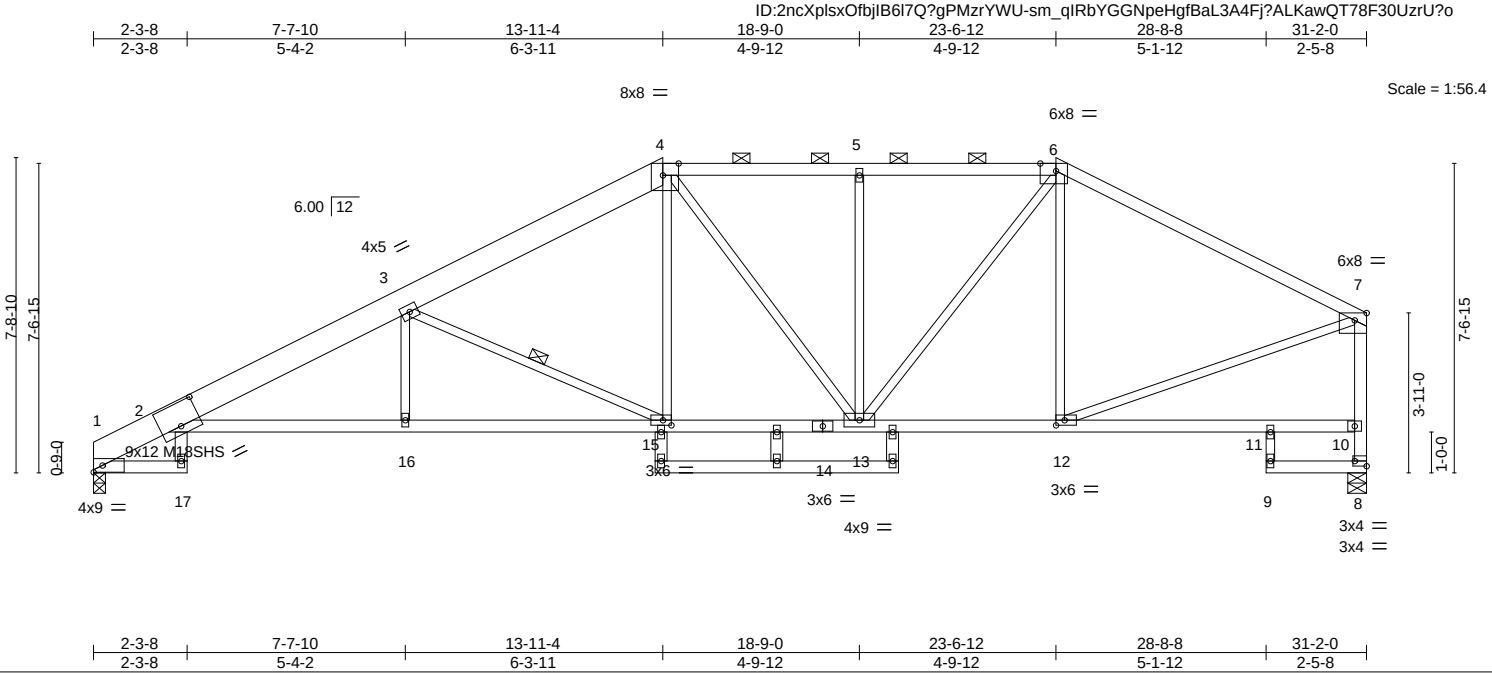


Plate Offsets (X,Y)-- [2:0-6-0,0-6-10], [4:0-4-10,Edge], [6:0-4-10,Edge], [7:0-3-8,Edge], [8:Edge,0-1-8], [12:0-2-8,0-1-8], [15:0-2-8,0-1-8]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.83 | Vert(LL) | -0.18 | 2-16 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.55 | Vert(CT) | -0.40 | 2-16 | >927 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.67 | Horz(CT) | 0.27 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.14 | 2-16 | >999 | 240 | Weight: 164 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x8 SP DSS *Except* |
| | 4-6: 2x4 SPF No.2, 6-7: 2x4 SPF 2100F 1.8E |
| BOT CHORD | 2x4 SPF No.2 *Except* |
| | 2-14: 2x4 SPF 2100F 1.8E |
| WEBS | 2x3 SPF No.2 *Except* |
| | 2-17,7-8,15-18,19-20,21-22: 2x4 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-3 max.): 4-6. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-17. 10-0-0 oc bracing: 13-15 |
| WEBS | 1 Row at midpt 3-15 |

**REACTIONS.** (size) 1=0-3-8, 8=0-5-8
Max Horz 1=202(LC 5)
Max Uplift 1=-155(LC 8), 8=-99(LC 9)
Max Grav 1=1706(LC 1), 8=1699(LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-2=-974/53, 2-3=-3643/345, 3-4=-2499/223, 4-5=-2029/197, 5-6=-2031/199, 6-7=-1875/126, 8-10=-1658/115, 7-10=-1617/139 |
| BOT CHORD | 2-16=-365/3358, 15-16=-363/3358, 13-15=-213/2097, 12-13=-135/1555 |
| WEBS | 3-15=-1411/309, 4-15=-63/722, 5-13=-484/159, 6-13=-135/866, 6-12=-394/120, 7-12=-111/1511 |

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 1=155.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021


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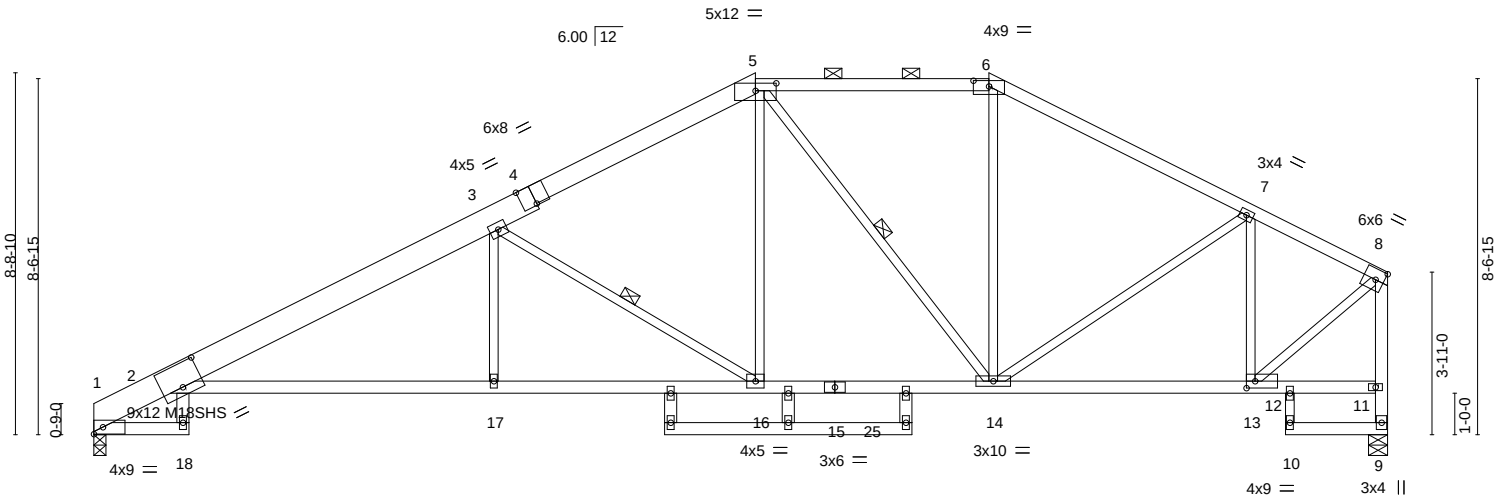
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | C3 | Hip | 1 | 1 | I44539506 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:08 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-KzYCVncA1aVgFRFrkHtljHoucZe3JMbcLo?cYwzrU?n

| 2-3-8 | 9-7-10 | 15-11-4 | 21-6-12 | 27-10-7 | 28-8-8 | 31-2-0 |
|---|---|---|---|---|---|---|
| 2-3-8 | 7-4-2 | 6-3-10 | 5-7-8 | 6-3-11 | 0-10-1 | 2-5-8 |

Scale = 1:55.5




| 2-3-8 | 9-7-10 | 15-11-4 | 21-6-12 | 25-1-10 | 28-8-8 | 31-2-0 |
|---|---|---|---|---|---|---|
| 2-3-8 | 7-4-2 | 6-3-10 | 5-7-8 | 3-6-14 | 3-6-14 | 2-5-8 |

Plate Offsets (X,Y)-- [2:0-6-0,0-6-10], [4:0-4-0,Edge], [5:0-6-0,0-2-3], [6:0-4-8,0-1-11], [13:0-2-8,0-2-0]

| 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 | 0.77 | Vert(LL) | -0.29 | 2-17 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.71 | Vert(CT) | -0.61 | 2-17 | >605 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.74 | Horz(CT) | 0.34 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.18 | 2-17 | >999 | 240 | Weight: 160 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except*<br>4-5: 2x6 SPF No.2, 1-4: 2x8 SP DSS |
| BOT CHORD | 2x4 SPF No.2 *Except*<br>2-15: 2x4 SPF 2100F 1.8E |
| WEBS | 2x3 SPF No.2 *Except*<br>2-18,8-9,19-21,20-22,23-24: 2x4 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-12 max.): 5-6. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing, Except:<br>6-0-0 oc bracing: 1-18.<br>10-0-0 oc bracing: 14-16 |
| WEBS | 1 Row at midpt 3-16, 5-14 |

**REACTIONS.** (size) 1=0-3-8, 9=0-5-8
Max Horz 1=214(LC 5)
Max Uplift 1=-169(LC 8), 9=-120(LC 9)
Max Grav 1=1770(LC 2), 9=1792(LC 2)

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

| | |
|---|---|
| TOP CHORD | 1-2=-1041/44, 2-3=-3379/334, 3-5=-2289/244, 5-6=-1616/186, 6-7=-1916/186, 7-8=-1421/104, 9-11=-1747/134, 8-11=-1729/128 |
| BOT CHORD | 2-17=-344/3065, 16-17=-342/3065, 14-16=-133/1904, 13-14=-121/1249 |
| WEBS | 3-17=0/306, 3-16=-1391/318, 5-16=-103/959, 5-14=-548/113, 6-14=-12/378, 7-14=-55/501, 7-13=-919/140, 8-13=-113/1622 |

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=169, 9=120.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | C4 | Hip | 1 | 1 | I44539507 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:09 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-o96ai7dooudWtaq1I?OXFVL4Pz?N2qgmaSkA5MzrU?m

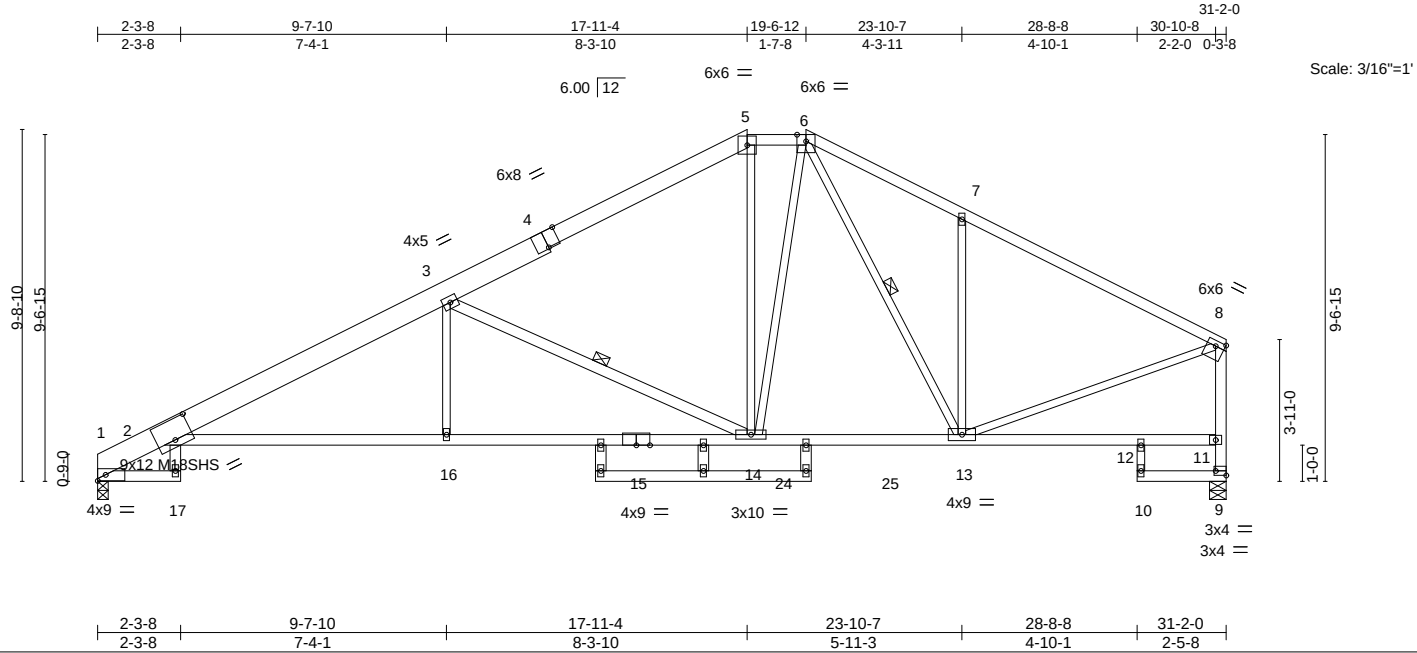


Plate Offsets (X,Y)-- [2:0-6-0,0-6-10], [4:0-4-0,Edge], [8:Edge,0-1-12], [9:Edge,0-1-8]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.77 | Vert(LL) | -0.27 | 2-16 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.64 | Vert(CT) | -0.57 | 2-16 | >646 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.69 | Horz(CT) | 0.33 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.18 | 2-16 | >999 | 240 | Weight: 169 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x6 SPF No.2 *Except*
5-6: 2x4 SPF No.2, 6-8: 2x4 SPF 2100F 1.8E, 1-4: 2x8 SP DSS
BOT CHORD 2x4 SPF No.2 *Except*
2-15,11-15: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-17,3-14,8-9,18-20,19-21,22-23: 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-6-3 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 1-17.
10-0-0 oc bracing: 14-16
WEBS 1 Row at midpt 3-14, 6-13

**REACTIONS.** (size) 1=0-3-8, 9=0-5-8
Max Horz 1=225(LC 5)
Max Uplift 1=-180(LC 8), 9=-139(LC 9)
Max Grav 1=1767(LC 2), 9=1798(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1062/36, 2-3=-3453/390, 3-5=-2031/241, 5-6=-1637/261, 6-7=-1905/298, 7-8=-1940/187, 9-11=-1740/154, 8-11=-1640/177
BOT CHORD 2-16=-420/3147, 14-16=-419/3148, 13-14=-38/1551
WEBS 3-16=0/343, 3-14=-1685/400, 5-14=-21/536, 6-14=-113/558, 6-13=-182/301, 7-13=-588/267, 8-13=-93/1617

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=180, 9=139.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | C5 | Roof Special | 3 | 1 | I44539508 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:10 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-GLgzwTeQZBlNVkPEsivmoitBcNMEnIlvp6UjdpzrU?l

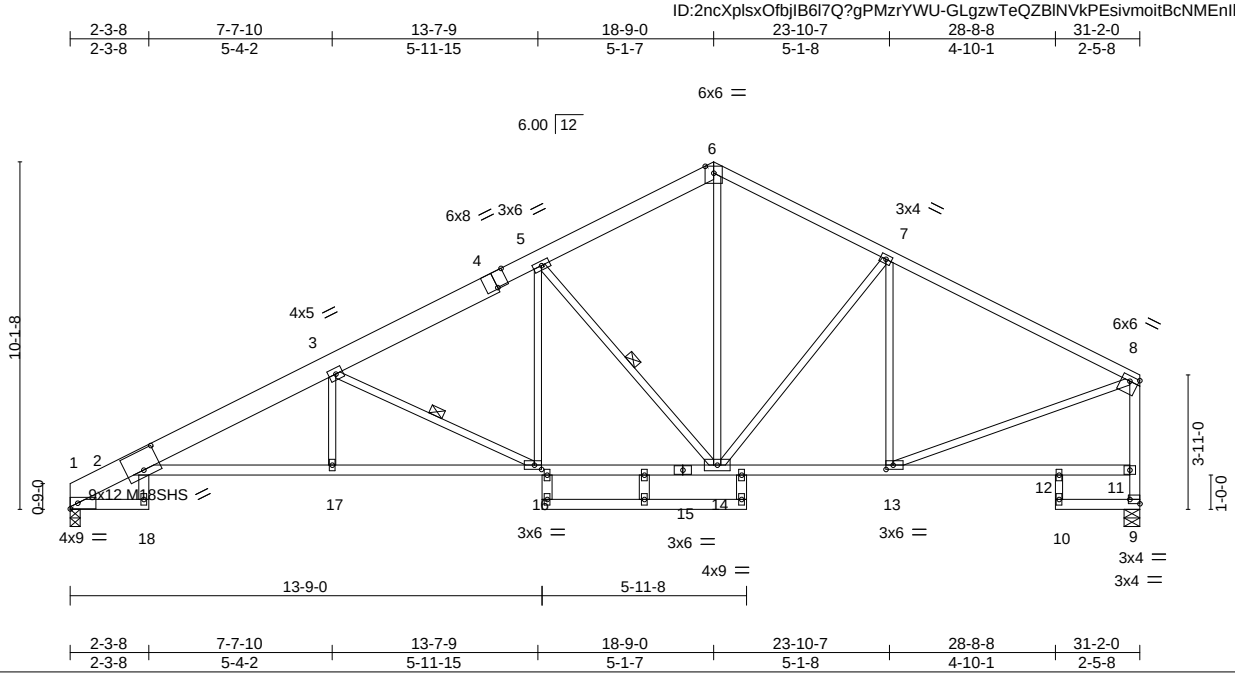


Plate Offsets (X,Y)-- [2:0-6-0,0-6-10], [4:0-4-0,Edge], [8:Edge,0-1-12], [9:Edge,0-1-8], [13:0-2-8,0-1-8], [16:0-2-8,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.99 | Vert(LL) | -0.18 | 2-17 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.60 | Vert(CT) | -0.40 | 2-17 | >916 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.63 | Horz(CT) | 0.28 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.15 | 2-17 | >999 | 240 | Weight: 168 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x6 SPF No.2 *Except* |
| | 6-8: 2x4 SPF No.2, 1-4: 2x8 SP DSS |
| BOT CHORD | 2x4 SPF No.2 *Except* |
| | 2-15: 2x4 SPF 2100F 1.8E |
| WEBS | 2x3 SPF No.2 *Except* |
| | 2-18,8-9,19-21,20-22,23-24: 2x4 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing, Except: |
| | 6-0-0 oc bracing: 1-18. |
| | 10-0-0 oc bracing: 14-16 |
| WEBS | 1 Row at midpt 3-16, 5-14 |

**REACTIONS.** (size) 1=0-3-8, 9=0-5-8
Max Horz 1=232(LC 5)
Max Uplift 1=-184(LC 8), 9=-145(LC 9)
Max Grav 1=1706(LC 1), 9=1699(LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-2=-974/33, 2-3=-3634/429, 3-5=-2545/319, 5-6=-1721/256, 6-7=-1741/281, 7-8=-1875/201, 9-11=-1659/161, 8-11=-1619/184 |
| BOT CHORD | 2-17=-489/3349, 16-17=-487/3349, 14-16=-216/2122, 13-14=-119/1559 |
| WEBS | 3-16=-1377/304, 5-16=-68/731, 5-14=-1060/258, 6-14=-144/1047, 7-14=-296/157, 7-13=-429/119, 8-13=-107/1550 |

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) All plates are 2x4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=184, 9=145.
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.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | C6 | Roof Special | 3 | 1 | I44539509 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:12 2021 Page 1
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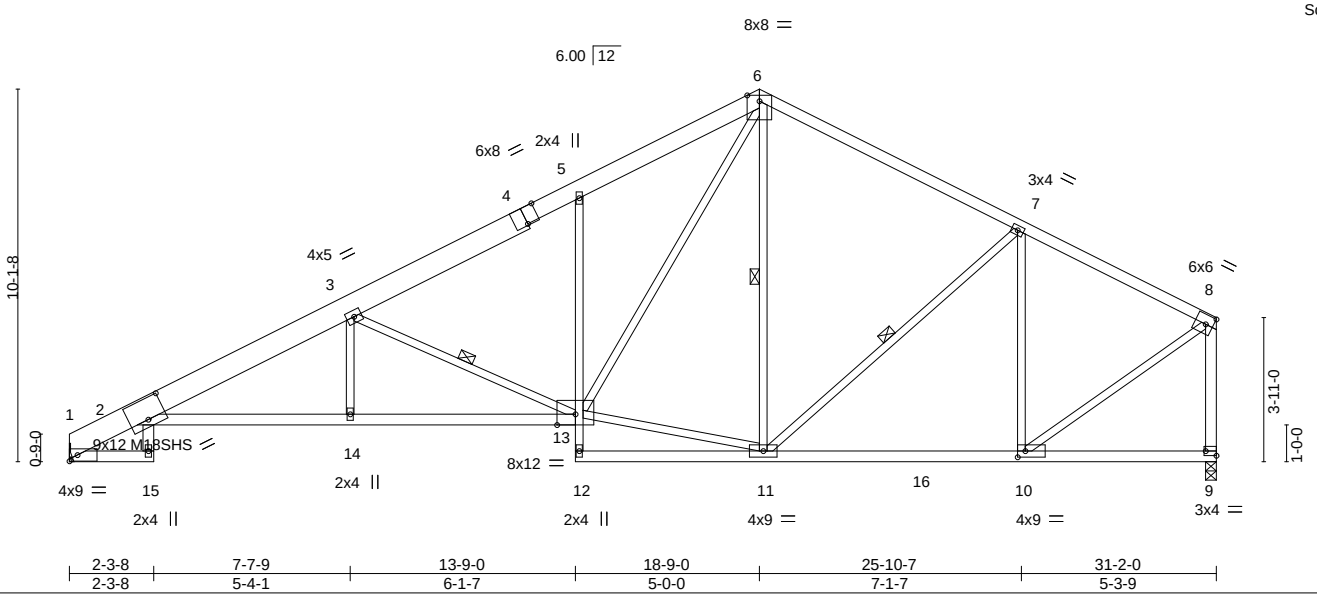
| 2-3-8 | 7-7-9 | 13-9-0 | 18-9-0 | 25-10-7 | 31-2-0 |
|---|---|---|---|---|---|
| 2-3-8 | 5-4-1 | 6-1-7 | 5-0-0 | 7-1-7 | 5-3-9 |

Scale = 1:62.6




| 2-3-8 | 7-7-9 | 13-9-0 | 18-9-0 | 25-10-7 | 31-2-0 |
|---|---|---|---|---|---|
| 2-3-8 | 5-4-1 | 6-1-7 | 5-0-0 | 7-1-7 | 5-3-9 |

Plate Offsets (X,Y)-- [2:0-6-0,0-6-10], [4:0-4-0,Edge], [9:Edge,0-1-8], [10:0-2-8,0-2-0]

| 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 | 0.79 | Vert(LL) | -0.21 | 2-14 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.60 | Vert(CT) | -0.45 | 13-14 | >830 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.72 | Horz(CT) | 0.29 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.11 | 2-14 | >999 | 240 | Weight: 163 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x6 SPF No.2 *Except* 6-8: 2x4 SPF No.2, 1-4: 2x8 SP DSS |
| BOT CHORD | 2x4 SPF No.2 *Except* 2-13: 2x4 SPF 2100F 1.8E, 5-12: 2x3 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 2-15,8-9: 2x4 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-15. |
| WEBS | 1 Row at midpt 3-13, 6-11, 7-11 |

**REACTIONS.** (size) 1=Mechanical, 9=0-3-8
Max Horz 1=190(LC 5)
Max Uplift 1=-21(LC 8), 9=-1(LC 9)
Max Grav 1=1764(LC 2), 9=1775(LC 2)

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

| | |
|---|---|
| TOP CHORD | 1-2=-1040/0, 2-3=-3786/84, 3-5=-2573/83, 5-6=-2462/167, 6-7=-1661/104, 7-8=-1515/42, 8-9=-1706/23 |
| BOT CHORD | 2-14=-115/3595, 13-14=-113/3596, 5-13=-402/126, 10-11=-4/1296 |
| WEBS | 3-14=0/252, 3-13=-1559/121, 11-13=0/1377, 6-13=-128/1626, 7-10=-744/74, 8-10=0/1569 |

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
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) 1, 9.
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.


January 27,2021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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | C7 | Hip | 1 | 1 | I44539510 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:13 2021 Page 1
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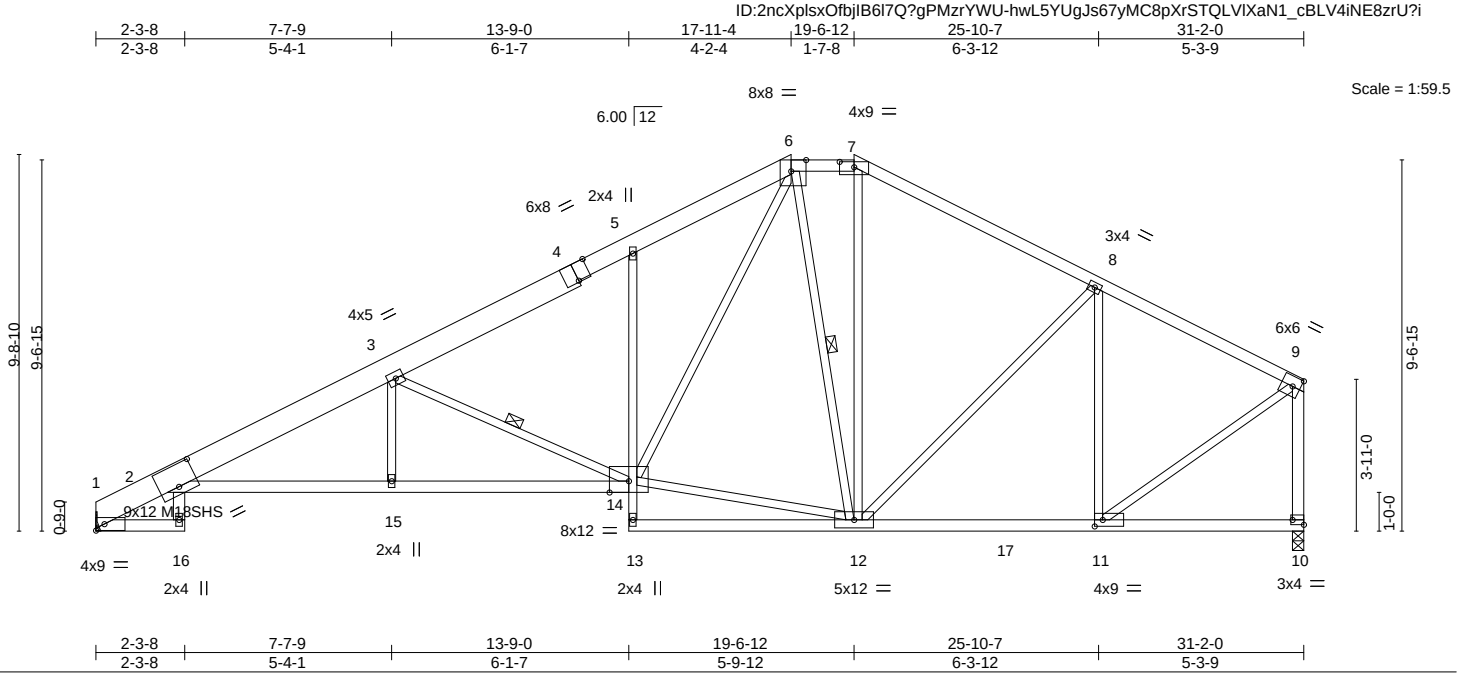


Plate Offsets (X,Y)-- [2:0-6-0,0-6-10], [4:0-4-0,Edge], [6:0-4-10,Edge], [7:0-4-8,0-1-11], [10:Edge,0-1-8], [11:0-2-8,0-2-0]

| 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 | 0.76 | Vert(LL) | -0.21 | 14-15 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.60 | Vert(CT) | -0.45 | 14-15 | >828 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.72 | Horz(CT) | 0.29 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.11 | 2-15 | >999 | 240 | Weight: 168 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2 *Except*
4-6: 2x6 SPF No.2, 1-4: 2x8 SP DSS
BOT CHORD 2x4 SPF No.2 *Except*
2-14: 2x4 SPF 2100F 1.8E, 5-13: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-16,9-10: 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-11-12 oc purlins, except end verticals, and 2-0-0 oc purlins (4-8-11 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-16.
WEBS 1 Row at midpt 3-14, 6-12

**REACTIONS.** (size) 1=Mechanical, 10=0-3-8
Max Horz 1=186(LC 7)
Max Uplift 1=-19(LC 8)
Max Grav 1=1763(LC 2), 10=1772(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1032/0, 2-3=-3783/78, 3-5=-2569/77, 5-6=-2445/149, 6-7=-1387/91, 7-8=-1665/89, 8-9=-1502/37, 9-10=-1696/21
BOT CHORD 2-15=-104/3573, 14-15=-102/3574, 5-14=-342/117, 11-12=0/1280
WEBS 3-15=0/253, 3-14=-1557/121, 12-14=0/1438, 6-14=-111/1537, 6-12=-633/67, 7-12=-8/427, 8-12=-20/266, 8-11=-746/64, 9-11=0/1545

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | C8 | Hip | 1 | 1 | I44539511 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:14 2021 Page 1
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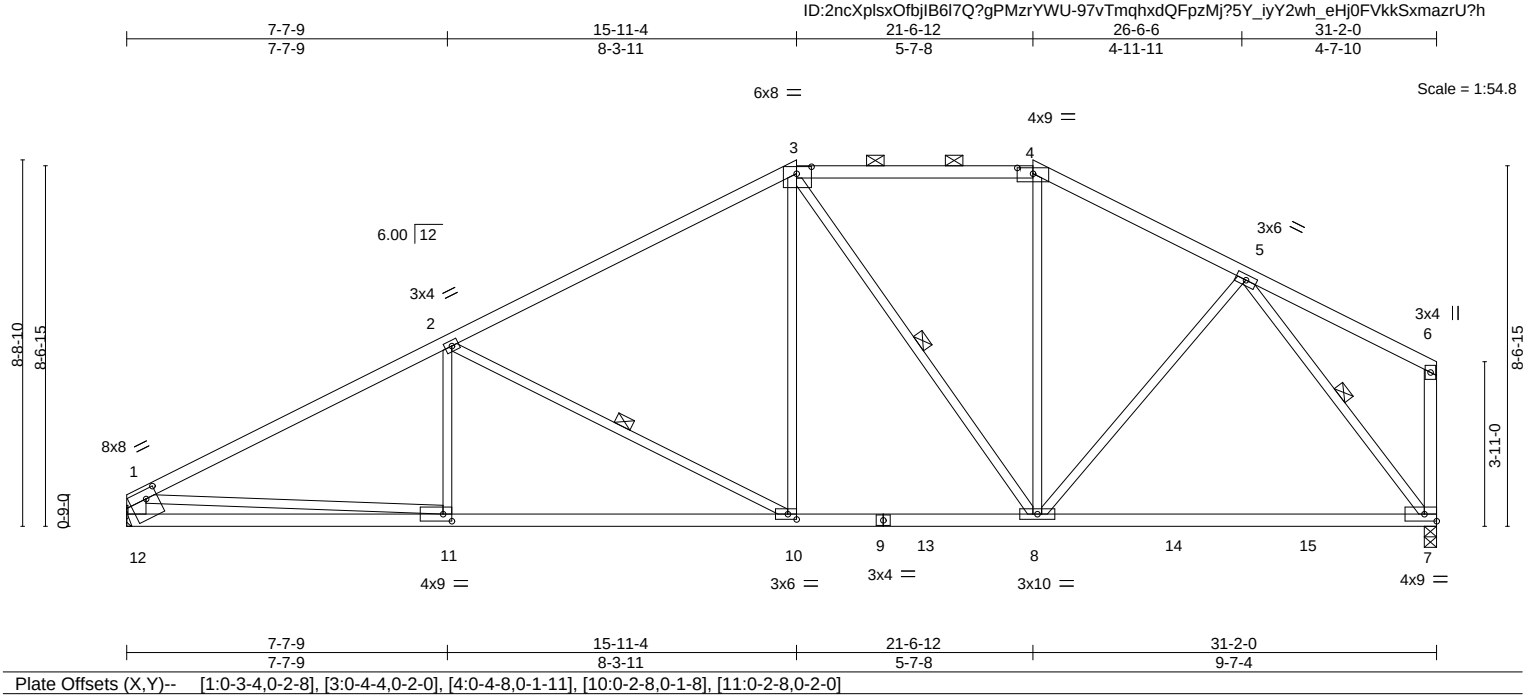


Plate Offsets (X,Y)-- [1:0-3-4,0-2-8], [3:0-4-4,0-2-0], [4:0-4-8,0-1-11], [10:0-2-8,0-1-8], [11:0-2-8,0-2-0]

| 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 | 0.73 | Vert(LL) | -0.27 | 7-8 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.91 | Vert(CT) | -0.47 | 7-8 | >787 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.92 | Horz(CT) | 0.07 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.05 | 10-11 | >999 | 240 | Weight: 129 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
9-12: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-12: 2x6 SPF No.2, 6-7: 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-13 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 10-11.
WEBS 1 Row at midpt 2-10, 3-8, 5-7

**REACTIONS.** (size) 12=Mechanical, 7=0-3-8
Max Horz 12=173(LC 7)
Max Uplift 12=-17(LC 8)
Max Grav 12=1760(LC 2), 7=1799(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2896/44, 2-3=-2048/58, 3-4=-1448/52, 4-5=-1706/48, 1-12=-1637/55
BOT CHORD 11-12=-144/679, 10-11=-56/2501, 8-10=-7/1688, 7-8=-12/1139
WEBS 2-10=-927/126, 3-10=0/677, 3-8=-524/58, 4-8=0/340, 5-8=0/542, 1-11=0/1879, 5-7=-1813/12

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
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) 12.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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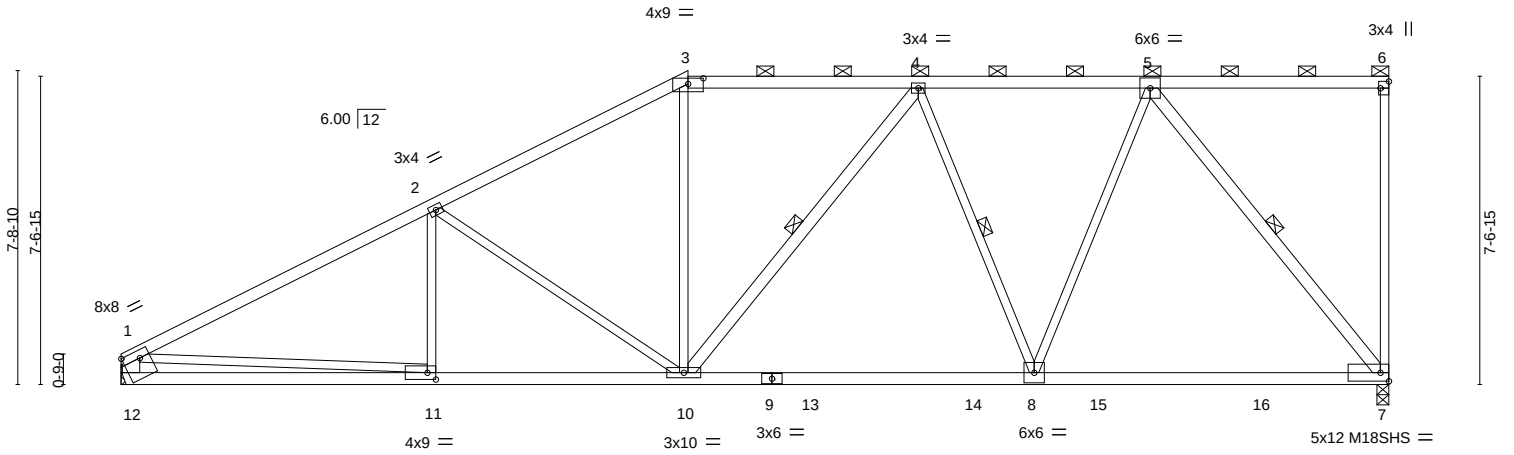
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | D1 | Half Hip | 1 | 1 | I44539512 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:15 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-dJTszAhZOkNgbVHBfGVxVmb8vO?ZSSoeyOBUI0zrU?g

| 7-7-10 | 13-11-4 | 19-7-3 | 25-3-9 | 31-2-0 |
|---|---|---|---|---|
| 7-7-10 | 6-3-11 | 5-7-15 | 5-8-6 | 5-10-7 |

Scale = 1:56.6




| 7-7-10 | 13-11-4 | 22-5-6 | 31-2-0 |
|---|---|---|---|
| 7-7-10 | 6-3-11 | 8-6-2 | 8-8-10 |

Plate Offsets (X,Y)-- [1:Edge,0-2-4], [3:0-4-8,0-1-11], [6:Edge,0-2-8], [11:0-2-8,0-2-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.57 | Vert(LL) | -0.19 | 7-8 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.85 | Vert(CT) | -0.34 | 7-8 | >999 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.97 | Horz(CT) | 0.07 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.04 | 8-10 | >999 | 240 | Weight: 133 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
3-6: 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
9-12: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
4-10,5-7: 2x4 SPF No.2, 1-12: 2x6 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-8-13 oc purlins, except end verticals, and 2-0-0 oc purlins (3-8-15 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-10, 4-8, 5-7

**REACTIONS.** (size) 7=0-3-8, 12=Mechanical
Max Horz 12=238(LC 7)
Max Uplift 7=-72(LC 5), 12=-7(LC 8)
Max Grav 7=1821(LC 2), 12=1768(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2868/24, 2-3=-2245/38, 3-4=-1900/57, 4-5=-1588/30, 1-12=-1633/49
BOT CHORD 11-12=-209/744, 10-11=-145/2456, 8-10=-126/1813, 7-8=-105/1194
WEBS 2-10=-700/110, 3-10=0/542, 4-8=-692/96, 5-8=0/1080, 5-7=-1908/98, 1-11=0/1763

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021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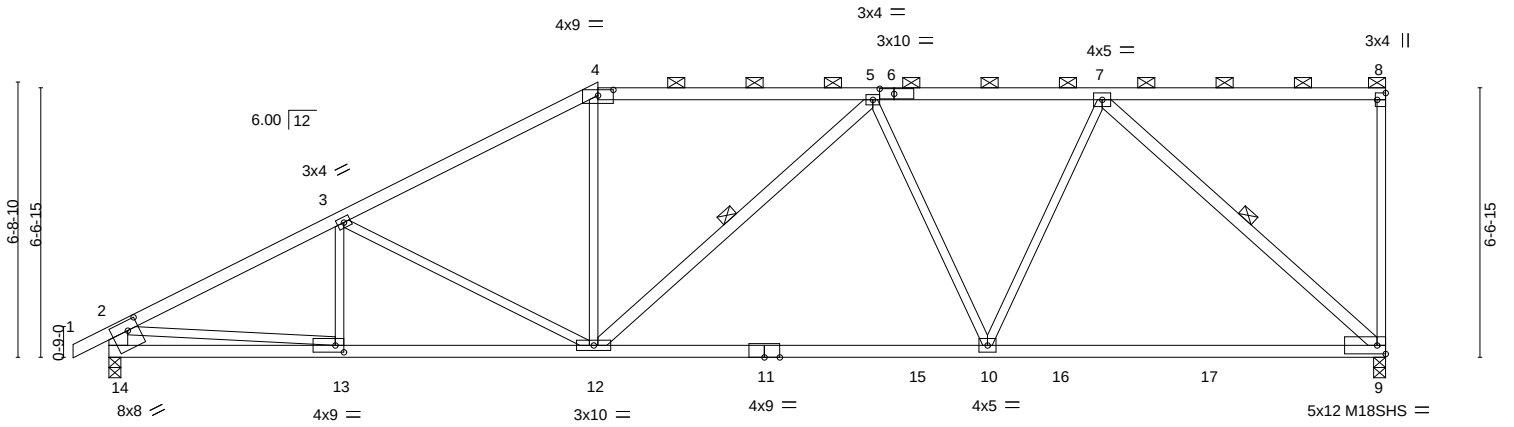
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | D2 | Half Hip | 1 | 1 | I44539513 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:16 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-5V1EAWiB91VXDfsNCz0A1z7EIoKJBxfnB2x2qSzrU?f

| -0-10-8 | 5-7-9 | 11-11-4 | 18-7-13 | 24-2-15 | 31-2-0 |
|---|---|---|---|---|---|
| 0-10-8 | 5-7-9 | 6-3-11 | 6-8-9 | 5-7-3 | 6-11-1 |

Scale = 1:56.2




| 5-7-9 | 11-11-4 | 21-5-6 | 31-2-0 |
|---|---|---|---|
| 5-7-9 | 6-3-11 | 9-6-2 | 9-8-10 |

Plate Offsets (X,Y)-- [4:0-4-8,0-1-11], [6:0-4-4,0-1-8], [8:Edge,0-2-8], [13:0-2-8,0-2-0], [14:0-3-4,0-2-12]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.85 | Vert(LL) | -0.27 | 9-10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.94 | Vert(CT) | -0.48 | 9-10 | >772 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.86 | Horz(CT) | 0.08 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 10-12 | >999 | 240 | Weight: 128 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except* 4-6: 2x4 SPF 2100F 1.8E |
| BOT CHORD | 2x4 SPF No.2 *Except* 9-11: 2x4 SPF 2100F 1.8E |
| WEBS | 2x3 SPF No.2 *Except* 5-12,7-9: 2x4 SPF No.2, 2-14: 2x6 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-6-14 max.): 4-8. |
| BOT CHORD | Rigid ceiling directly applied or 2-2-0 oc bracing. |
| WEBS | 1 Row at midpt 5-12, 7-9 |

**REACTIONS.** (size) 9=0-3-8, 14=0-3-8
Max Horz 14=269(LC 5)
Max Uplift 9=-250(LC 5), 14=-167(LC 8)
Max Grav 9=1808(LC 2), 14=1856(LC 2)

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

| | |
|---|---|
| TOP CHORD | 2-3=-2884/229, 3-4=-2459/218, 4-5=-2102/218, 5-7=-1970/213, 8-9=-264/91, 2-14=-1748/196 |
| BOT CHORD | 13-14=-277/564, 12-13=-360/2493, 10-12=-356/2163, 9-10=-286/1569 |
| WEBS | 3-12=-470/196, 4-12=0/566, 5-12=-251/147, 5-10=-568/162, 7-10=-11/985, 7-9=-2108/316, 2-13=-83/1955 |

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=250, 14=167.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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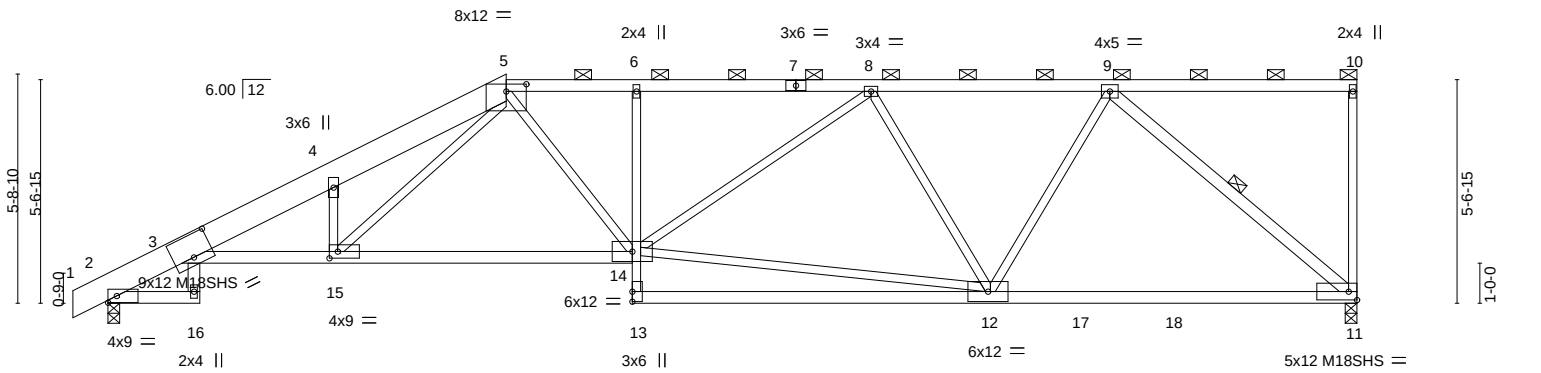
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | D3 | Half Hip | 1 | 1 | I44539514 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:16 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-5V1EAWiB91VXDfsNCz0A1z7HNoPOBwsnB2x2qSzrU?f

| -0-10-8 | 2-3-8 | 5-7-9 | 9-11-4 | 13-1-0 | 19-0-8 | 25-0-0 | 31-2-0 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 2-3-8 | 3-4-1 | 4-3-11 | 3-1-12 | 5-11-8 | 5-11-8 | 6-2-0 |

Scale = 1:57.5




| 2-3-8 | 5-7-9 | 9-11-4 | 13-1-0 | 22-0-4 | 31-2-0 |
|---|---|---|---|---|---|
| 2-3-8 | 3-4-1 | 4-3-11 | 3-1-12 | 8-11-4 | 9-1-12 |

Plate Offsets (X,Y)-- [3:0-6-0,0-6-10], [5:0-6-0,0-2-3], [15:0-2-8,0-2-0]

| 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 | 0.66 | Vert(LL) | -0.25 | 14-15 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.62 | Vert(CT) | -0.55 | 14-15 | >677 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.91 | Horz(CT) | 0.28 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.15 | 14-15 | >999 | 240 | Weight: 148 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x8 SP DSS
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
2-16: 2x4 SPF No.2, 6-13: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-16,9-11: 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-4-13 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-9 max.): 5-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-16.
WEBS 1 Row at midpt 9-11

**REACTIONS.** (size) 11=0-3-8, 2=0-3-8
Max Horz 2=222(LC 8)
Max Uplift 11=-246(LC 5), 2=-133(LC 8)
Max Grav 11=1767(LC 2), 2=1840(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-993/0, 3-4=-4138/368, 4-5=-4436/468, 5-6=-3114/405, 6-8=-3096/407, 8-9=-2181/264
BOT CHORD 3-15=-435/3896, 14-15=-349/2697, 6-14=-442/145, 11-12=-250/1655
WEBS 5-14=-126/766, 12-14=-356/2468, 8-14=-81/585, 8-12=-991/223, 9-12=-28/1053, 9-11=-2169/331, 5-15=-266/1668, 4-15=-1037/282

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=246, 2=133.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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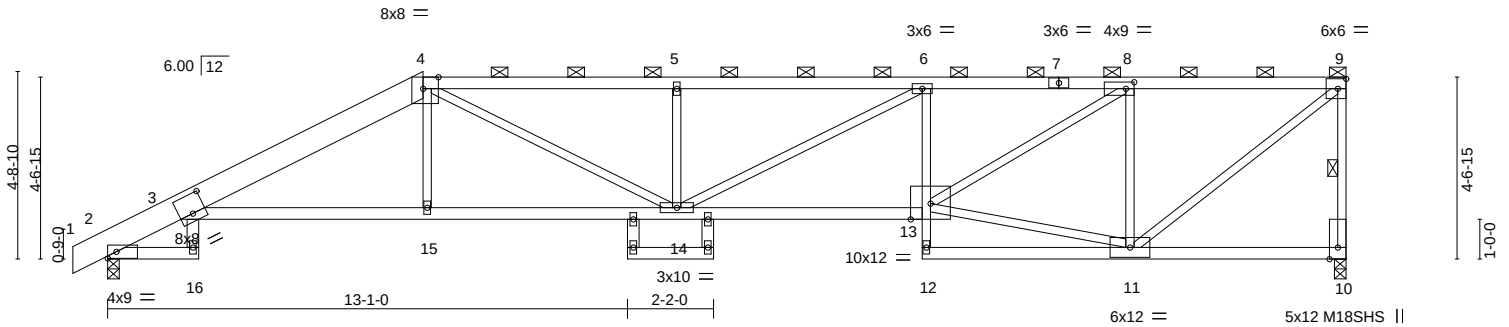
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | D4 | Half Hip | 1 | 1 | I44539515 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:17 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-ZhbcOsjpwLdOqpRamgXPaBgSiCmpwPqxQigbNvzrU?e

| -0-10-8 | 2-3-8 | 7-11-4 | 14-3-14 | 20-6-0 | 25-8-12 | 31-2-0 |
|---|---|---|---|---|---|---|
| 0-10-8 | 2-3-8 | 5-7-12 | 6-4-10 | 6-2-2 | 5-2-12 | 5-5-4 |

Scale = 1:58.0




| 2-3-8 | 7-11-4 | 14-3-14 | 20-6-0 | 25-8-12 | 31-2-0 |
|---|---|---|---|---|---|
| 2-3-8 | 5-7-12 | 6-4-10 | 6-2-2 | 5-2-12 | 5-5-4 |

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

| 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 | 0.68 | Vert(LL) | -0.27 | 13-14 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.54 | Vert(CT) | -0.61 | 13-14 | >611 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.80 | Horz(CT) | 0.35 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.22 | 13-14 | >999 | 240 | Weight: 138 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x8 SP DSS *Except*
4-7: 2x4 SPF 2100F 1.8E, 7-9: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x4 SPF 2100F 1.8E, 6-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-16,17-19,18-20: 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-3-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-2 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-16
9-11-3 oc bracing: 13-14.
WEBS 1 Row at midpt 9-10

**REACTIONS.** (size) 10=0-3-8, 2=0-3-8
Max Horz 2=182(LC 5)
Max Uplift 10=-256(LC 5), 2=-142(LC 5)
Max Grav 10=1699(LC 1), 2=1802(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-976/91, 3-4=-3452/417, 4-5=-4070/580, 5-6=-4069/581, 6-8=-3801/554, 8-9=-1812/282, 9-10=-1649/277
BOT CHORD 3-15=-495/3138, 14-15=-492/3141, 13-14=-630/3835, 6-13=-614/168
WEBS 4-15=0/251, 4-14=-249/1042, 5-14=-577/196, 6-14=-38/267, 11-13=-292/1759, 8-13=-373/2328, 8-11=-1726/363, 9-11=-344/2303

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are MT20 plates unless otherwise indicated.
4) All plates are 2x4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=256, 2=142.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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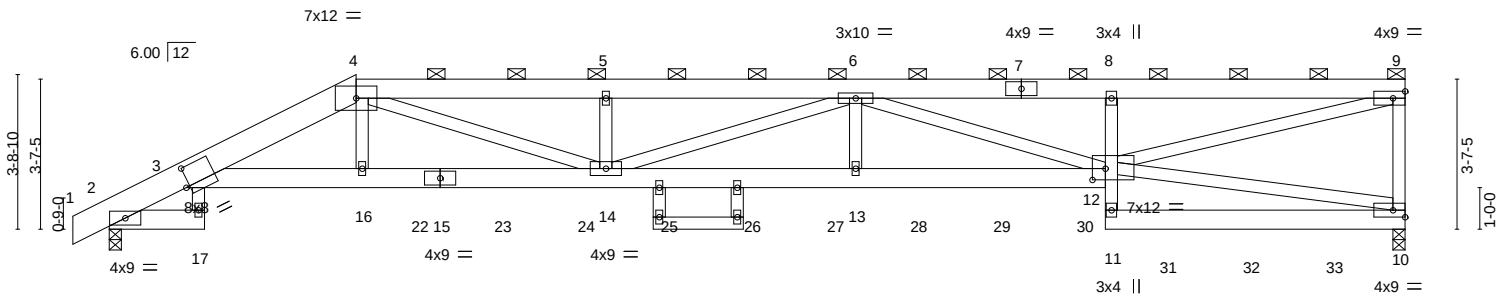
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | D5 | HALF HIP GIRDER | 1 | 3 | I44539516 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:19 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-W4iMpYk4Syt647byu5Ztfclqp?TiOJIEt09iRnzrU?c

| -0-10-8 | 2-3-8 | 5-11-4 | 11-11-5 | 17-11-7 | 23-11-8 | 31-2-0 |
|---|---|---|---|---|---|---|
| 0-10-8 | 2-3-8 | 3-7-12 | 6-0-1 | 6-0-1 | 6-0-1 | 7-2-8 |

Scale = 1:55.4




| 2-3-8 | 5-11-4 | 11-11-5 | 17-11-7 | 23-11-8 | 31-2-0 |
|---|---|---|---|---|---|
| 2-3-8 | 3-7-12 | 6-0-1 | 6-0-1 | 6-0-1 | 7-2-8 |

Plate Offsets (X,Y)-- [3:0-1-2,0-5-10], [12:0-3-12,0-3-4]

| 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 | 0.52 | Vert(LL) | -0.24 | 13-14 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.39 | Vert(CT) | -0.51 | 13-14 | >721 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.81 | Horz(CT) | 0.21 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.16 | 13-14 | >999 | 240 | Weight: 621 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x6 SP 2400F 2.0E *Except* 1-4: 2x8 SP DSS
BOT CHORD 2x6 SP 2400F 2.0E *Except* 8-11,18-19: 2x4 SPF No.2
WEBS 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-17.

**REACTIONS.** (size) 10=0-3-8, 2=0-3-8
Max Horz 2=107(LC 5)
Max Uplift 10=-355(LC 5), 2=-331(LC 5)
Max Grav 10=3833(LC 1), 2=3751(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2060/201, 3-4=-10054/1071, 4-5=-13404/1314, 5-6=-13404/1314, 6-8=-9861/934, 8-9=-9554/909, 9-10=-3281/340
BOT CHORD 3-16=-1057/9361, 14-16=-1071/9472, 13-14=-1350/13842, 12-13=-1350/13842, 11-12=-16/517, 8-12=-576/114, 10-11=-54/677
WEBS 3-17=-22/310, 4-16=-203/1605, 4-14=-348/4279, 5-14=-442/95, 6-14=-537/35, 6-13=-36/1022, 6-12=-4218/399, 10-12=-535/65, 9-12=-959/9851

**NOTES-**

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=355, 2=331.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.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Continued on page 2

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**NOTES-**

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 742 lb down and 199 lb up at 5-11-4, 285 lb down and 46 lb up at 7-5-4, 285 lb down and 46 lb up at 9-5-4, 285 lb down and 46 lb up at 11-5-4, 285 lb down and 46 lb up at 15-5-4, 285 lb down and 46 lb up at 17-5-4, 285 lb down and 46 lb up at 19-5-4, 285 lb down and 46 lb up at 21-5-4, 285 lb down and 46 lb up at 23-5-4, 285 lb down and 44 lb up at 25-5-4, 285 lb down and 44 lb up at 27-5-4, and 285 lb down and 44 lb up at 29-5-4, and 216 lb down and 9 lb up at 13-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
13) Filler applied to ply: 1(Front)

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-90, 4-9=-90, 2-17=-20, 3-12=-20, 10-11=-20
   Concentrated Loads (lb)
   Vert: 16=-742(B) 22=-285(B) 23=-285(B) 24=-285(B) 25=-215(B) 26=-285(B) 27=-285(B) 28=-285(B) 29=-285(B) 30=-285(B) 31=-285(B) 32=-285(B) 33=-285(B)


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| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | E1 | Hip Girder | 1 | 1 | I44539517 |
| | | | | | Job Reference (optional) |

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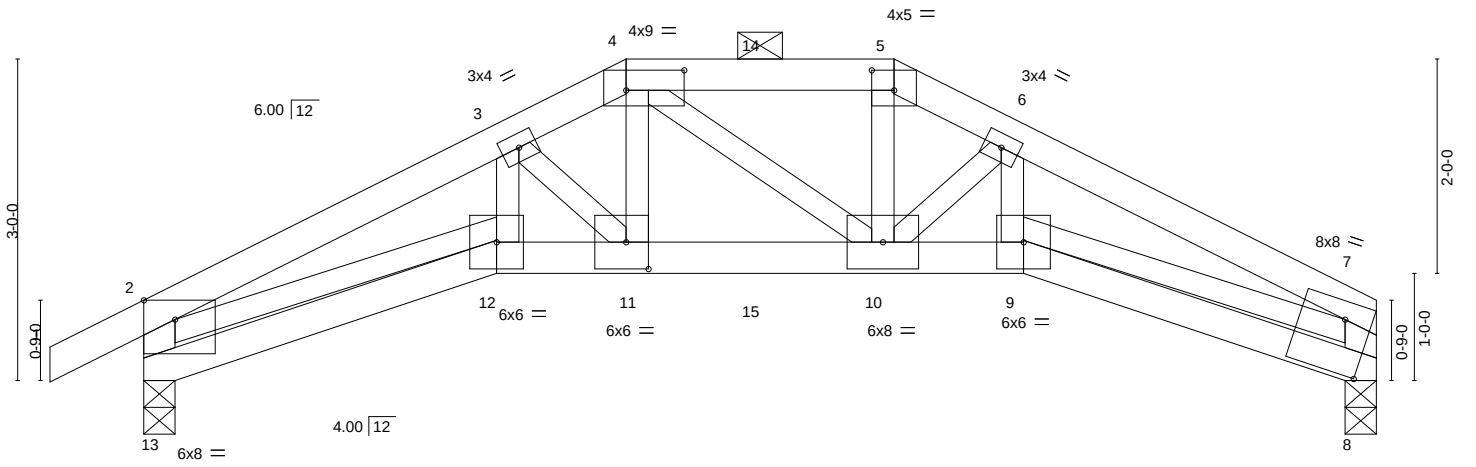
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-STq7EDmKza8qJQlL?WcLk1qAEp4YsEjXLJeoWgzrU?a

| -0-10-8 | 3-3-8 | 4-6-0 | 7-0-0 | 8-2-8 | 11-6-0 |
|---|---|---|---|---|---|
| 0-10-8 | 3-3-8 | 1-2-8 | 2-6-0 | 1-2-8 | 3-3-8 |

Scale = 1:21.5




| 3-3-8 | 4-6-0 | 7-0-0 | 8-2-8 | 11-6-0 |
|---|---|---|---|---|
| 3-3-8 | 1-2-8 | 2-6-0 | 1-2-8 | 3-3-8 |

Plate Offsets (X,Y)-- [4:0-6-8,0-2-4], [5:0-2-8,0-2-4], [7:0-3-0,0-6-0], [11:0-2-8,0-3-0], [13:0-3-8,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 | 0.52 | Vert(LL) | -0.07 | 11 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.75 | Vert(CT) | -0.16 | 10-11 | >846 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.75 | Horz(CT) | 0.12 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.06 | 11 | >999 | 240 | Weight: 43 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13,7-8: 2x4 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-1-10 oc purlins, except end verticals, and 2-0-0 oc purlins (3-8-15 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 8-6-0 oc bracing.

**REACTIONS.** (size) 13=0-3-8, 8=0-3-8
Max Horz 13=59(LC 5)
Max Uplift 13=-227(LC 8), 8=-204(LC 9)
Max Grav 13=1179(LC 1), 8=1082(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2849/568, 3-4=-2377/510, 4-5=-2209/467, 5-6=-2409/505, 6-7=-2886/557, 2-13=-1237/277, 7-8=-1119/238
BOT CHORD 12-13=-127/429, 11-12=-484/2418, 10-11=-414/2186, 9-10=-460/2466, 8-9=-78/368
WEBS 3-12=-55/402, 3-11=-376/106, 4-11=-115/680, 5-10=-105/727, 6-10=-415/111, 6-9=-41/385, 2-12=-375/2067, 7-9=-396/2172

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 13, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=227, 8=204.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 124 lb down and 89 lb up at 4-6-0, and 131 lb down and 89 lb up at 5-9-0, and 124 lb down and 89 lb up at 7-0-0 on top chord, and 322 lb down and 83 lb up at 4-6-0, and 44 lb down at 5-9-0, and 338 lb down and 87 lb up at 6-11-4 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).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**LOAD CASE(S)** Standard

Continued on page 2

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**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-90, 2-4=-90, 4-5=-90, 5-7=-90, 12-13=-20, 9-12=-20, 8-9=-20
   Concentrated Loads (lb)
   Vert: 4=-80(F) 5=-80(F) 11=-322(F) 10=-338(F) 14=-80(F) 15=-35(F)


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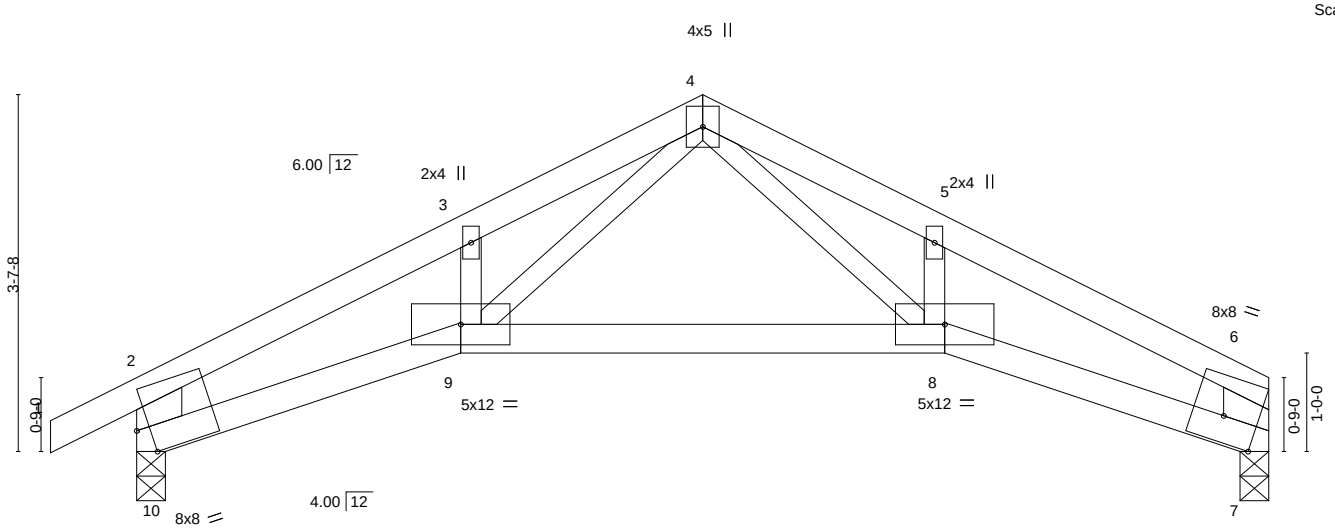
| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | E2 | Roof Special | 1 | 1 | I44539518 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:22 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-wfOVRZnyktGgxaKXZE7aHENFhDPFbqEgZzOM26zrU?Z

| -0-10-8 | 3-3-8 | 5-9-0 | 8-2-8 | 11-6-0 |
|---|---|---|---|---|
| 0-10-8 | 3-3-8 | 2-5-8 | 2-5-8 | 3-3-8 |

Scale = 1:23.4




| 3-3-8 | 8-2-8 | 11-6-0 |
|---|---|---|
| 3-3-8 | 4-11-0 | 3-3-8 |

Plate Offsets (X,Y)-- [6:0-4-3,Edge], [10:0-1-10,Edge]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.92 | Vert(LL) | -0.11 | 8-9 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.78 | Vert(CT) | -0.28 | 8-9 | >481 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.15 | Horz(CT) | 0.15 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 8-9 | >999 | 240 | Weight: 38 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-10,6-7: 2x6 SP DSS

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

**REACTIONS.** (size) 10=0-3-8, 7=0-3-8
Max Horz 10=68(LC 5)
Max Uplift 10=-86(LC 8), 7=-60(LC 9)
Max Grav 10=712(LC 1), 7=602(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1281/131, 3-4=-1121/198, 4-5=-1125/180, 5-6=-1261/107, 2-10=-942/135, 6-7=-800/92
BOT CHORD 9-10=-118/1052, 8-9=-30/704, 7-8=-68/1040
WEBS 4-8=-115/447, 4-9=-122/436

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Bearing at joint(s) 10, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.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| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | E3 | Half Hip Girder | 1 | 3 | I44539519 |
| | | | | | Job Reference (optional) |

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ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-OrytevoaVBOXYkvk7xepqSwUPcqxKBmpod7vaYzrU?Y

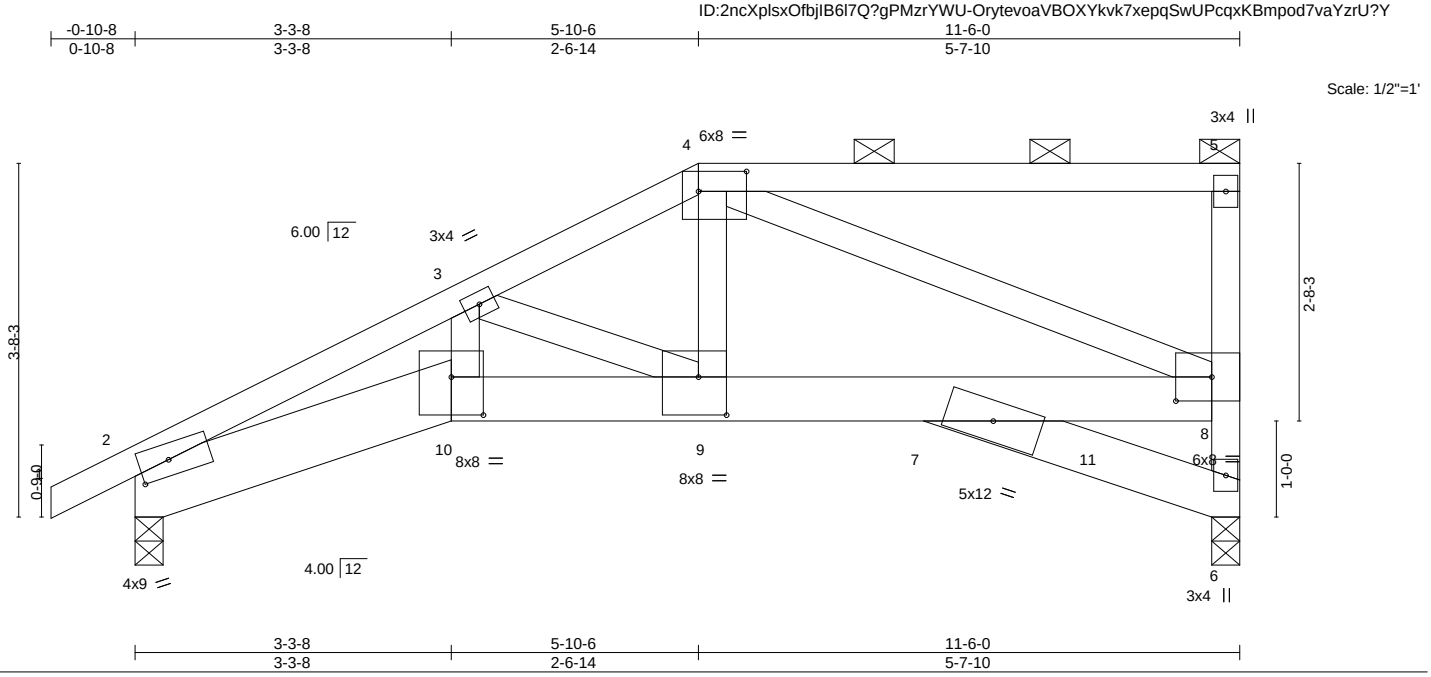


Plate Offsets (X,Y)-- [2:0-3-12,0-2-0], [4:0-6-0,0-2-8], [8:0-4-8,0-3-0], [9:0-3-8,0-4-12], [10:0-4-0,0-4-12]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.67 | Vert(LL) | -0.06 | 7-9 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.50 | Vert(CT) | -0.14 | 7-9 | >959 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.52 | Horz(CT) | 0.10 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.04 | 7-9 | >999 | 240 | Weight: 205 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except*
2-10: 2x8 SP DSS
WEBS 2x4 SPF No.2

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

**REACTIONS.** (size) 6=0-3-8, 2=0-3-8
Max Horz 2=111(LC 7)
Max Uplift 6=-216(LC 5), 2=-115(LC 8)
Max Grav 6=5304(LC 1), 2=3206(LC 1)

PLY-TO-PLY CONNECTION REQUIRES THAT AN APPROVED FACE MOUNT HANGER (SPECIFIED BY OTHERS) IS REQUIRED FOR LOADS REPORTED IN NOTES. FACE MOUNT HANGER SHALL BE ATTACHED WITH A MINIMUM OF 0.148"x 3" NAILS PER HANGER MANUFACTURER SPECIFICATIONS.

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-9771/365, 3-4=-8203/310, 4-5=-378/39, 6-8=-5025/226, 5-8=-272/46
BOT CHORD 2-10=-410/8504, 9-10=-380/7971, 7-9=-341/7728, 7-8=-328/7234, 6-7=-15/411
WEBS 3-10=-60/1602, 3-9=-712/76, 4-9=-208/6393, 4-8=-7969/313

**NOTES-**
1) N/A
2) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 3 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
3) 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.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Bearing at joint(s) 6, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=216, 2=115.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.


**LOAD CASE(S)** Standard

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Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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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: 1-4=-90, 4-5=-90, 2-10=-20, 7-10=-20, 6-7=-20
   Concentrated Loads (lb)
   Vert: 9=-3829(B) 7=-1678(B) 11=-1678(B)


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | G1 | Hip Girder | 1 | 1 | I44539520 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:24 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-s2WFsFoCGVWOAuTwge92MfSbx03C3bMz1HtT7?zrU?X

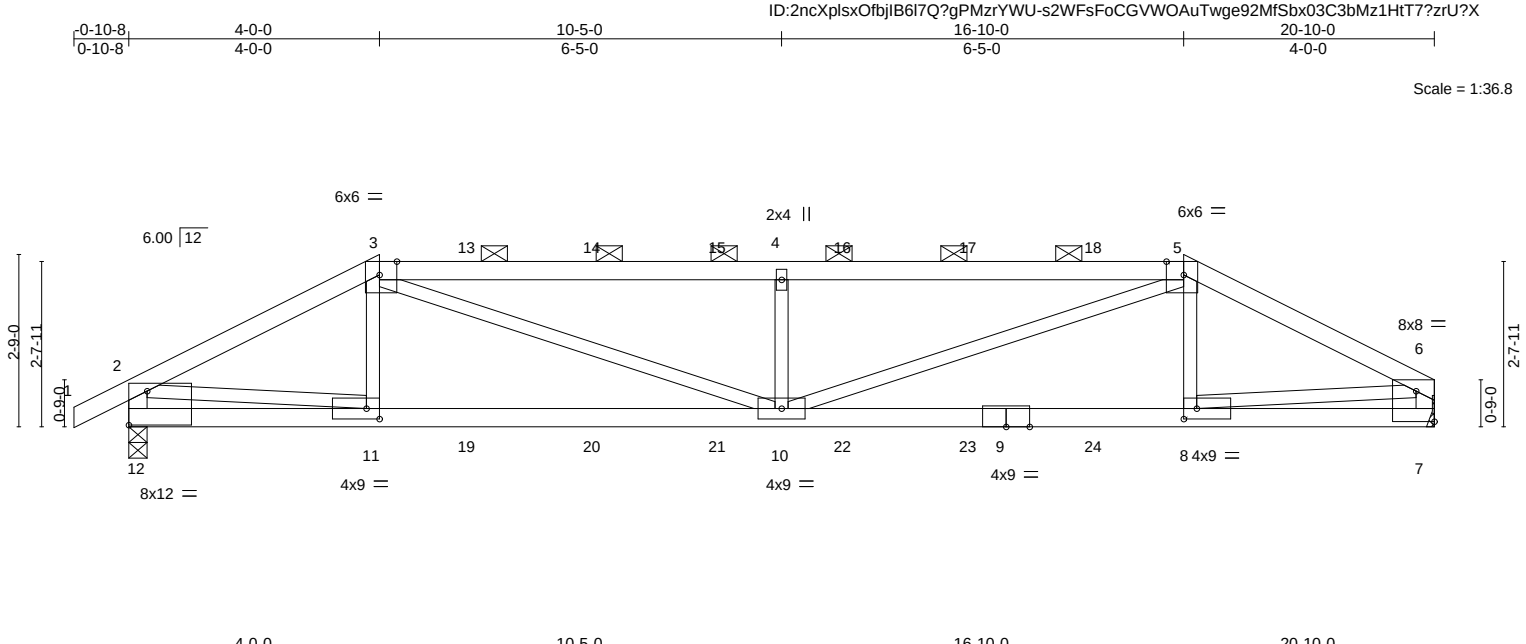


Plate Offsets (X,Y)-- [3:0-3-5,Edge], [5:0-3-5,Edge], [6:Edge,0-5-13], [8:0-2-8,0-2-0], [11:0-2-8,0-2-0], [12:Edge,0-6-8]

| 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 | 0.94 | Vert(LL) | -0.15 | 10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.88 | Vert(CT) | -0.34 | 8-10 | >715 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.75 | Horz(CT) | 0.06 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.14 | 10 | >999 | 240 | Weight: 72 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2 *Except*
3-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-12,6-7: 2x4 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-2-4 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-5 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 8-4-11 oc bracing.

**REACTIONS.** (size) 12=0-3-8, 7=Mechanical
Max Horz 12=54(LC 26)
Max Uplift 12=-318(LC 8), 7=-294(LC 9)
Max Grav 12=1813(LC 1), 7=1717(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2839/532, 3-4=-4047/816, 4-5=-4047/816, 5-6=-2847/531, 2-12=-1776/326, 6-7=-1679/302
BOT CHORD 11-12=-121/362, 10-11=-484/2474, 8-10=-453/2490, 7-8=-82/320
WEBS 3-10=-373/1718, 4-10=-938/371, 5-10=-373/1707, 2-11=-417/2137, 6-8=-420/2194

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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) 12=318, 7=294.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 111 lb down and 77 lb up at 4-0-0, 119 lb down and 77 lb up at 5-5-0, 119 lb down and 77 lb up at 7-5-0, 119 lb down and 77 lb up at 9-5-0, 119 lb down and 77 lb up at 11-5-0, 119 lb down and 77 lb up at 13-5-0, and 119 lb down and 77 lb up at 15-5-0, and 111 lb down and 77 lb up at 16-10-0 on top chord, and 272 lb down and 77 lb up at 4-0-0, 34 lb down at 5-5-0, 34 lb down at 7-5-0, 34 lb down at 9-5-0, 34 lb down at 11-5-0, 34 lb down at 13-5-0, and 34 lb down at 15-5-0, and 272 lb down and 77 lb up at 16-9-4 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).


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**LOAD CASE(S)** Standard

Continued on page 2

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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=-90, 2-3=-90, 3-5=-90, 5-6=-90, 7-12=-20
   Concentrated Loads (lb)
   Vert: 3=-59(F) 5=-59(F) 11=-272(F) 8=-272(F) 13=-59(F) 14=-59(F) 15=-59(F) 16=-59(F) 17=-59(F) 18=-59(F) 19=-28(F) 20=-28(F) 21=-28(F) 22=-28(F) 23=-28(F) 24=-28(F)


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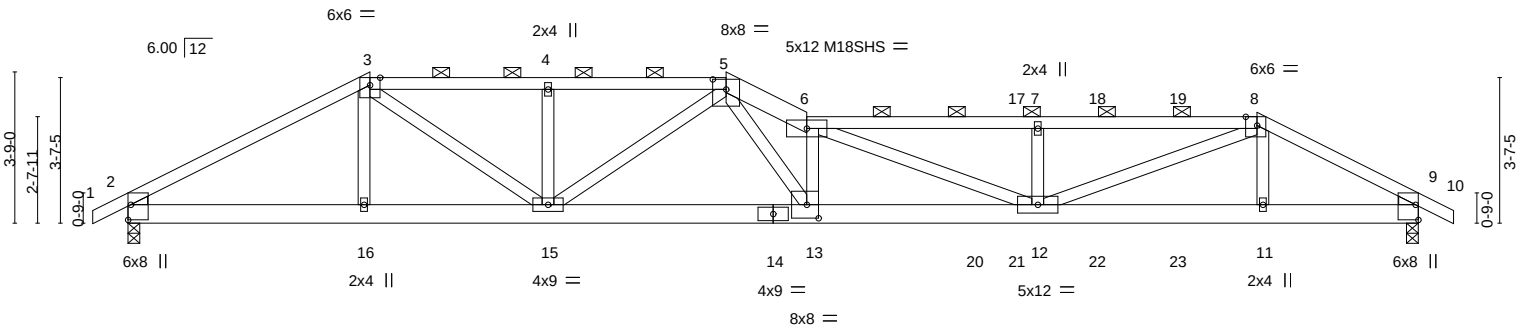
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | G2 | ROOF SPECIAL GIRDER | 1 | 2 | I44539521 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:26 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-pQd0HxqTo6m6PCdIo3BWR4Y0RqprXUJGUbMZBtzrU?V

-0-10-8 | 6-0-0 | 10-5-0 | 14-10-0 | 16-10-0 | 22-6-12 | 28-0-0 | 32-0-0 | 32-10-8
0-10-8 | 6-0-0 | 4-5-0 | 4-5-0 | 2-0-0 | 5-8-12 | 5-5-4 | 4-0-0 | 0-10-8

Scale = 1:57.1




6-0-0 | 10-5-0 | 14-10-0 | 16-10-0 | 22-6-12 | 28-0-0 | 32-0-0
6-0-0 | 4-5-0 | 4-5-0 | 2-0-0 | 5-8-12 | 5-5-4 | 4-0-0

Plate Offsets (X,Y)-- [2:Edge,0-0-13], [5:0-4-0,0-3-0], [8:0-3-6,Edge], [9:Edge,0-0-13], [13:0-3-8,0-4-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.62 | Vert(LL) | -0.26 | 12-13 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.61 | Vert(CT) | -0.57 | 12-13 | >667 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.79 | Horz(CT) | 0.07 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.19 | 12-13 | >999 | 240 | Weight: 319 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2, 6-8: 2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SP DSS
WEBS 2x4 SPF No.2
WEDGE
Left: 2x3 SPF No.2 , Right: 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins, except 2-0-0 oc purlins (5-0-0 max.): 3-5, 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 9=0-3-8
Max Horz 2=-39(LC 6)
Max Uplift 2=-122(LC 5), 9=-372(LC 9)
Max Grav 2=2303(LC 1), 9=3019(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4034/282, 3-4=-5223/438, 4-5=-5220/437, 5-6=-11023/1109, 6-7=-9068/1123, 7-8=-9071/1124, 8-9=-5379/681
BOT CHORD 2-16=-231/3393, 15-16=-233/3385, 13-15=-583/6348, 12-13=-929/9571, 11-12=-544/4519, 9-11=-542/4541
WEBS 3-15=-222/2364, 4-15=-500/88, 5-15=-1439/282, 5-13=-722/6422, 6-13=-4919/606, 6-12=-1044/494, 7-12=-774/231, 8-12=-606/4944, 8-11=0/388

**NOTES-**
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x6 - 2 rows staggered at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=122, 9=372.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Continued on page 2

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

January 27,2021

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Chesterfield, MO 63017

**NOTES-**

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 109 lb down and 82 lb up at 22-0-0, 109 lb down and 82 lb up at 24-0-0, and 109 lb down and 82 lb up at 26-0-0, and 109 lb down and 82 lb up at 28-0-0 on top chord, and 1061 lb down and 224 lb up at 20-11-9, 34 lb down at 22-0-0, 34 lb down at 24-0-0, and 34 lb down at 26-0-0, and 272 lb down and 77 lb up at 27-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-90, 3-5=-90, 5-6=-90, 6-8=-90, 8-10=-90, 2-9=-20
   Concentrated Loads (lb)
   Vert: 8=-59(F) 11=-272(F) 17=-59(F) 18=-59(F) 19=-59(F) 20=-1061(F) 21=-28(F) 22=-28(F) 23=-28(F)


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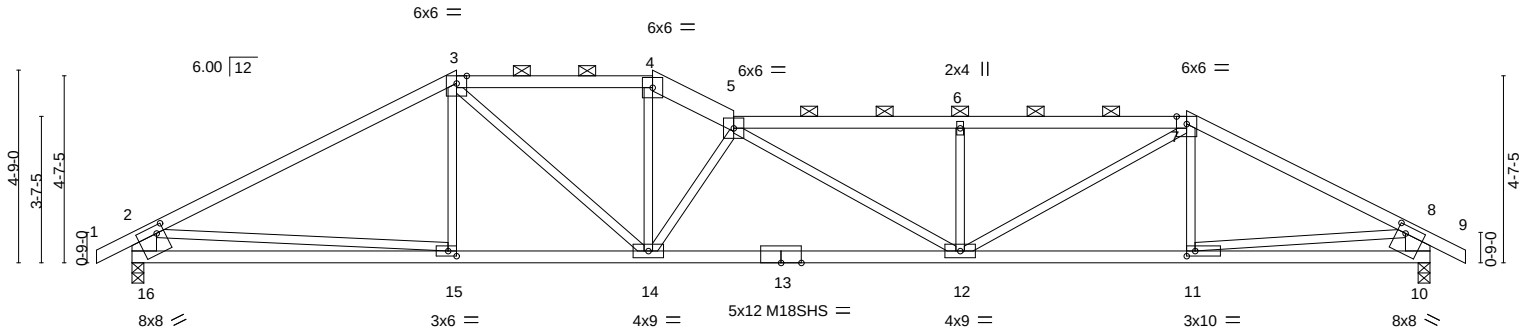
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | G3 | Roof Special | 1 | 1 | I44539522 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:27 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-HdBOUHr5ZQuz1LCVMnil_I46uEAOGy1PjF57jKzrU?U

| -0-10-8 | 8-0-0 | 12-10-0 | 14-10-0 | 20-5-0 | 26-0-0 | 32-0-0 | 32-10-8 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 8-0-0 | 4-10-0 | 2-0-0 | 5-7-0 | 5-7-0 | 6-0-0 | 0-10-8 |

Scale = 1:56.8




| 8-0-0 | 12-10-0 | 14-10-0 | 20-5-0 | 26-0-0 | 32-0-0 |
|---|---|---|---|---|---|
| 8-0-0 | 4-10-0 | 2-0-0 | 5-7-0 | 5-7-0 | 6-0-0 |

Plate Offsets (X,Y)-- [10:0-2-8,0-2-4], [11:0-2-8,0-1-8], [15:0-2-8,0-1-8], [16:0-2-4,0-2-4]

| 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 | 0.96 | Vert(LL) | -0.20 | 12-14 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.53 | Vert(CT) | -0.51 | 12-14 | >744 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.76 | Horz(CT) | 0.09 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.14 | 12-14 | >999 | 240 | Weight: 122 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x4 SPF 2100F 1.8E, 4-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-16,8-10: 2x8 SP DSS

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-5-1 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-4, 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 16=0-3-8, 10=0-3-8
Max Horz 16=-80(LC 6)
Max Uplift 16=-128(LC 8), 10=-242(LC 9)
Max Grav 16=1833(LC 1), 10=1833(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2771/229, 3-4=-3010/320, 4-5=-3367/341, 5-6=-3840/480, 6-7=-3843/481, 7-8=-2804/346, 2-16=-1752/176, 8-10=-1765/274
BOT CHORD 15-16=-315/1083, 14-15=-182/2325, 12-14=-368/4029, 11-12=-225/2402, 10-11=-157/662
WEBS 3-14=-144/1025, 4-14=-105/1155, 5-14=-1965/326, 5-12=-344/58, 6-12=-618/192, 7-12=-219/1680, 2-15=-47/1414, 8-11=-183/1747

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=128, 10=242.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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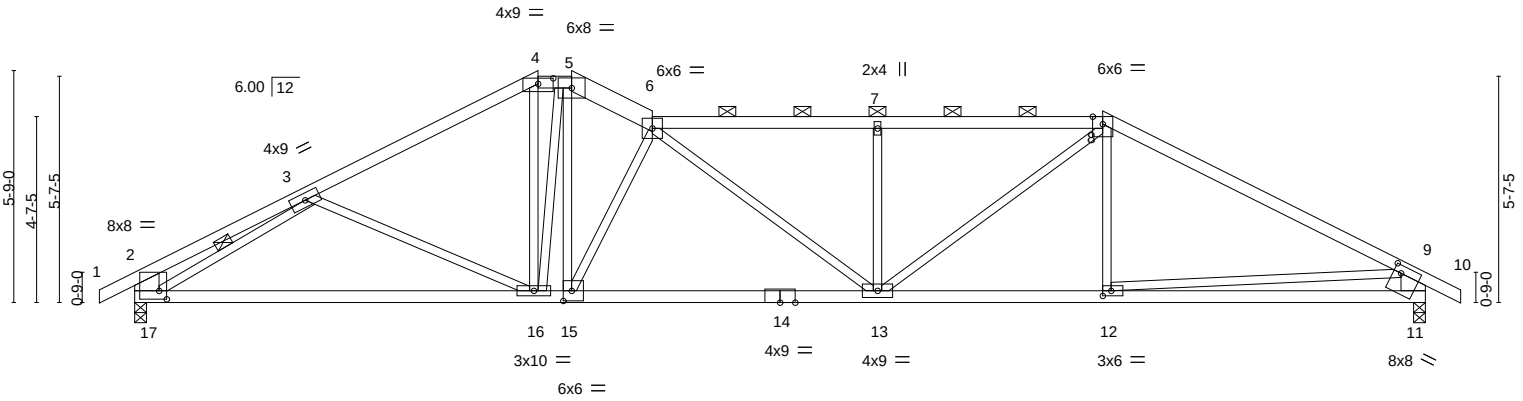
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | G4 | Roof Special | 1 | 1 | I44539523 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:31 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-9ORvKeubdeOPWzWGbdnh88FoprRsChl?et3Ks5zrU?Q

-0-10-8 4-4-3 10-0-0 10-10-0 12-10-0 18-5-0 24-0-0 32-0-0 32-10-8
0-10-8 4-4-3 5-7-13 0-10-0 2-0-0 5-7-0 5-7-0 8-0-0 0-10-8

Scale = 1:57.1




10-0-0 10-10-0 12-10-0 18-5-0 24-0-0 32-0-0
10-0-0 0-10-0 2-0-0 5-7-0 5-7-0 8-0-0

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

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.83 | Vert(LL) | -0.20 | 16-17 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.94 | Vert(CT) | -0.45 | 13-15 | >828 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.97 | Horz(CT) | 0.11 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.13 | 13-15 | >999 | 240 | Weight: 131 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2, 8-10: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-17,9-11: 2x8 SP DSS

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-6-7 max.): 4-5, 6-8.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 3-17

**REACTIONS.** (size) 17=0-3-8, 11=0-3-8
Max Horz 17=-93(LC 6)
Max Uplift 17=-151(LC 8), 11=-252(LC 9)
Max Grav 17=1833(LC 1), 11=1833(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-547/10, 3-4=-2572/276, 4-5=-2184/263, 5-6=-2551/306, 6-7=-3128/442, 7-8=-3130/443, 8-9=-2774/357, 2-17=-497/70, 9-11=-1755/297
BOT CHORD 16-17=-231/2325, 15-16=-109/2259, 13-15=-220/2989, 12-13=-207/2328, 11-12=-285/1051
WEBS 4-16=-57/753, 5-16=-509/143, 5-15=-277/1479, 6-15=-1738/325, 6-13=-73/294, 7-13=-595/190, 8-13=-151/1016, 3-17=-2281/275, 9-12=-133/1282

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=151, 11=252.
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.


January 27,2021

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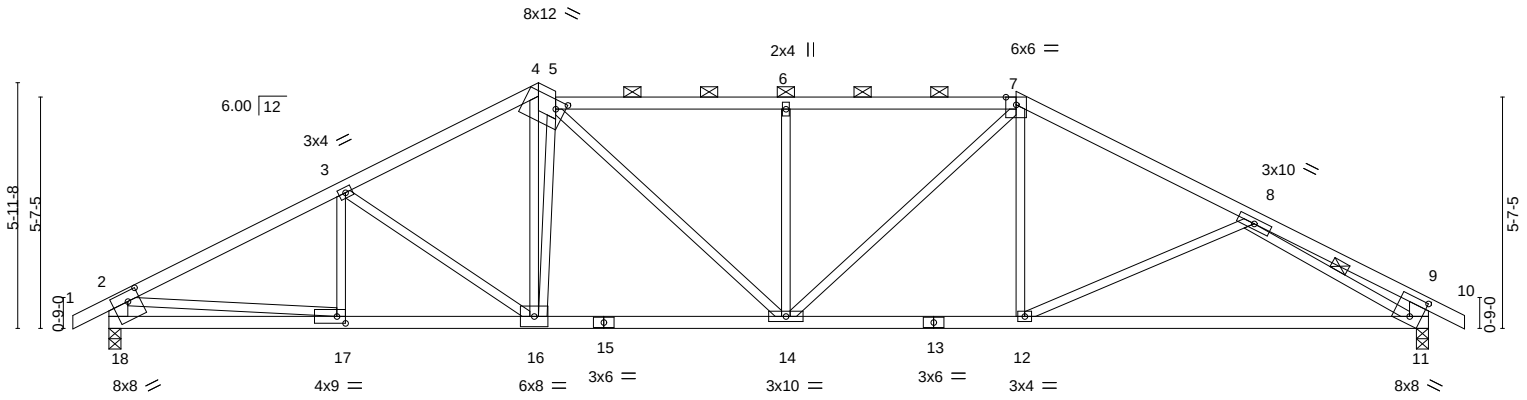
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | G5 | Roof Special | 1 | 1 | I44539524 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:33 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-5mYflKvs9Ge7lGffi1p9EZK79e87gd?l5BYRxzzrU?O

| -0-10-8 | 5-7-9 | 10-5-0 | 10-10-0 | 16-5-0 | 22-0-0 | 27-7-13 | 32-0-0 | 32-10-8 |
|---|---|---|---|---|---|---|---|---|
| 0-10-8 | 5-7-9 | 4-9-7 | 0-5-0 | 5-7-0 | 5-7-0 | 5-7-13 | 4-4-3 | 0-10-8 |

Scale = 1:55.9




| 5-7-9 | 10-5-0 | 10-10-0 | 16-5-0 | 22-0-0 | 32-0-0 |
|---|---|---|---|---|---|
| 5-7-9 | 4-9-7 | 0-5-0 | 5-7-0 | 5-7-0 | 10-0-0 |

Plate Offsets (X,Y)-- [4:0-2-11,0-2-9], [11:0-3-5,0-5-12], [17:0-2-8,0-2-0], [18:0-3-8,0-2-12]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.91 | Vert(LL) | -0.24 | 11-12 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.89 | Vert(CT) | -0.52 | 11-12 | >730 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.85 | Horz(CT) | 0.10 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.11 | 14 | >999 | 240 | Weight: 130 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2 *Except* 4-5: 2x8 SP DSS
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 2-18,9-11: 2x6 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-8-12 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 9-11-10 oc bracing.
WEBS 1 Row at midpt 8-11

**REACTIONS.** (size) 18=0-3-8, 11=0-3-8
Max Horz 18=94(LC 7)
Max Uplift 18=-155(LC 8), 11=-253(LC 9)
Max Grav 18=1834(LC 1), 11=1834(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2815/255, 3-4=-2522/312, 4-5=-2250/311, 5-6=-2620/403, 6-7=-2624/405, 7-8=-2586/360, 8-9=-624/34, 2-18=-1764/186, 9-11=-525/84
BOT CHORD 17-18=-171/621, 16-17=-178/2407, 14-16=-142/2291, 12-14=-158/2212, 11-12=-322/2376
WEBS 3-16=-360/148, 4-16=-218/1540, 5-14=-127/572, 6-14=-611/191, 7-14=-145/567, 7-12=0/353, 2-17=-108/1796, 8-11=-2247/414, 5-16=-1305/285

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=155, 11=253.
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.


January 27,2021

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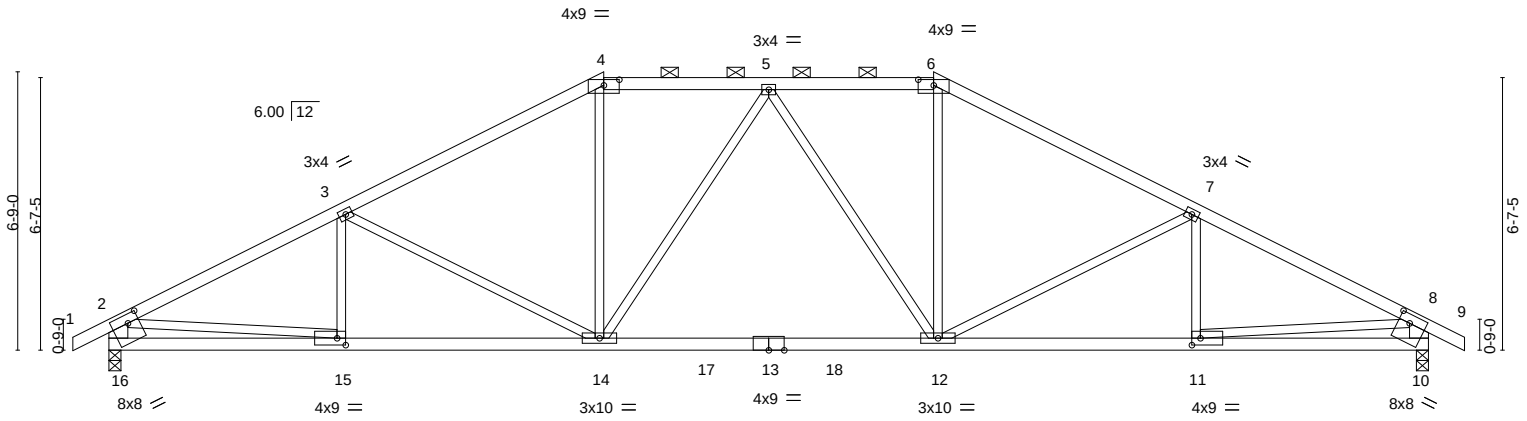
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | G6A | Hip | 1 | 1 | I44539525 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:34 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-az61ygwUwZmzNQErGlKOmmtHx2TZP7pRKrl_TQzrU?N

| -0-10-8 | 5-7-10 | 12-0-0 | 16-0-0 | 20-0-0 | 26-4-6 | 32-0-0 | 32-10-8 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 5-7-10 | 6-4-6 | 4-0-0 | 4-0-0 | 6-4-6 | 5-7-10 | 0-10-8 |

Scale = 1:55.9




| 5-7-10 | 12-0-0 | 20-0-0 | 26-4-6 | 32-0-0 |
|---|---|---|---|---|
| 5-7-10 | 6-4-6 | 8-0-0 | 6-4-6 | 5-7-10 |

Plate Offsets (X,Y)-- [4:0-4-8,0-1-11], [6:0-4-8,0-1-11], [10:0-3-4,0-2-8], [11:0-2-8,0-2-0], [15:0-2-8,0-2-0], [16:0-3-4,0-2-8]

| 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 | 0.97 | Vert(LL) | -0.24 | 12-14 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.94 | Vert(CT) | -0.45 | 12-14 | >841 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.69 | Horz(CT) | 0.09 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 14-15 | >999 | 240 | Weight: 126 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 2-16,8-10: 2x6 SPF No.2 |

**BRACING-**

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

**REACTIONS.** (size) 16=0-3-8, 10=0-3-8
Max Horz 16=-103(LC 6)
Max Uplift 16=-170(LC 8), 10=-170(LC 9)
Max Grav 16=1883(LC 2), 10=1883(LC 2)

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

| | |
|---|---|
| TOP CHORD | 2-3=-2939/236, 3-4=-2504/188, 4-5=-2136/212, 5-6=-2136/212, 6-7=-2504/188, 7-8=-2939/236, 2-16=-1775/199, 8-10=-1775/199 |
| BOT CHORD | 15-16=-159/586, 14-15=-230/2544, 12-14=-84/2247, 11-12=-136/2544, 10-11=-73/544 |
| WEBS | 3-14=-491/196, 4-14=0/684, 5-12=-383/125, 6-12=0/684, 7-12=-491/196, 2-15=-72/2011, 8-11=-64/2011, 5-14=-383/125 |

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=170, 10=170.
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.


January 27,2021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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | G7 | Hip | 1 | 1 | I44539526 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:35 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-29gQA0x6gtuq?ap1qSsdJ_QTdStF8VdaZV1Y?szrU?M

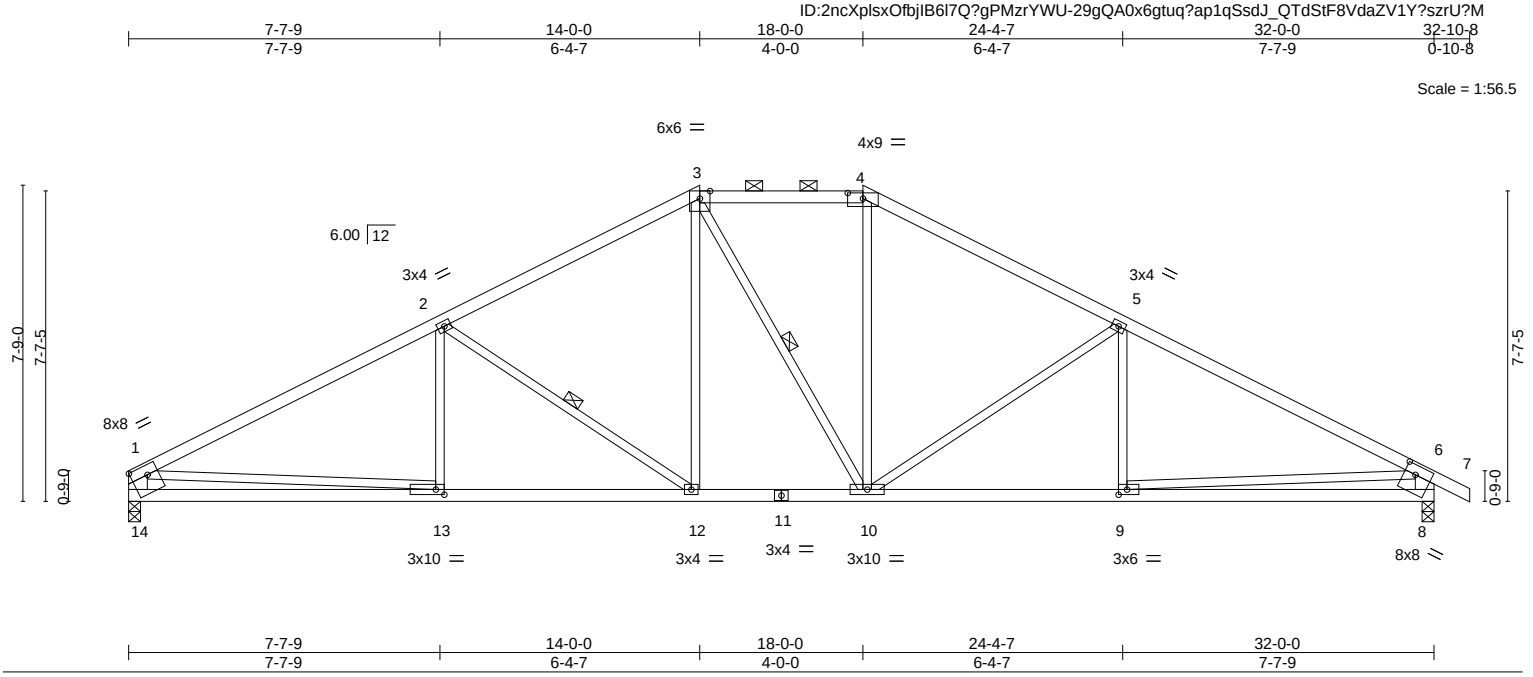


Plate Offsets (X,Y)-- [1:Edge,0-2-12], [4:0-4-8,0-1-11], [8:0-3-4,0-2-12], [9:0-2-8,0-1-8], [13:0-2-8,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.91 | Vert(LL) | -0.11 | 12-13 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.66 | Vert(CT) | -0.25 | 12-13 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.97 | Horz(CT) | 0.08 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 12-13 | >999 | 240 | Weight: 128 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except* |
| | 1-3: 2x4 SPF 2100F 1.8E |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* |
| | 1-14,6-8: 2x6 SP DSS |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-4 max.): 3-4. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 1 Row at midpt 2-12, 3-10 |

**REACTIONS.** (size) 14=0-3-8, 8=0-3-8
Max Horz 14=-121(LC 13)
Max Uplift 14=-162(LC 8), 8=-187(LC 9)
Max Grav 14=1733(LC 1), 8=1836(LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-2=-2843/254, 2-3=-2205/222, 3-4=-1843/238, 4-5=-2203/221, 5-6=-2837/253, 1-14=-1654/203, 6-8=-1758/229 |
| BOT CHORD | 13-14=-200/670, 12-13=-239/2418, 10-12=-58/1840, 9-10=-123/2399, 8-9=-199/893 |
| WEBS | 2-12=-714/218, 3-12=-65/501, 4-10=-35/474, 5-10=-691/211, 1-13=-39/1752, 6-9=0/1510 |

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=162, 8=187.
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.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | G8 | Common | 4 | 1 | I44539527 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:36 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-WLEoNMykRB1hckODNANsrBygLsBJt0Hkn9n5YIzrU?L

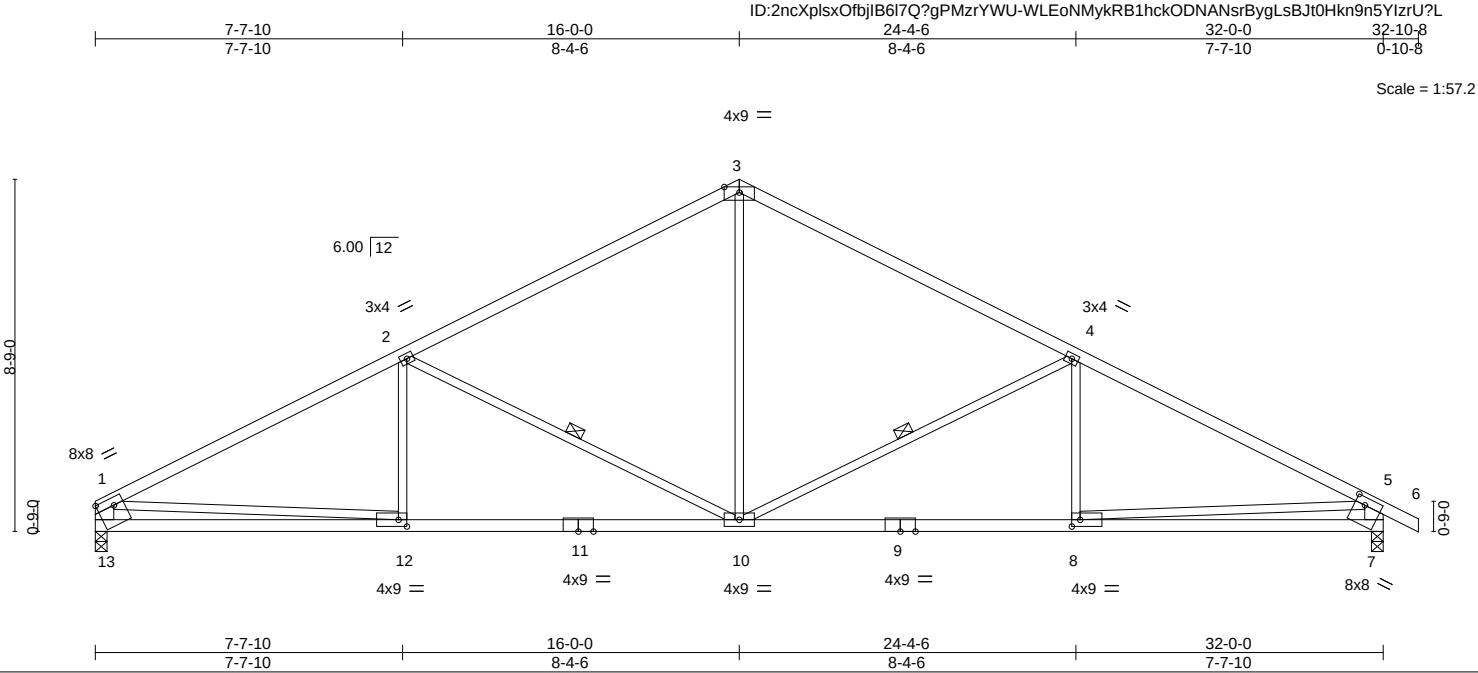


Plate Offsets (X,Y)-- [1:Edge,0-2-4], [7:0-3-0,0-2-4], [8:0-2-8,0-2-0], [12:0-2-8,0-2-0]

| 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 | 0.78 | Vert(LL) | -0.11 | 10-12 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.79 | Vert(CT) | -0.30 | 10-12 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.76 | Horz(CT) | 0.08 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.08 | 10-12 | >999 | 240 | Weight: 120 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF 2100F 1.8E |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 1-13,5-7: 2x6 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 1 Row at midpt 4-10, 2-10 |

**REACTIONS.** (size) 13=0-3-8, 7=0-3-8
Max Horz 13=-139(LC 13)
Max Uplift 13=-176(LC 8), 7=-201(LC 9)
Max Grav 13=1733(LC 1), 7=1836(LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-2=-2871/290, 2-3=-2047/253, 3-4=-2045/253, 4-5=-2866/289, 1-13=-1656/214, 5-7=-1760/240 |
| BOT CHORD | 12-13=-200/617, 10-12=-294/2451, 8-10=-160/2435, 7-8=-155/808 |
| WEBS | 3-10=-41/969, 4-10=-909/268, 2-10=-926/273, 1-12=-94/1843, 5-8=-29/1632 |

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=176, 7=201.
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.


January 27,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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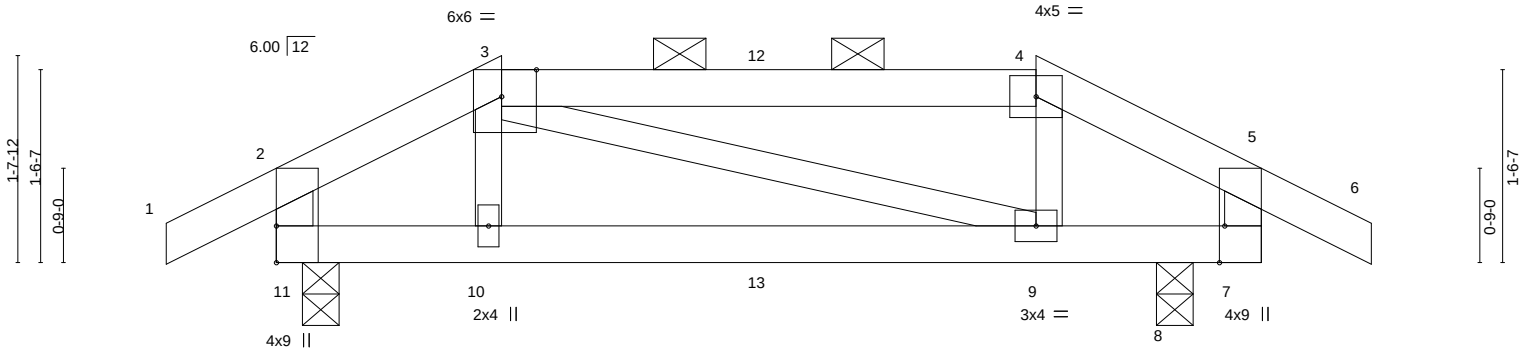
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | H1 | Hip Girder | 1 | 1 | I44539528 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:37 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-_YoAaiyMCU9YEuzQxtu5OPVyMGc0cdjt0pWf4lzrU?K

-0-10-8 | 1-9-8 | 6-0-8 | 7-10-0 | 8-8-8
0-10-8 | 1-9-8 | 4-3-0 | 1-9-8 | 0-10-8

Scale = 1:18.3




0-2-8 | 1-9-8 | 6-0-8 | 7-3-8 | 7-10-0
0-2-8 | 1-7-0 | 4-3-0 | 1-3-0 | 0-6-8

Plate Offsets (X,Y)-- [3:0-3-5,Edge], [7:0-3-8,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 | 0.38 | Vert(LL) | -0.02 | 9-10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.44 | Vert(CT) | -0.05 | 9-10 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.10 | Horz(CT) | 0.00 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.01 | 9-10 | >999 | 240 | Weight: 27 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-11,5-7: 2x4 SPF No.2

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

**REACTIONS.** (size) 11=0-3-8, 8=0-3-8
Max Horz 11=-36(LC 6)
Max Uplift 11=-68(LC 8), 8=-115(LC 9)
Max Grav 11=468(LC 21), 8=543(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-453/68, 4-5=-294/78, 2-11=-390/65, 5-7=-303/68
BOT CHORD 10-11=-55/360, 9-10=-60/360

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 8=115.
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) 55 lb down and 32 lb up at 1-9-8, and 62 lb down and 30 lb up at 3-11-0, and 68 lb down and 105 lb up at 6-0-8 on top chord, and 9 lb down and 3 lb up at 1-9-8, and 4 lb down and 2 lb up at 3-11-0, and 73 lb down and 64 lb up at 5-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-90, 2-3=-90, 3-4=-90, 4-5=-90, 5-6=-90, 7-11=-20

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

January 27,2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | H1 | Hip Girder | 1 | 1 | I44539528 |
| | | | | | Job Reference (optional) |



**LOAD CASE(S)** Standard
Concentrated Loads (lb)
Vert: 10=3(F) 9=2(F) 13=2(F)

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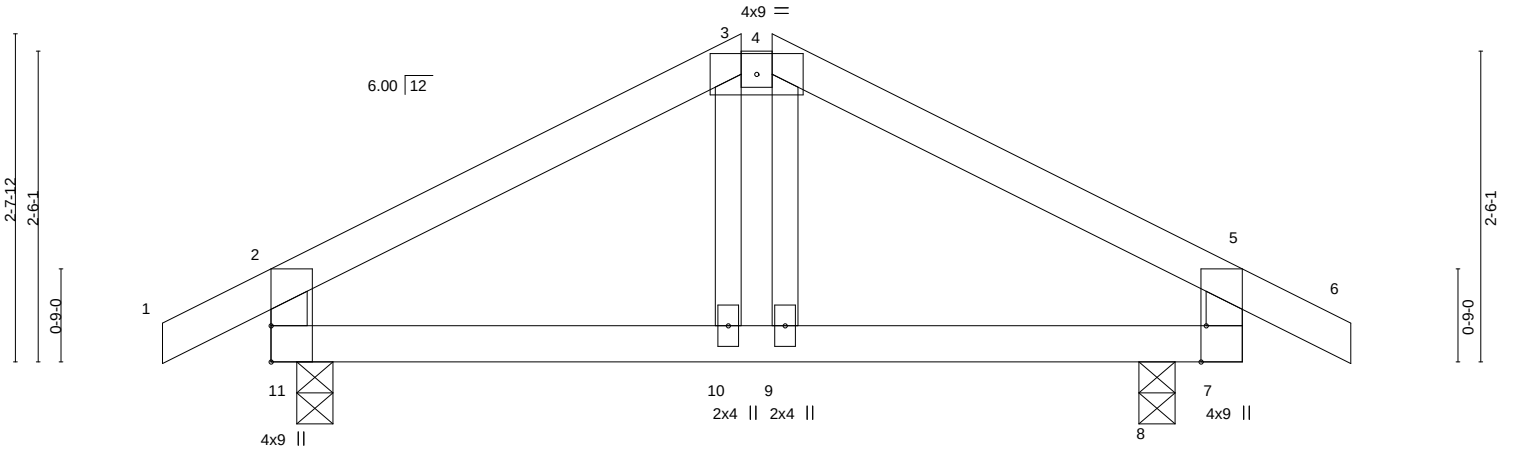
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | H2 | Hip | 1 | 1 | I44539529 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:38 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-SkMYo1z_zoHPs2YcVbPKxc27mfxpL5n1FTGCcBzrU?J

-0-10-8 | 3-9-8 | 4-0-8 | 7-10-0 | 8-8-8
0-10-8 | 3-9-8 | 0-3-0 | 3-9-8 | 0-10-8

Scale = 1:18.6




0-2-8 | 3-9-8 | 4-0-8 | 7-3-8 | 7-10-0
0-2-8 | 3-7-0 | 0-3-0 | 3-3-0 | 0-6-8

Plate Offsets (X,Y)-- [7:0-3-8,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 | 0.34 | Vert(LL) | -0.01 | 10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.47 | Vert(CT) | -0.03 | 10 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 10-11 | >999 | 240 | Weight: 25 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-10,4-9: 2x3 SPF No.2

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

**REACTIONS.** (size) 11=0-3-8, 8=0-3-8
Max Horz 11=-49(LC 6)
Max Uplift 11=-63(LC 8), 8=-70(LC 9)
Max Grav 11=467(LC 1), 8=546(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-365/43, 4-5=-354/51, 2-11=-413/87, 5-7=-413/86
BOT CHORD 10-11=0/250

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | H3 | Common | 3 | 1 | I44539530 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:38 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-SkMYo1z_zoHPs2YcVbPKxc27TfxvL5A1FTGCcBzrU?J

-0-10-8 3-11-0 7-10-0 8-8-8
0-10-8 3-11-0 3-11-0 0-10-8

Scale = 1:18.8

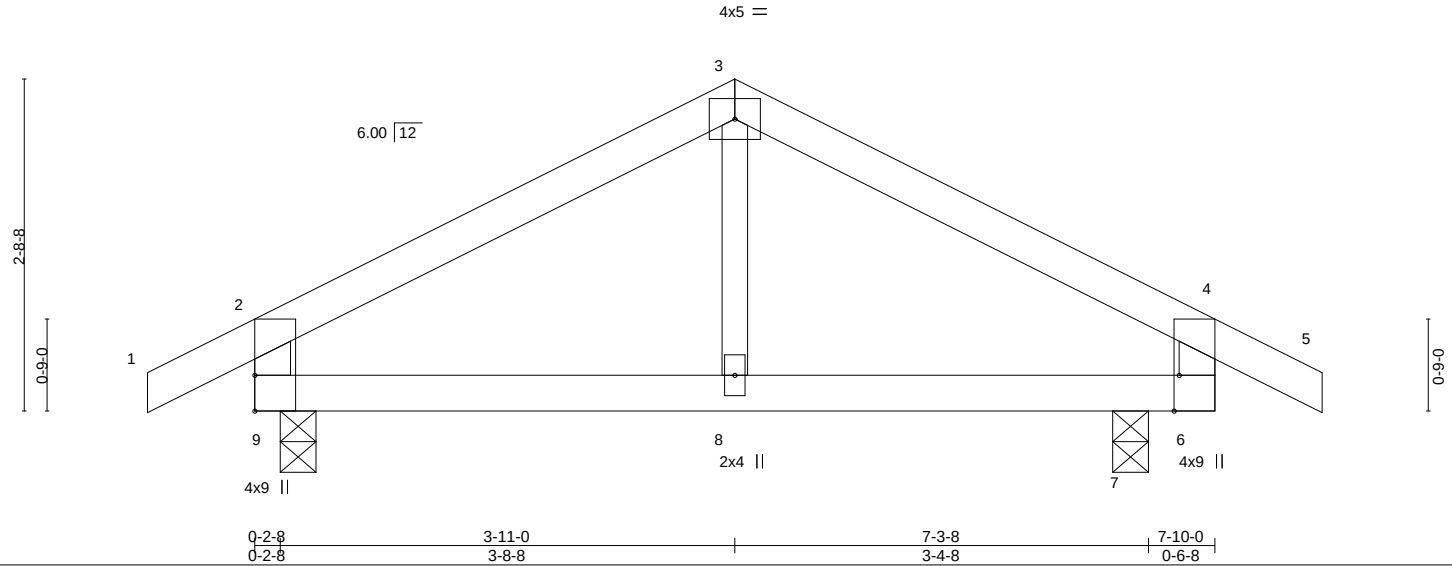


Plate Offsets (X,Y)-- [6:0-3-8,Edge]

| 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 | 0.36 | Vert(LL) | -0.02 | 8-9 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.47 | Vert(CT) | -0.04 | 8-9 | >999 | 240 | | |
| 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-R | | Wind(LL) | 0.01 | 8-9 | >999 | 240 | Weight: 24 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-8: 2x3 SPF No.2

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

**REACTIONS.** (size) 9=0-3-8, 7=0-3-8
Max Horz 9=-50(LC 6)
Max Uplift 9=-63(LC 8), 7=-70(LC 9)
Max Grav 9=467(LC 1), 7=546(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-352/44, 3-4=-360/53, 2-9=-405/89, 4-6=-425/90

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

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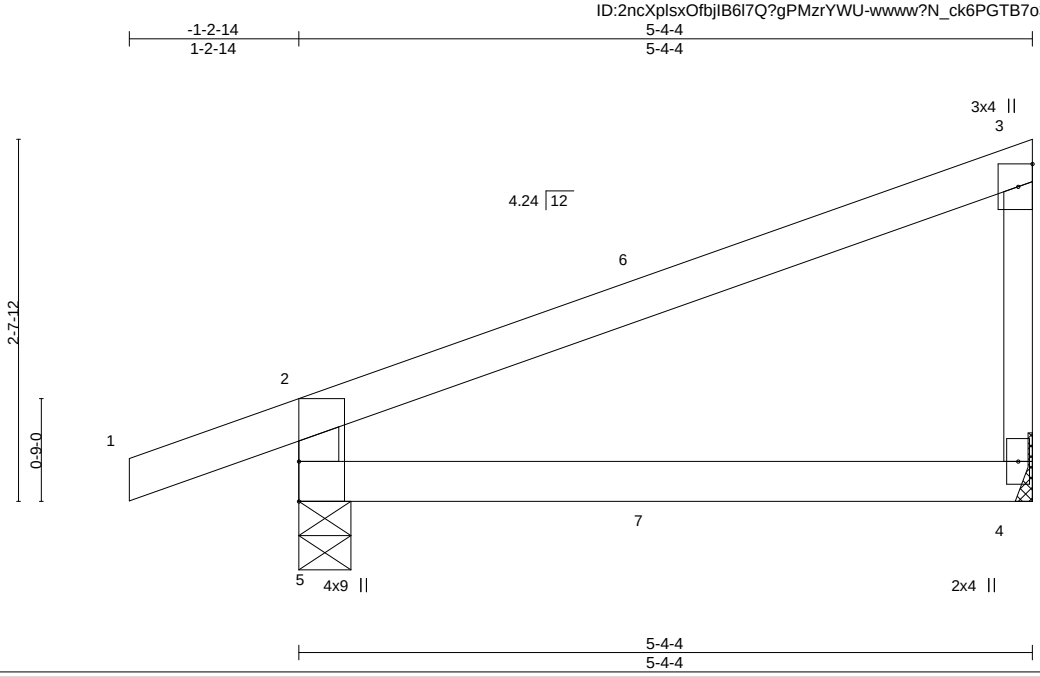
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J1 | Diagonal Hip Girder | 3 | 1 | I44539531 |

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:39 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-wwww?N_ck6PGTB7o3lwZTqaGM3Le4YqAU7?l8dzrU?I




| 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) | -0.03 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.24 | Vert(CT) | -0.06 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 4-5 | >999 | 240 | Weight: 16 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x4 SPF No.2 *Except* 3-4: 2x3 SPF No.2 |

**BRACING-**

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

**REACTIONS.** (size) 5=0-4-9, 4=Mechanical
Max Horz 5=111(LC 22)
Max Uplift 5=-99(LC 4), 4=-49(LC 8)
Max Grav 5=420(LC 1), 4=262(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-385/137

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 34 lb up at 2-7-6, and 74 lb down and 34 lb up at 2-7-6 on top chord, and 3 lb down and 2 lb up at 2-7-6, and 3 lb down and 2 lb up at 2-7-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-90, 2-3=-90, 4-5=-20
Concentrated Loads (lb)
Vert: 7=3(F=2, B=2)


January 27,2021

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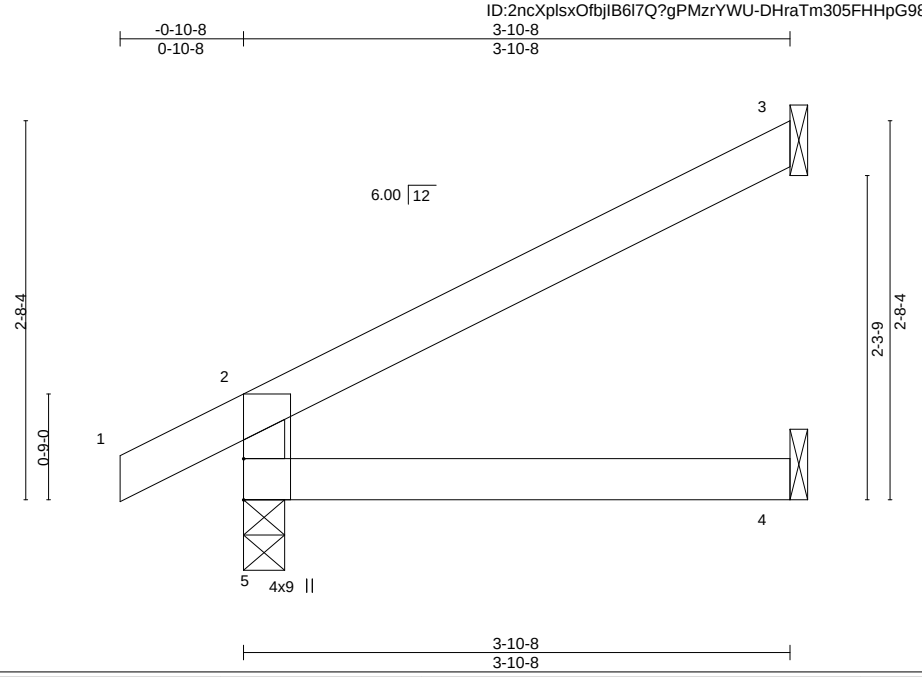
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J2 | Jack-Open | 10 | 1 | I44539532 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:46 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-DHraTm305FHHpG98zGYCFINWJum4DjZC5iCdujzrU?B




| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.24 | Vert(LL) | -0.01 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.13 | Vert(CT) | -0.02 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.01 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 4-5 | >999 | 240 | Weight: 11 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=85(LC 8)
Max Uplift 5=-28(LC 8), 3=-65(LC 8)
Max Grav 5=306(LC 1), 3=143(LC 1), 4=72(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-279/64

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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, 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.


January 27,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J3 | Jack-Open | 9 | 1 | I44539533 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:53 2021 Page 1
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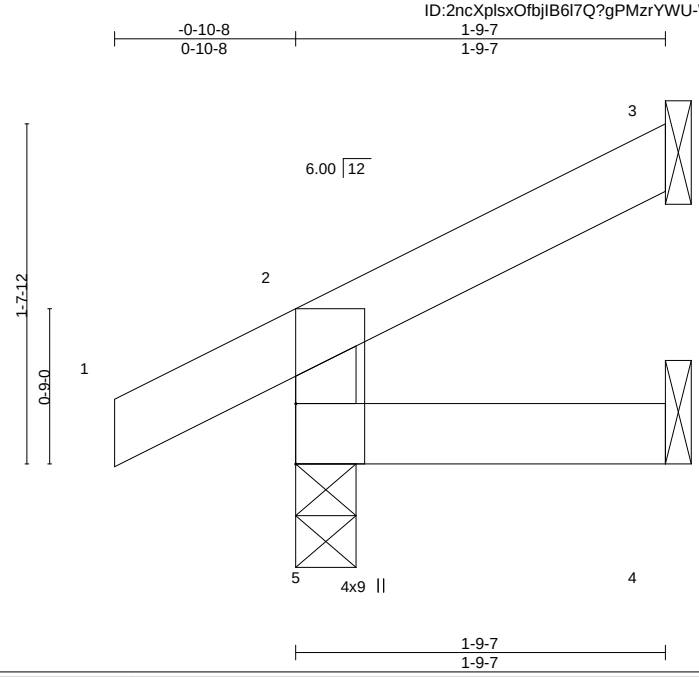


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.09 | Vert(LL) | -0.00 | 5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | -0.00 | 5 | >999 | 240 | | |
| 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-R | | Wind(LL) | 0.00 | 5 | >999 | 240 | Weight: 6 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 1-9-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=44(LC 8)
Max Uplift 5=-24(LC 8), 3=-29(LC 8)
Max Grav 5=210(LC 1), 3=50(LC 1), 4=28(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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, 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.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J4 | Diagonal Hip Girder | 1 | 1 | I44539534 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:55 2021 Page 1
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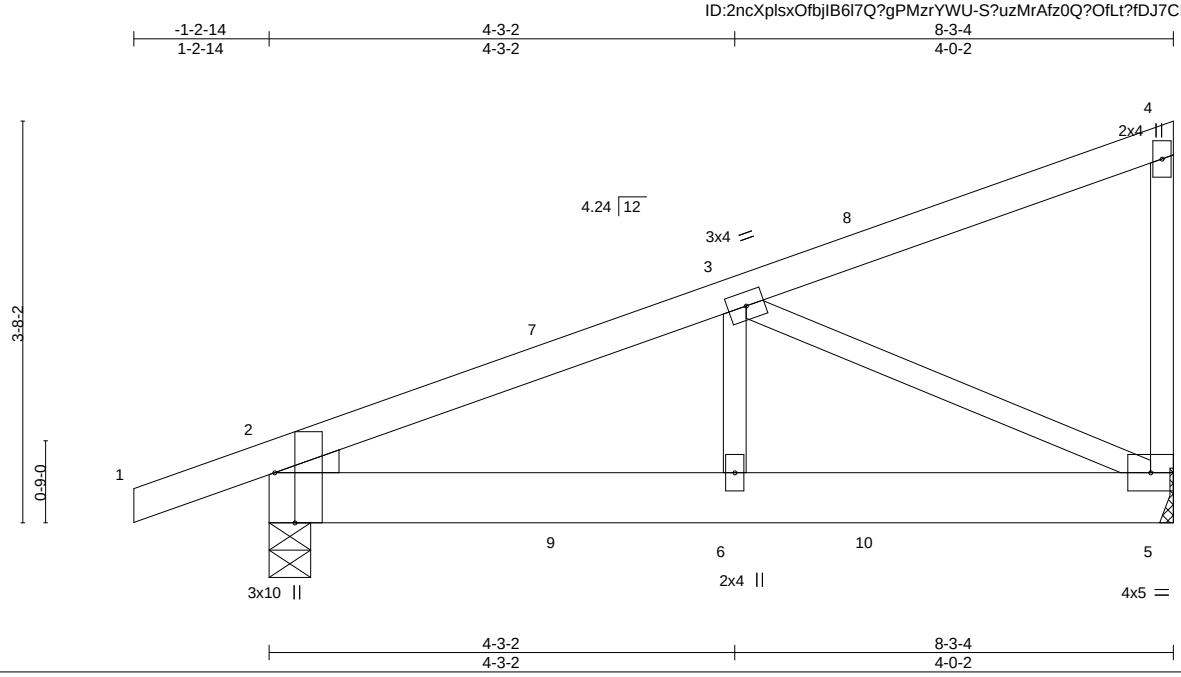


Plate Offsets (X,Y)-- [2:0-5-8,Edge]

| 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 | 0.31 | Vert(LL) | -0.01 | 6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.20 | Vert(CT) | -0.02 | 6 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.29 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | Wind(LL) | 0.01 | 6 | >999 | 240 | Weight: 34 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2

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

**REACTIONS.** (size) 5=Mechanical, 2=0-4-9
Max Horz 2=148(LC 5)
Max Uplift 5=-104(LC 8), 2=-133(LC 4)
Max Grav 5=469(LC 1), 2=598(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-719/98
BOT CHORD 2-6=-140/566, 5-6=-140/566
WEBS 3-5=-627/163

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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) 5=104, 2=133.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 76 lb down and 35 lb up at 2-8-7, 76 lb down and 35 lb up at 2-8-7, and 127 lb down and 73 lb up at 5-6-6, and 127 lb down and 73 lb up at 5-6-6 on top chord , and 3 lb down and 1 lb up at 2-8-7, 3 lb down and 1 lb up at 2-8-7, and 25 lb down at 5-6-6, and 25 lb down at 5-6-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 2-5=-20


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Continued on page 2

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J4 | Diagonal Hip Girder | 1 | 1 | I44539534 |
| | | | | | Job Reference (optional) |



**LOAD CASE(S)** Standard
Concentrated Loads (lb)
Vert: 8=-30(F=-15, B=-15) 9=3(F=1, B=1) 10=-34(F=-17, B=-17)

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J5 | Jack-Closed | 14 | 1 | I44539535 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:56 2021 Page 1
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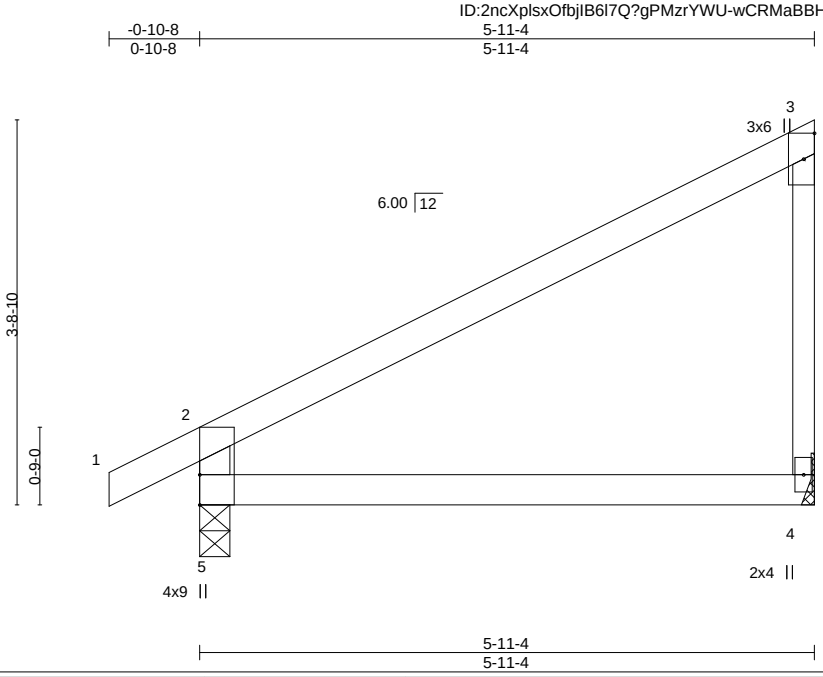


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.58 | Vert(LL) | -0.04 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.29 | Vert(CT) | -0.10 | 4-5 | >681 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.02 | 4-5 | >999 | 240 | Weight: 18 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-4: 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 4=Mechanical
Max Horz 5=117(LC 5)
Max Uplift 5=-12(LC 8), 4=-24(LC 8)
Max Grav 5=413(LC 1), 4=305(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-376/54

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J6 | Jack-Open | 2 | 1 | I44539536 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:56 2021 Page 1
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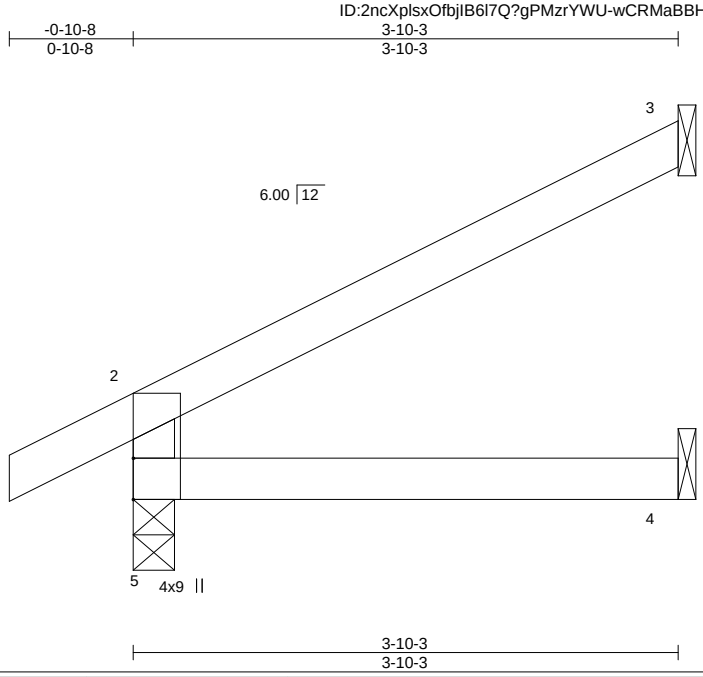


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.24 | Vert(LL) | -0.01 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.13 | Vert(CT) | -0.02 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.01 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 4-5 | >999 | 240 | Weight: 11 lb | FT = 10% |

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

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

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=85(LC 8)
Max Uplift 5=-27(LC 8), 3=-64(LC 8)
Max Grav 5=305(LC 1), 3=142(LC 1), 4=71(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-277/64

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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, 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.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J7 | Jack-Open | 4 | 1 | I44539537 |
| | | | | | Job Reference (optional) |

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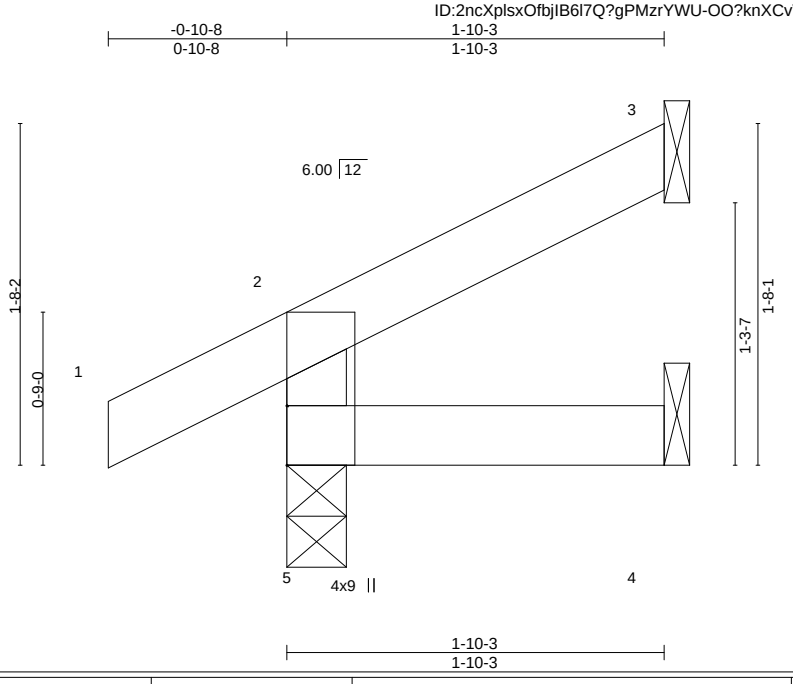


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.09 | Vert(LL) | -0.00 | 5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | -0.00 | 5 | >999 | 240 | | |
| 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-R | | Wind(LL) | 0.00 | 5 | >999 | 240 | Weight: 6 lb | FT = 10% |

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

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

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=45(LC 8)
Max Uplift 5=-24(LC 8), 3=-30(LC 8)
Max Grav 5=213(LC 1), 3=53(LC 1), 4=30(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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, 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.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J8 | Jack-Closed | 2 | 1 | I44539538 |
| | | | | | Job Reference (optional) |

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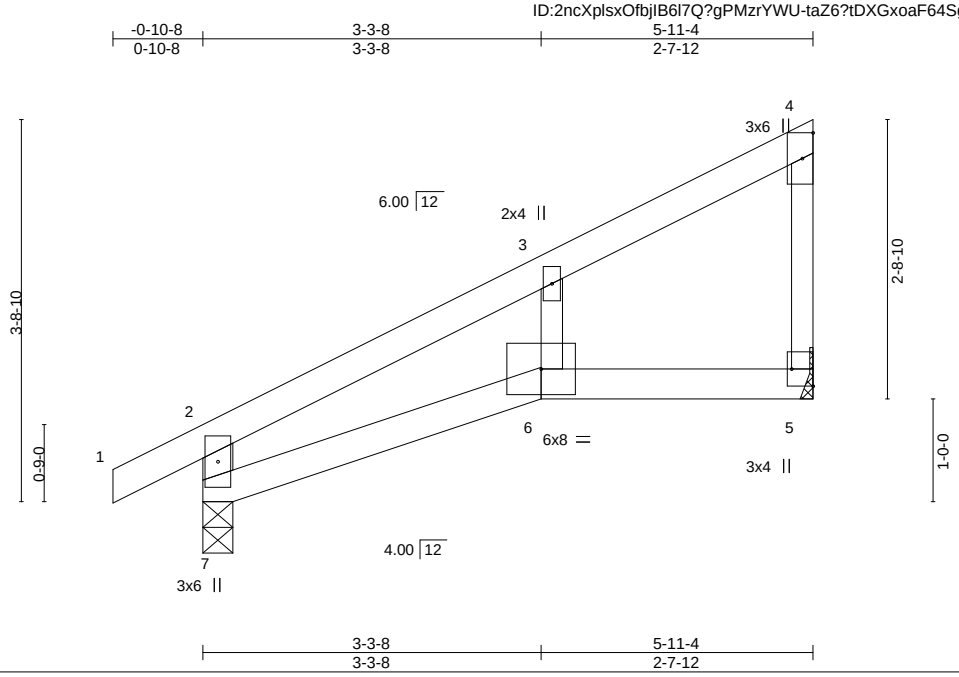


Plate Offsets (X,Y)-- [5:Edge,0-2-8]

| 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 | 0.44 | Vert(LL) | -0.07 | 6 | >931 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.32 | Vert(CT) | -0.16 | 6 | >427 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.01 | Horz(CT) | 0.05 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.06 | 6 | >999 | 240 | Weight: 19 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-7: 2x4 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 7=0-3-8, 5=Mechanical
Max Horz 7=105(LC 5)
Max Uplift 7=-10(LC 8), 5=-26(LC 8)
Max Grav 7=413(LC 1), 5=305(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-363/25

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J9 | Diagonal Hip Girder | 1 | 1 | I44539539 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:59 2021 Page 1
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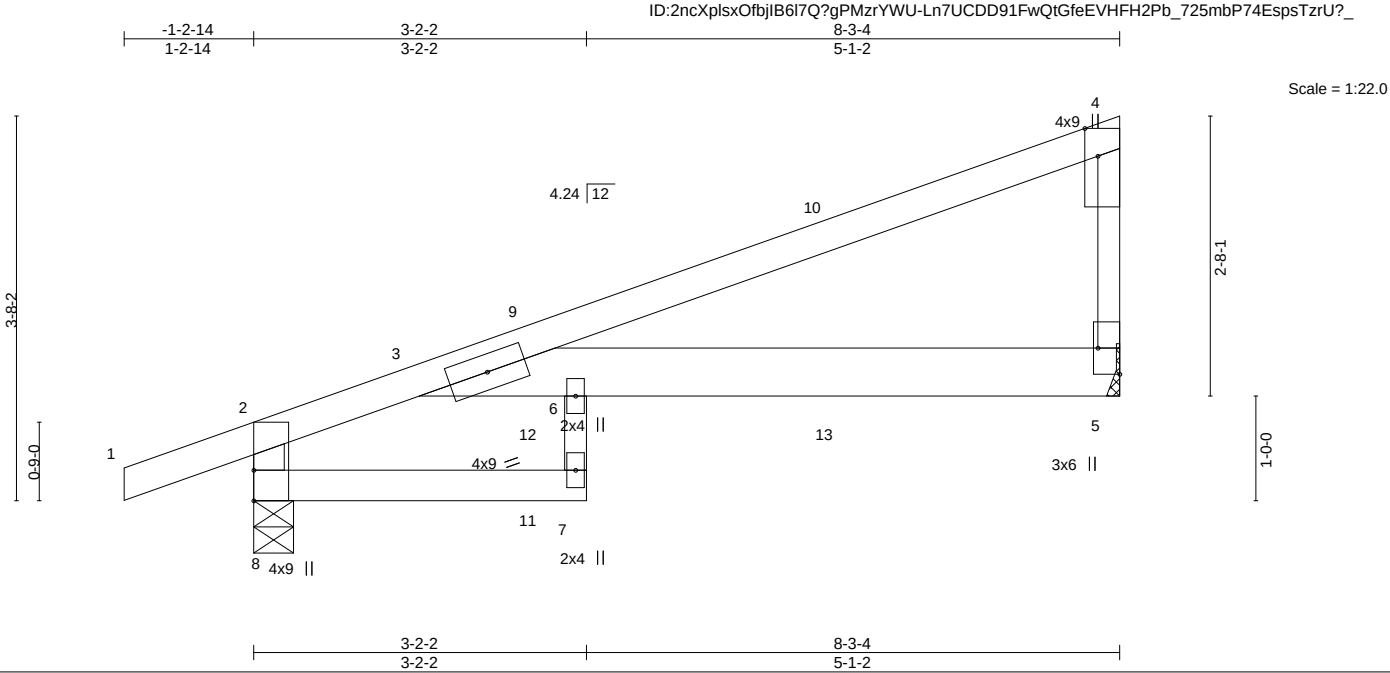


Plate Offsets (X,Y)-- [4:0-3-3,Edge], [5:Edge,0-2-8]

| 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 | 0.88 | Vert(LL) | -0.12 | 5-6 | >794 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.70 | Vert(CT) | -0.27 | 5-6 | >356 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.02 | Horz(CT) | 0.15 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.14 | 5-6 | >696 | 240 | Weight: 30 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-5: 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-8: 2x4 SPF No.2

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

**REACTIONS.** (size) 8=0-4-9, 5=Mechanical
Max Horz 8=139(LC 5)
Max Uplift 8=-138(LC 4), 5=-125(LC 8)
Max Grav 8=602(LC 1), 5=485(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-601/170, 4-5=-255/89

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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) 8=138, 5=125.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 76 lb down and 35 lb up at 2-8-7, 76 lb down and 35 lb up at 2-8-7, and 118 lb down and 56 lb up at 5-6-6, and 118 lb down and 56 lb up at 5-6-6 on top chord , and 3 lb down and 1 lb up at 2-8-7, 3 lb down and 1 lb up at 2-8-7, and 37 lb down and 32 lb up at 5-6-6, and 37 lb down and 32 lb up at 5-6-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-90, 2-4=-90, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 10=-9(F=-4, B=-4) 11=3(F=1, B=1) 13=-74(F=-37, B=-37)


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J10 | Jack-Closed | 5 | 1 | I44539540 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:40 2021 Page 1
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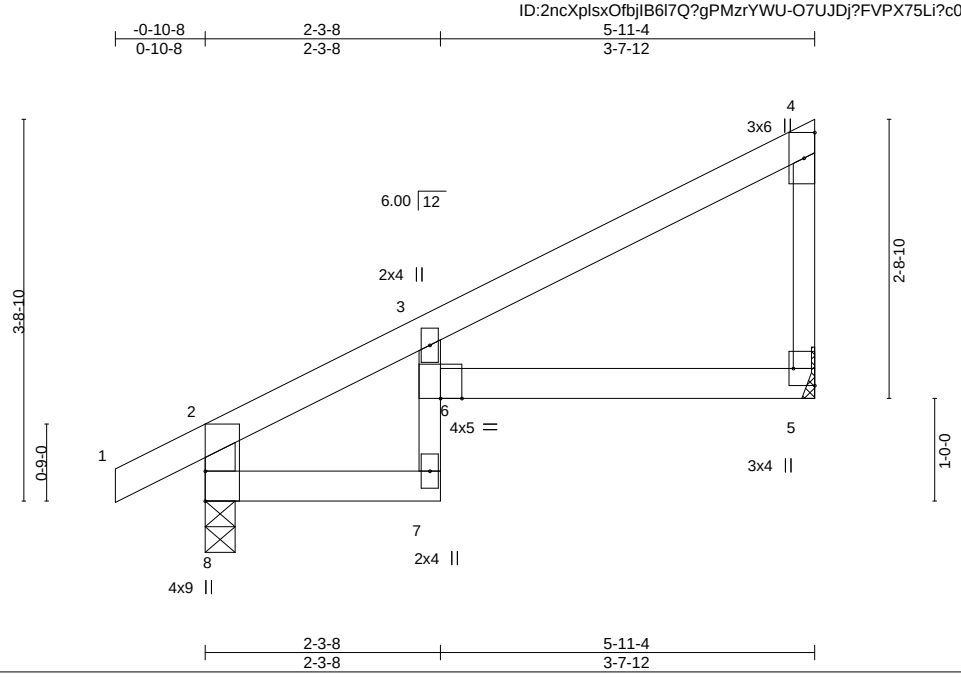


Plate Offsets (X,Y)-- [5:Edge,0-2-8]

| 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 | 0.47 | Vert(LL) | -0.07 | 6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.53 | Vert(CT) | -0.15 | 5-6 | >464 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.08 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.05 | 6 | >999 | 240 | Weight: 19 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-7: 2x3 SPF No.2
WEBS 2x4 SPF No.2 *Except*
4-5: 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 8=0-3-8, 5=Mechanical
Max Horz 8=104(LC 5)
Max Uplift 8=-10(LC 8), 5=-26(LC 8)
Max Grav 8=413(LC 1), 5=305(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-400/30, 2-3=-296/4

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 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.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J11 | Jack-Closed | 5 | 1 | I44539541 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:40 2021 Page 1
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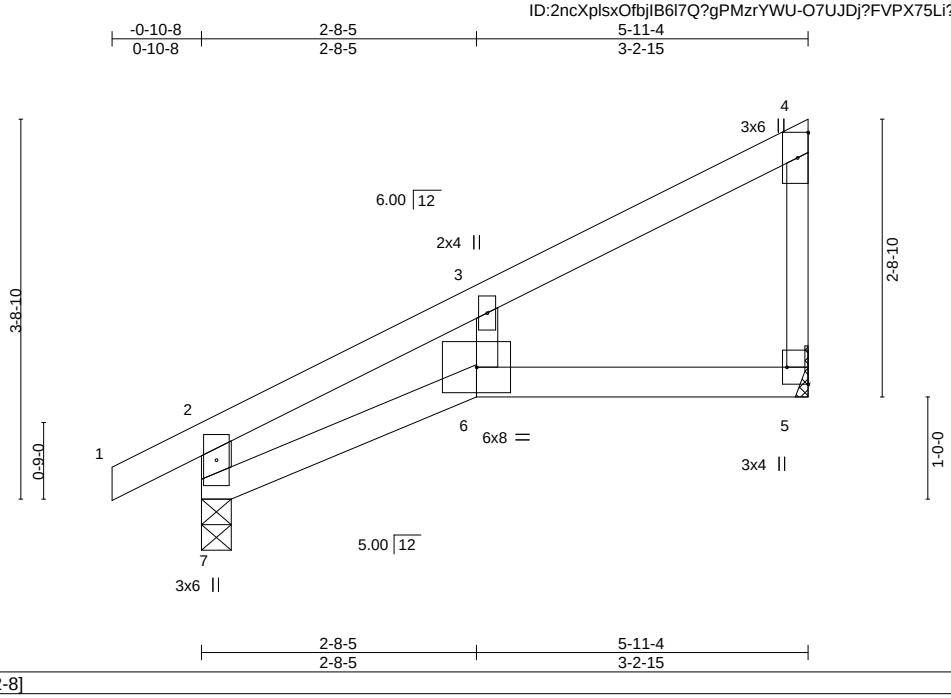


Plate Offsets (X,Y)-- [5:Edge,0-2-8]

| 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 | 0.45 | Vert(LL) | -0.08 | 6 | >866 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.34 | Vert(CT) | -0.17 | 6 | >398 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.02 | Horz(CT) | 0.07 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.06 | 6 | >999 | 240 | Weight: 19 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-7: 2x4 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 7=0-3-8, 5=Mechanical
Max Horz 7=105(LC 5)
Max Uplift 7=-10(LC 8), 5=-26(LC 8)
Max Grav 7=413(LC 1), 5=305(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-354/17

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J12 | Jack-Open | 2 | 1 | I44539542 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:41 2021 Page 1
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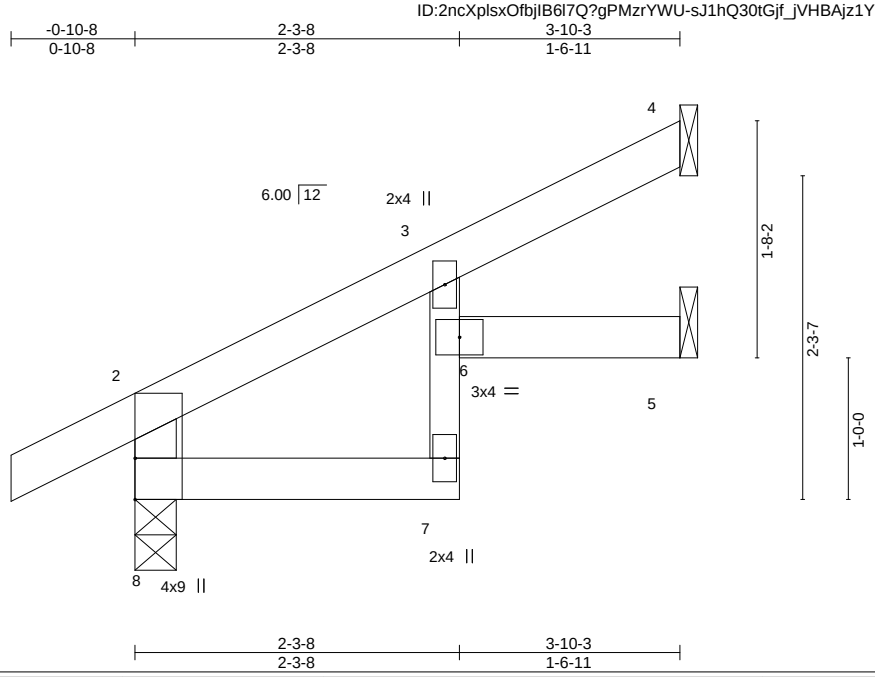


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.15 | Vert(LL) | -0.01 | 6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.23 | Vert(CT) | -0.02 | 7 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.01 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | Wind(LL) | 0.01 | 7 | >999 | 240 | Weight: 12 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-7: 2x3 SPF No.2
WEBS 2x4 SPF No.2

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

**REACTIONS.** (size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=85(LC 8)
Max Uplift 8=-27(LC 8), 4=-45(LC 8), 5=-12(LC 8)
Max Grav 8=305(LC 1), 4=122(LC 1), 5=67(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-287/52

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 4, 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.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J14 | Diagonal Hip Girder | 1 | 1 | I44539543 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:42 2021 Page 1
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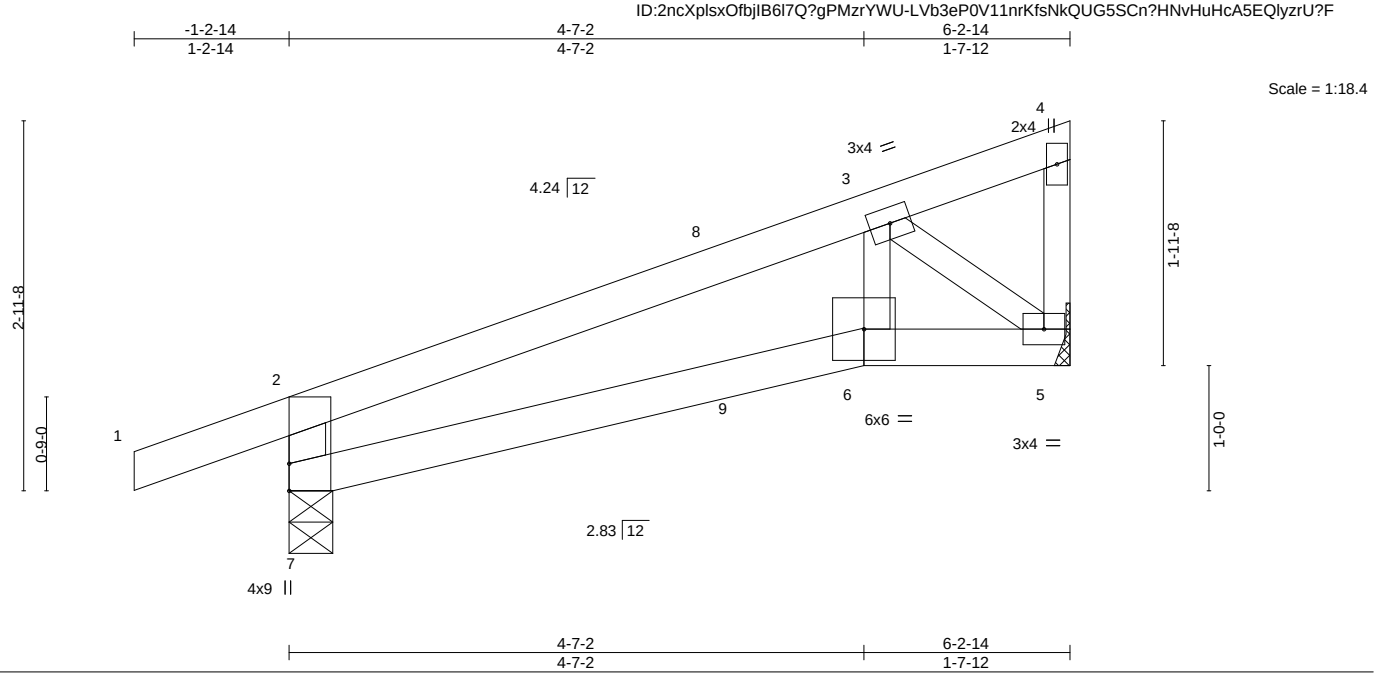


Plate Offsets (X,Y)-- [7:0-2-10,Edge]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.45 | Vert(LL) | -0.01 | 6-7 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.21 | Vert(CT) | -0.03 | 6-7 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.08 | Horz(CT) | 0.01 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.01 | 6 | >999 | 240 | Weight: 20 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-7: 2x4 SPF No.2

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

**REACTIONS.** (size) 7=0-4-3, 5=Mechanical
Max Horz 7=109(LC 5)
Max Uplift 7=-102(LC 4), 5=-60(LC 8)
Max Grav 7=469(LC 1), 5=316(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-493/146, 2-3=-465/75
BOT CHORD 6-7=-106/377, 5-6=-98/351
WEBS 3-5=-440/129

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 91 lb down and 47 lb up at 3-6-0, and 91 lb down and 47 lb up at 3-6-0 on top chord, and 7 lb down at 3-6-0, and 7 lb down at 3-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-90, 2-4=-90, 6-7=-20, 5-6=-20


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Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J14 | Diagonal Hip Girder | 1 | 1 | I44539543<br>Job Reference (optional) |



**LOAD CASE(S)** Standard
Concentrated Loads (lb)
Vert: 9=-1(F=-1, B=-1)

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J15 | Diagonal Hip Girder | 1 | 1 | I44539544 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:43 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-pi9Rrl17oKviypQaI8?Vdgl?zgiT0LPmOlzzIOzrU?E

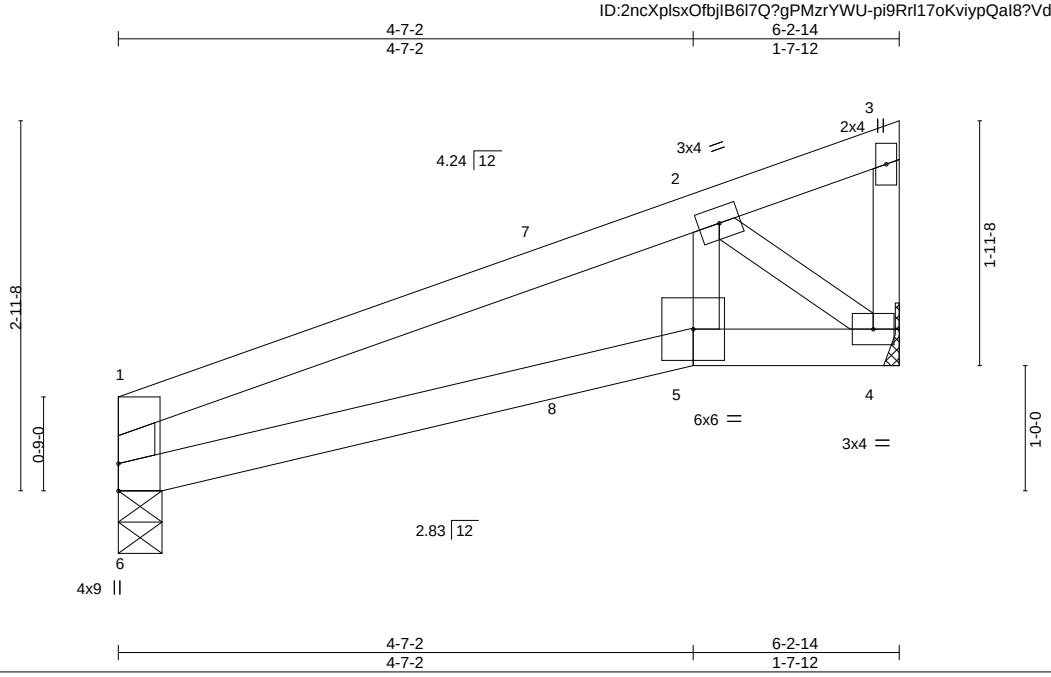


Plate Offsets (X,Y)-- [6:0-2-10,Edge]

| LOADING | (psf) | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.31 | Vert(LL) | -0.01 | 5-6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.25 | Vert(CT) | -0.03 | 5-6 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.09 | Horz(CT) | 0.01 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.01 | 5 | >999 | 240 | Weight: 18 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-6: 2x4 SPF No.2

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

**REACTIONS.** (size) 6=0-4-3, 4=Mechanical
Max Horz 6=98(LC 5)
Max Uplift 6=-39(LC 4), 4=-64(LC 8)
Max Grav 6=331(LC 1), 4=332(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-356/85, 1-2=-491/79
BOT CHORD 5-6=-113/409, 4-5=-106/383
WEBS 2-4=-481/136

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 98 lb down and 54 lb up at 3-6-0, and 91 lb down and 47 lb up at 3-6-0 on top chord, and 10 lb down at 3-6-0, and 7 lb down at 3-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 5-6=-20, 4-5=-20
Concentrated Loads (lb)
Vert: 8=-4(F=-4, B=-1)


January 27,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J16 | Jack-Open | 3 | 1 | I44539545 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:44 2021 Page 1
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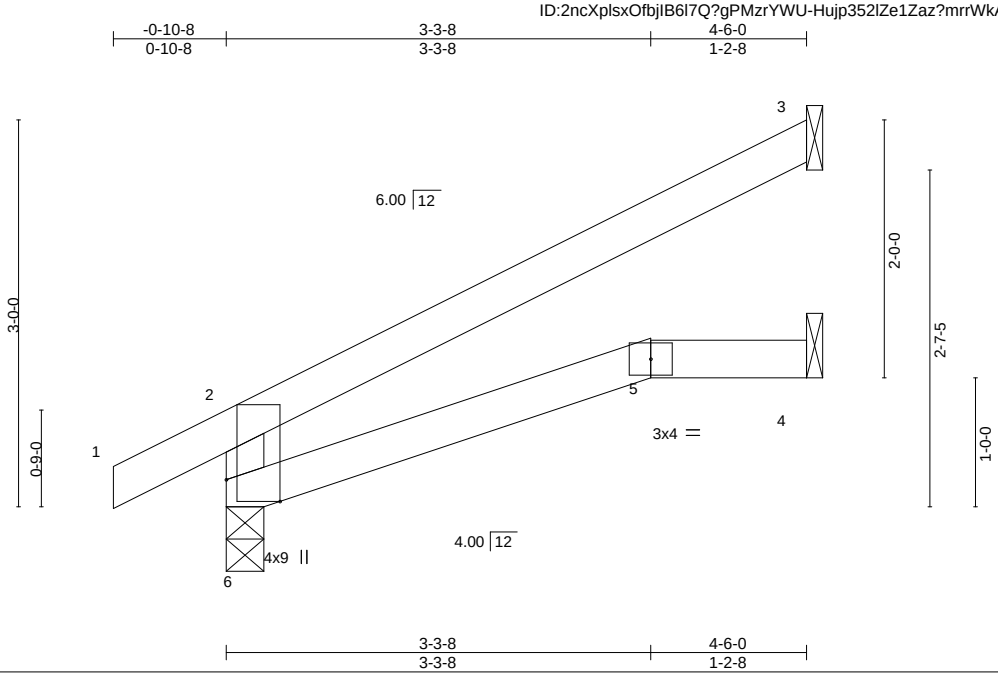


Plate Offsets (X,Y)-- [6:0-2-0,Edge]

| LOADING | (psf) | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.35 | Vert(LL) | -0.02 | 5-6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.18 | Vert(CT) | -0.04 | 5-6 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.02 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.02 | 5-6 | >999 | 240 | Weight: 13 lb | FT = 10% |

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

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

**REACTIONS.** (size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=98(LC 8)
Max Uplift 6=-28(LC 8), 3=-76(LC 8)
Max Grav 6=339(LC 1), 3=170(LC 1), 4=84(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-308/71

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J17 | Jack-Open | 3 | 1 | I44539546 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:44 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-Hujp352lZe1Zaz?mrrWkAtHD8450lp4vdOjWqrzrU?D

-0-10-8 2-4-15
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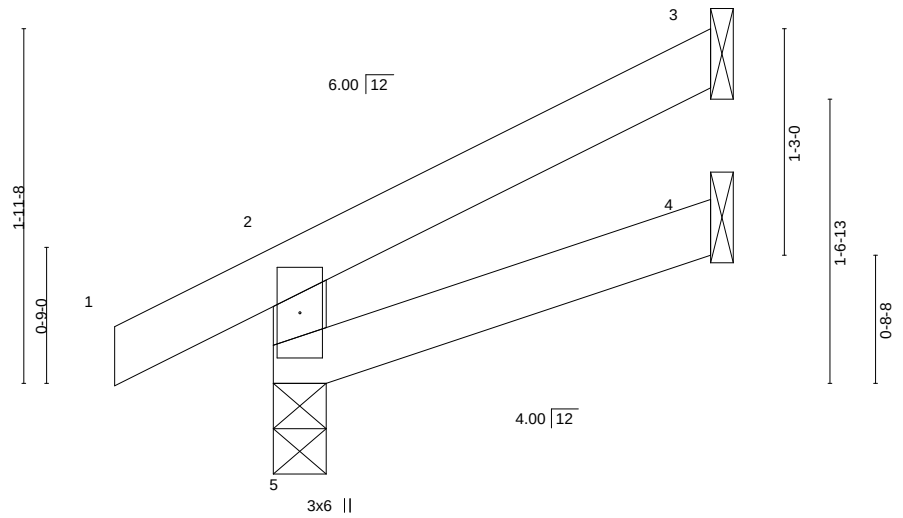


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.09 | Vert(LL) | -0.00 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | -0.00 | 4-5 | >999 | 240 | | |
| 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-R | | Wind(LL) | 0.00 | 4-5 | >999 | 240 | Weight: 8 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-4-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=55(LC 8)
Max Uplift 5=-23(LC 8), 3=-40(LC 8)
Max Grav 5=234(LC 1), 3=79(LC 1), 4=41(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) 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.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J18 | Jack-Open | 1 | 1 | I44539547 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:45 2021 Page 1
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2-4-15
2-4-15

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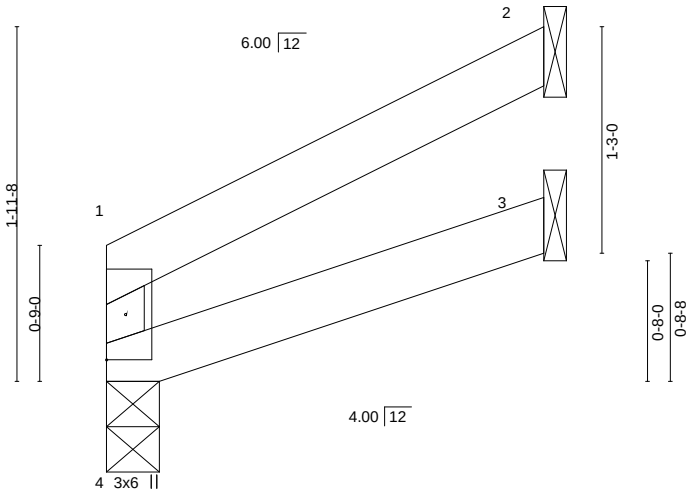


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.10 | Vert(LL) | -0.00 | 3-4 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | -0.00 | 3-4 | >999 | 240 | | |
| 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-R | | Wind(LL) | 0.00 | 3-4 | >999 | 240 | Weight: 6 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-4-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=40(LC 5)
Max Uplift 2=-45(LC 8)
Max Grav 4=123(LC 1), 2=96(LC 1), 3=45(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J19 | Diagonal Hip Girder | 3 | 1 | I44539548 |

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:46 2021 Page 1
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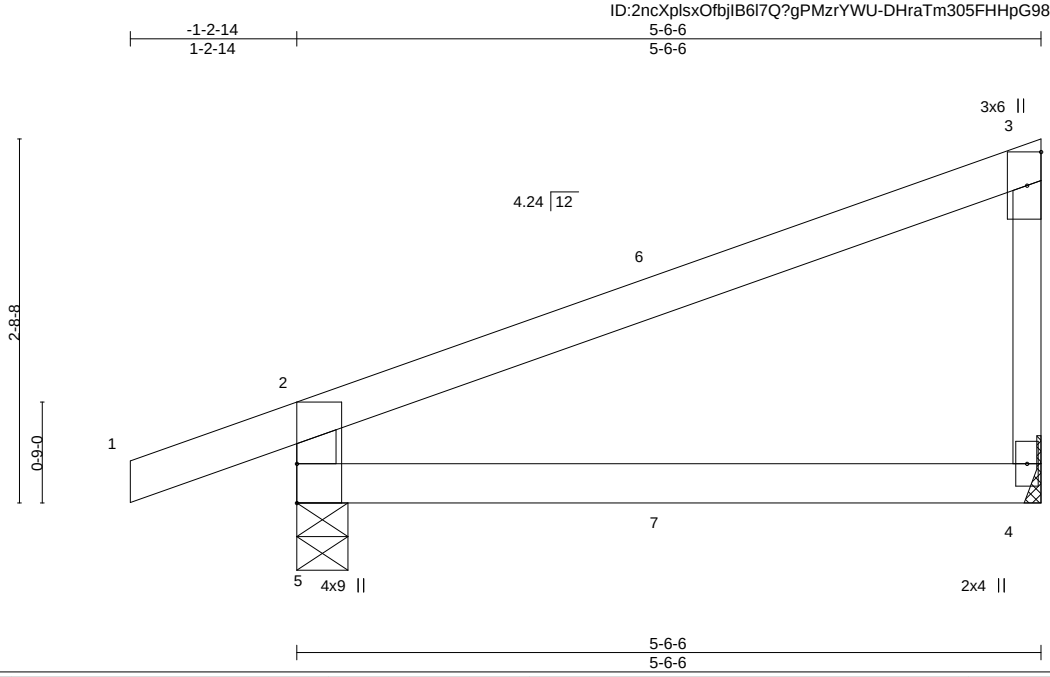


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.52 | Vert(LL) | -0.03 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.26 | Vert(CT) | -0.07 | 4-5 | >922 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 4-5 | >999 | 240 | Weight: 17 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-4: 2x3 SPF No.2

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

**REACTIONS.** (size) 5=0-4-9, 4=Mechanical
Max Horz 5=114(LC 24)
Max Uplift 5=-100(LC 4), 4=-51(LC 8)
Max Grav 5=430(LC 1), 4=273(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-393/140

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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) 4 except (jt=lb) 5=100.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 37 lb up at 2-9-8, and 78 lb down and 37 lb up at 2-9-8 on top chord, and 3 lb down and 1 lb up at 2-9-8, and 3 lb down and 1 lb up at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-90, 2-3=-90, 4-5=-20
Concentrated Loads (lb)
Vert: 7=2(F=1, B=1)


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J20 | Jack-Open | 12 | 1 | I44539549 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:47 2021 Page 1
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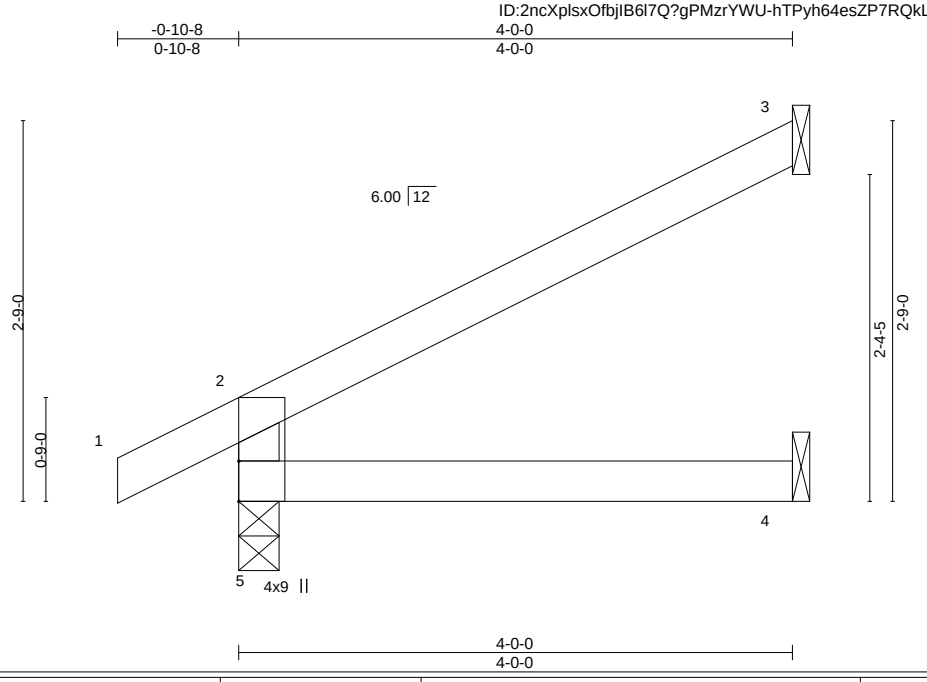


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.26 | Vert(LL) | -0.01 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.14 | Vert(CT) | -0.02 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.01 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 4-5 | >999 | 240 | Weight: 11 lb | FT = 10% |

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

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

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=88(LC 8)
Max Uplift 5=-28(LC 8), 3=-67(LC 8)
Max Grav 5=313(LC 1), 3=149(LC 1), 4=74(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-285/66

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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, 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.


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| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J21 | Jack-Open | 5 | 1 | I44539550 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:48 2021 Page 1
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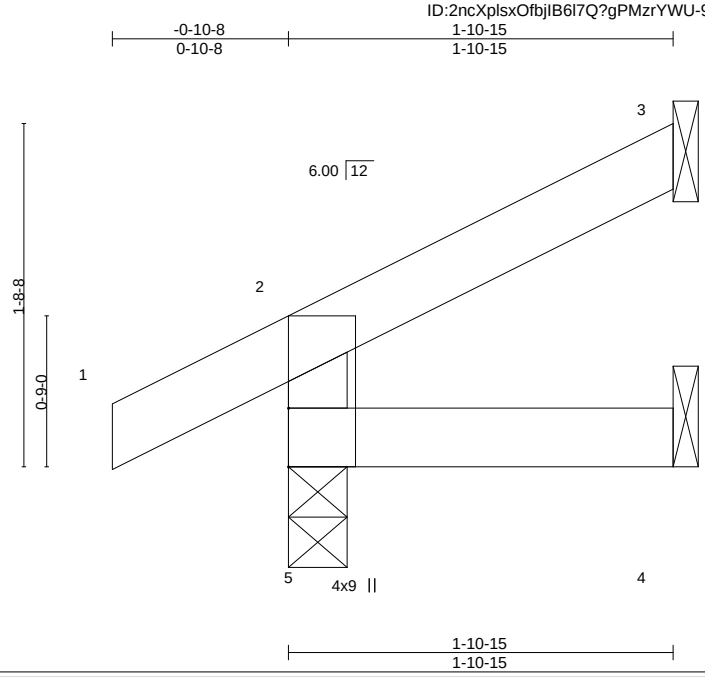


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.09 | Vert(LL) | -0.00 | 5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | -0.00 | 5 | >999 | 240 | | |
| 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-R | | Wind(LL) | 0.00 | 5 | >999 | 240 | Weight: 6 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=46(LC 8)
Max Uplift 5=-24(LC 8), 3=-31(LC 8)
Max Grav 5=215(LC 1), 3=56(LC 1), 4=31(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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, 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.


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| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J22 | Jack-Open | 1 | 1 | I44539551 |
| | | | | | Job Reference (optional) |

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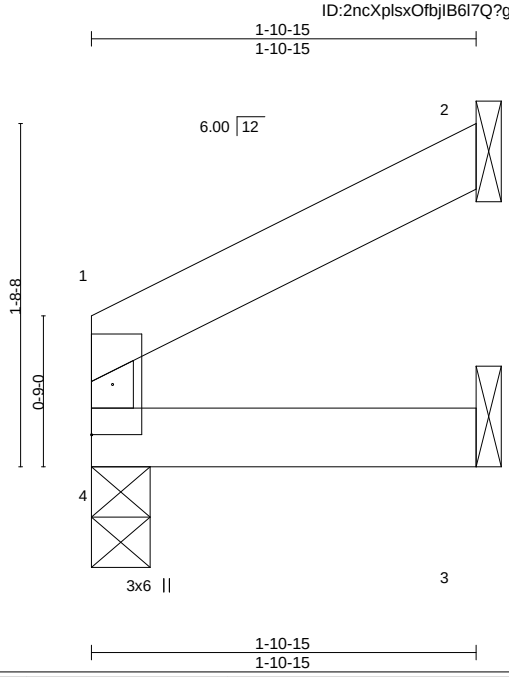


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.06 | Vert(LL) | -0.00 | 4 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 3-4 | >999 | 240 | | |
| 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-R | | Wind(LL) | 0.00 | 4 | >999 | 240 | Weight: 5 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=33(LC 5)
Max Uplift 2=-37(LC 8)
Max Grav 4=99(LC 1), 2=77(LC 1), 3=36(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J23 | JACK-CLOSED GIRDER | 1 | 2 | I44539552 |

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:49 2021 Page 1
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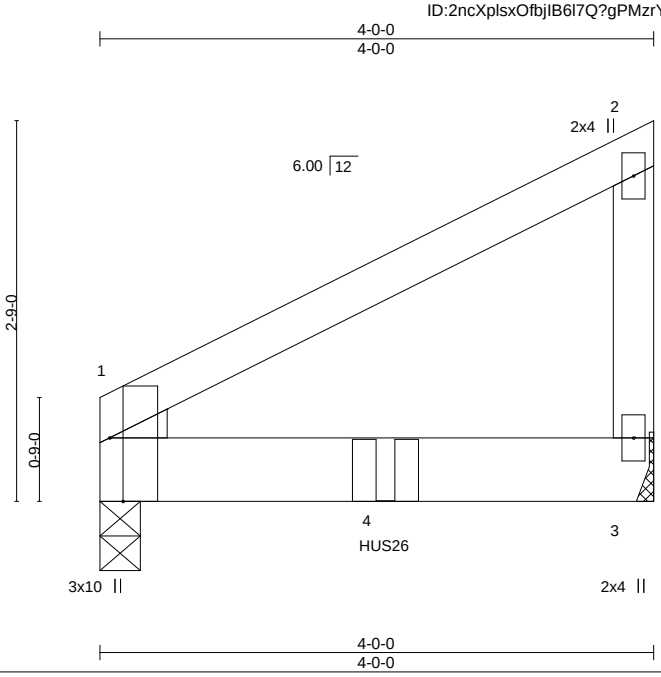


Plate Offsets (X,Y)-- [1:0-5-8,Edge]

| 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 | 0.24 | Vert(LL) | -0.02 | 1-3 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.83 | Vert(CT) | -0.05 | 1-3 | >811 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | Wind(LL) | 0.02 | 1-3 | >999 | 240 | Weight: 30 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x3 SPF No.2

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

**REACTIONS.** (size) 3=Mechanical, 1=0-3-8
Max Horz 1=95(LC 5)
Max Uplift 3=-204(LC 8), 1=-164(LC 8)
Max Grav 3=1081(LC 1), 1=1024(LC 1)

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

**NOTES-**
1) N/A
2) 2-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected with 10d (0.131"x3") nails as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
3) 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.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 3=204, 1=164.
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 at 2-0-12 from the left end to connect truss(es) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-90, 1-3=-20


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Continued on page 2

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**LOAD CASE(S)** Standard
Concentrated Loads (lb)
Vert: 4=-1697(B)


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Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J24 | Diagonal Hip Girder | 1 | 1 | I44539553 |
| | | | | | Job Reference (optional) |

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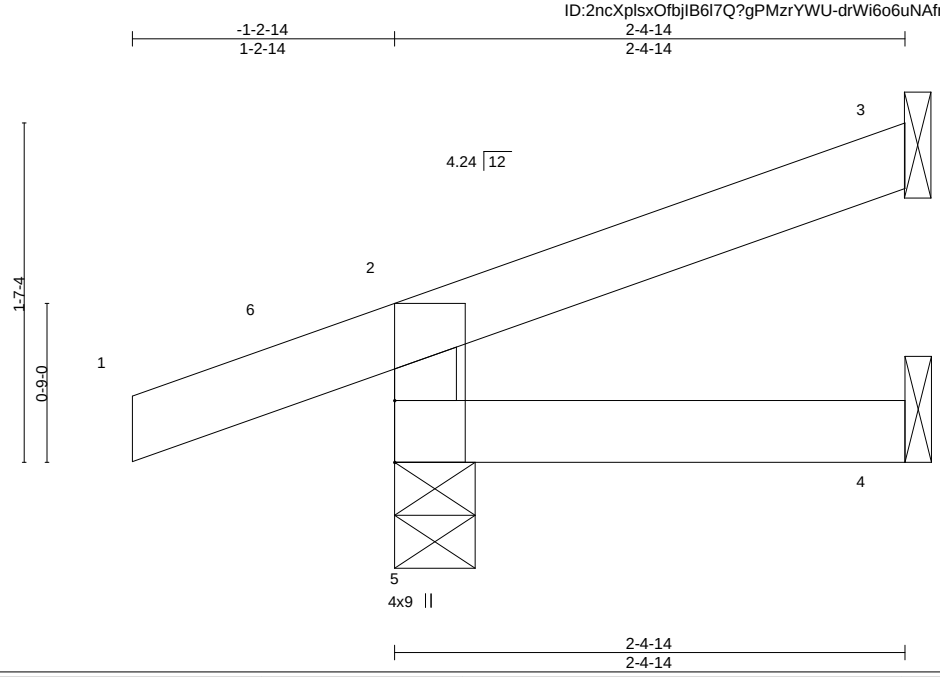


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.09 | Vert(LL) | -0.00 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.00 | 5 | >999 | 240 | Weight: 8 lb | FT = 10% |

**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=58(LC 7)
Max Uplift 5=-108(LC 19), 3=-26(LC 12)
Max Grav 5=98(LC 1), 3=36(LC 1), 4=29(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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) 3 except (jt=lb) 5=108.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 17 lb down and 5 lb up at -1-2-14, and 17 lb down and 5 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-27(F=-13, B=-13)
Trapezoidal Loads (plf)
Vert: 1=0(F=45, B=45)-to-6=-18(F=36, B=36), 6=0(F=45, B=45)-to-2=-13(F=38, B=38), 2=-13(F=38, B=38)-to-3=-64(F=13, B=13), 5=-3(F=9, B=9)-to-4=-14(F=3, B=3)


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Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | J25 | Diagonal Hip Girder | 1 | 1 | I44539554 |
| | | | | | Job Reference (optional) |

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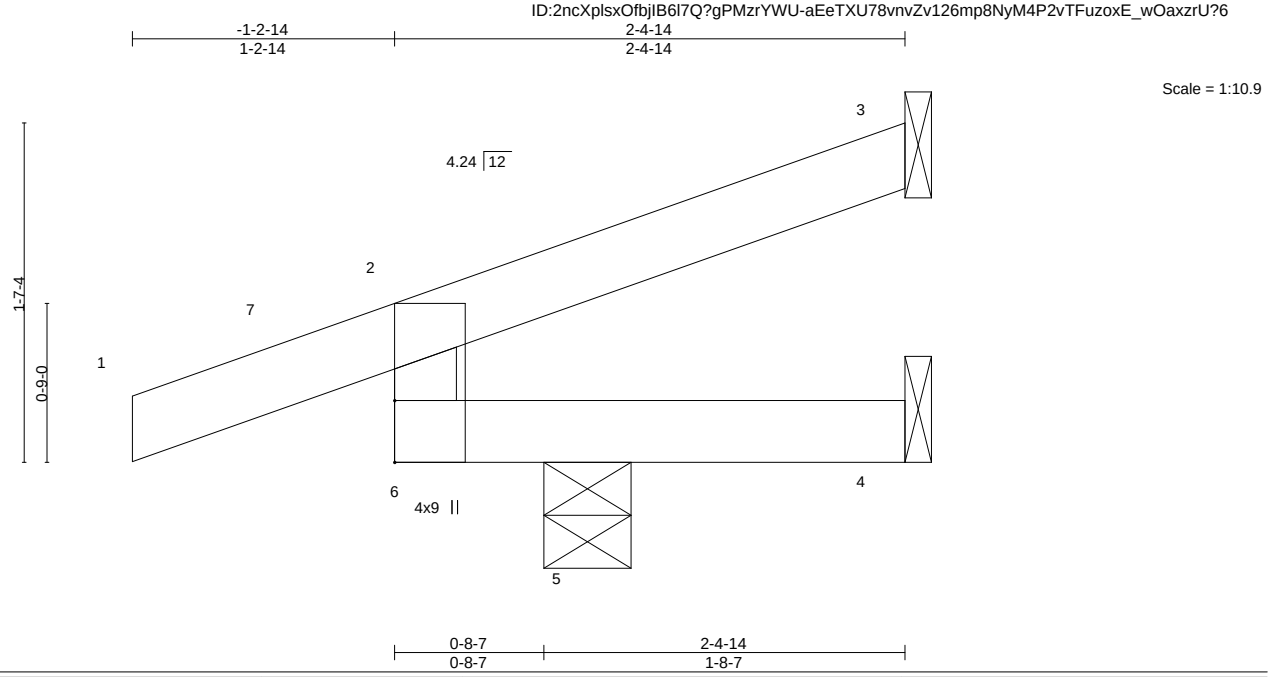


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.11 | Vert(LL) | -0.00 | 4-5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.13 | Vert(CT) | 0.00 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | 0.01 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | Weight: 8 lb | FT = 10% |

**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) 3=Mechanical, 4=Mechanical, 5=0-4-15
Max Horz 5=58(LC 7)
Max Uplift 3=-17(LC 12), 4=-35(LC 1), 5=-166(LC 19)
Max Grav 3=26(LC 1), 4=47(LC 19), 5=150(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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) 3, 4 except (jt=lb) 5=166.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 17 lb down and 5 lb up at -1-2-14, and 17 lb down and 5 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-27(F=-13, B=-13)
Trapezoidal Loads (plf)
Vert: 1=0(F=45, B=45)-to-7=-18(F=36, B=36), 7=0(F=45, B=45)-to-2=-13(F=38, B=38), 2=-13(F=38, B=38)-to-3=-64(F=13, B=13), 6=-3(F=9, B=9)-to-4=-14(F=3, B=3)


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | LAY1 | GABLE | 1 | 1 | I44539555 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:55:59 2021 Page 1
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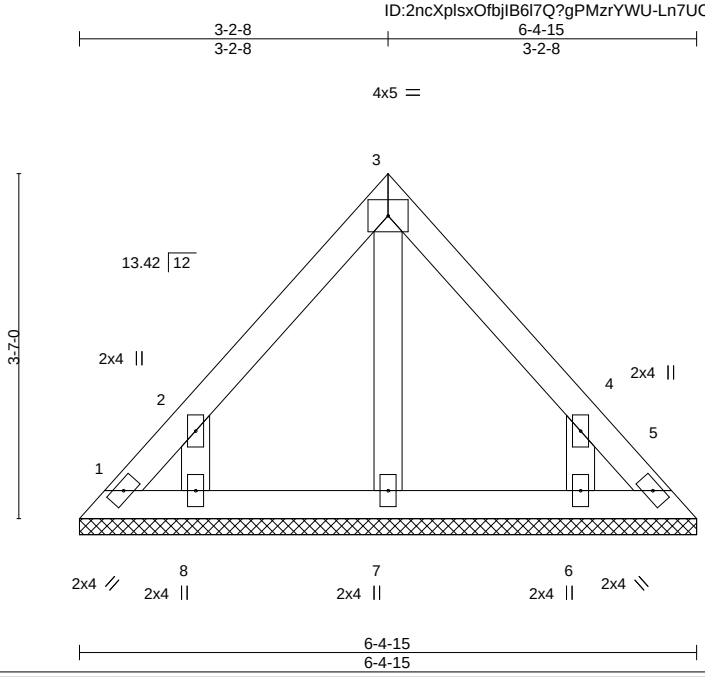


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 22 lb | FT = 10% |

**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 6-4-15.
(lb) - Max Horz 1=-87(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-141(LC 8), 6=-141(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

**NOTES-**
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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=141, 6=141.
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.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | LAY2 | GABLE | 1 | 1 | I44539556 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:00 2021 Page 1
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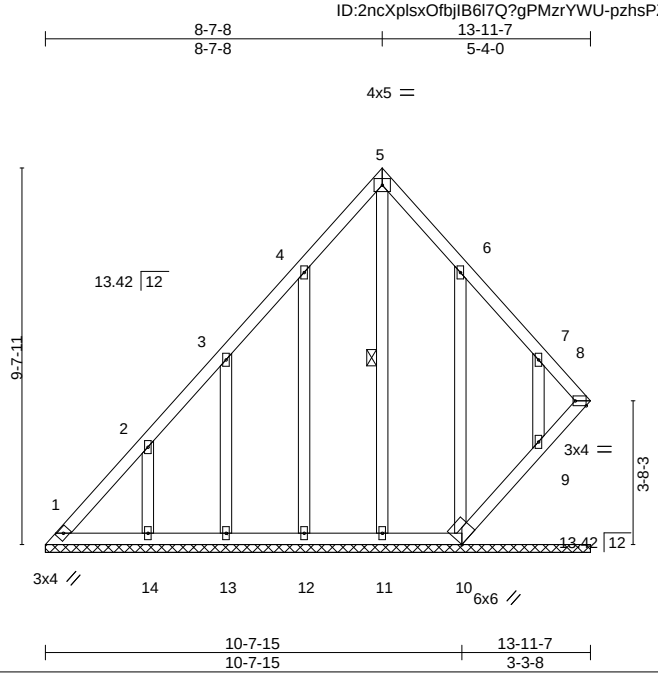


Plate Offsets (X,Y)-- [8:Edge,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.09 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.19 | Horz(CT) | 0.00 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 78 lb | FT = 10% |

**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.
WEBS 1 Row at midpt 5-11

**REACTIONS.** All bearings 13-11-7.
(lb) - Max Horz 1=245(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-113(LC 7), 12=-140(LC 8), 13=-128(LC 8), 14=-168(LC 8), 10=-281(LC 9), 9=-120(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 13, 9 except 8=256(LC 9), 12=263(LC 15), 14=308(LC 15), 10=297(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-350/206

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=113, 12=140, 13=128, 14=168, 10=281, 9=120.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8, 9.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | LAY3 | GABLE | 1 | 1 | I44539557 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:01 2021 Page 1
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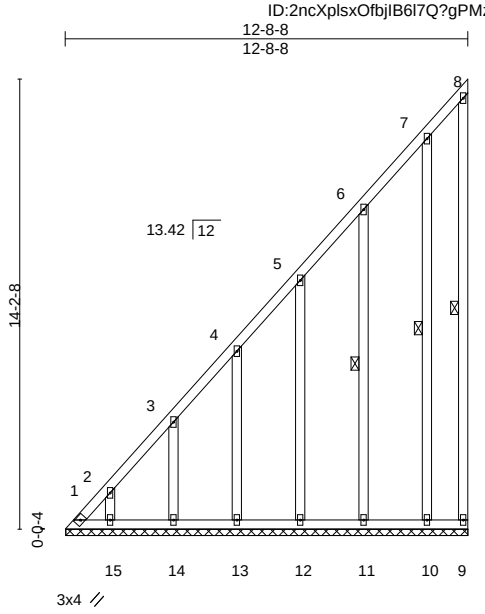


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.09 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.22 | Horz(CT) | -0.00 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 96 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 1 Row at midpt 8-9, 6-11, 7-10 |

**REACTIONS.** All bearings 12-8-4.
(lb) - Max Horz 1=558(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 9 except 1=-210(LC 6), 15=-118(LC 8), 14=-139(LC 8), 13=-135(LC 8), 12=-135(LC 8), 11=-142(LC 8), 10=-109(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 9, 15, 13, 12, 10 except 1=603(LC 8), 14=254(LC 15), 11=258(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-814/334, 2-3=-706/299, 3-4=-565/243, 4-5=-429/191, 5-6=-293/140

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are 2x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 1=210, 15=118, 14=139, 13=135, 12=135, 11=142, 10=109.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | LAY4 | GABLE | 1 | 1 | I44539558 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:02 2021 Page 1
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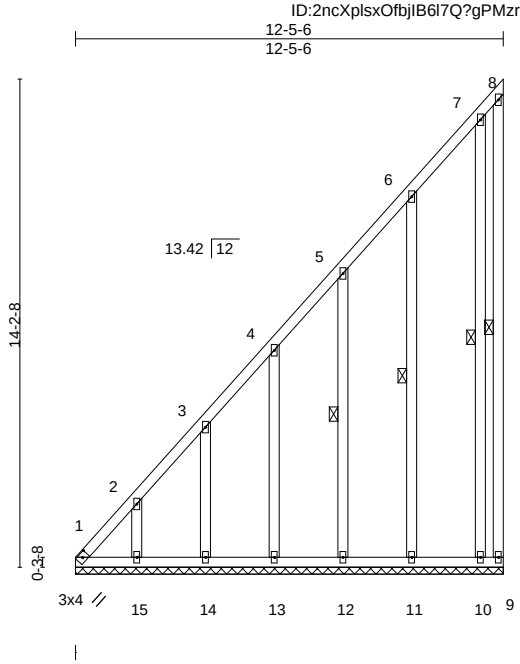


Plate Offsets (X,Y)-- [1:0-2-0,0-1-6]

| 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 | 0.09 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.14 | Horz(CT) | -0.00 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 101 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 1 Row at midpt 8-9, 5-12, 6-11, 7-10 |

**REACTIONS.** All bearings 12-5-6.
(lb) - Max Horz 1=558(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 9, 10 except 1=-191(LC 6), 15=-167(LC 8), 14=-135(LC 8), 13=-136(LC 8), 12=-134(LC 8), 11=-147(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 9, 14, 13, 12, 10 except 1=608(LC 8), 15=259(LC 15), 11=265(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-813/340, 2-3=-661/280, 3-4=-523/227, 4-5=-386/174, 5-6=-250/128

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are 2x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 10 except (jt=lb) 1=191, 15=167, 14=135, 13=136, 12=134, 11=147.
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.


January 27,2021


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | LAY5 | Lay-In Gable | 1 | 1 | I44539559 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:03 2021 Page 1
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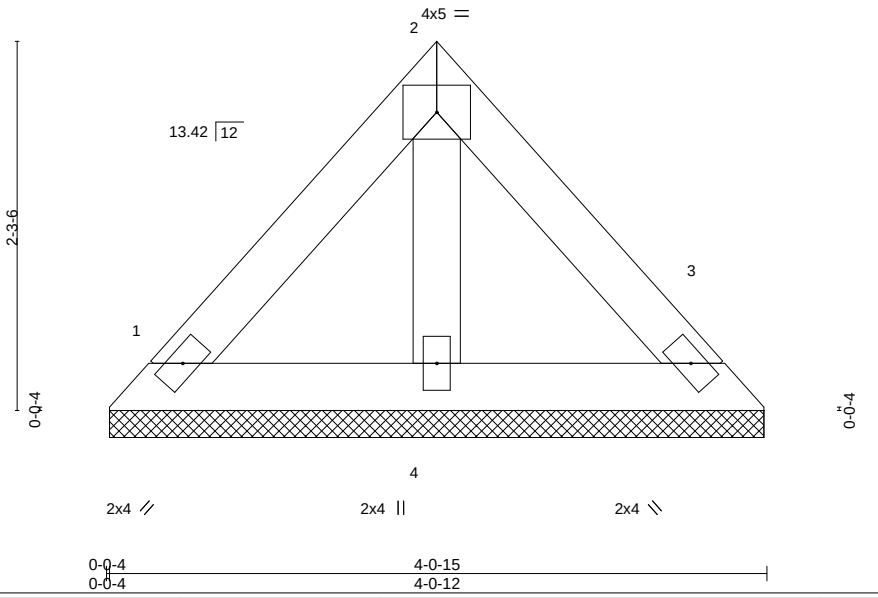


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.01 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 12 lb | FT = 10% |

**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 4-0-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=4-0-8, 3=4-0-8, 4=4-0-8
Max Horz 1=-52(LC 4)
Max Uplift 1=-25(LC 9), 3=-22(LC 9)
Max Grav 1=120(LC 1), 3=120(LC 1), 4=137(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | LAY6 | GABLE | 1 | 1 | I44539560 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:04 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-hkwNFwHIrnYjz1Xc02tQ_56dT8wdRrcsDWZaWgzrU_v

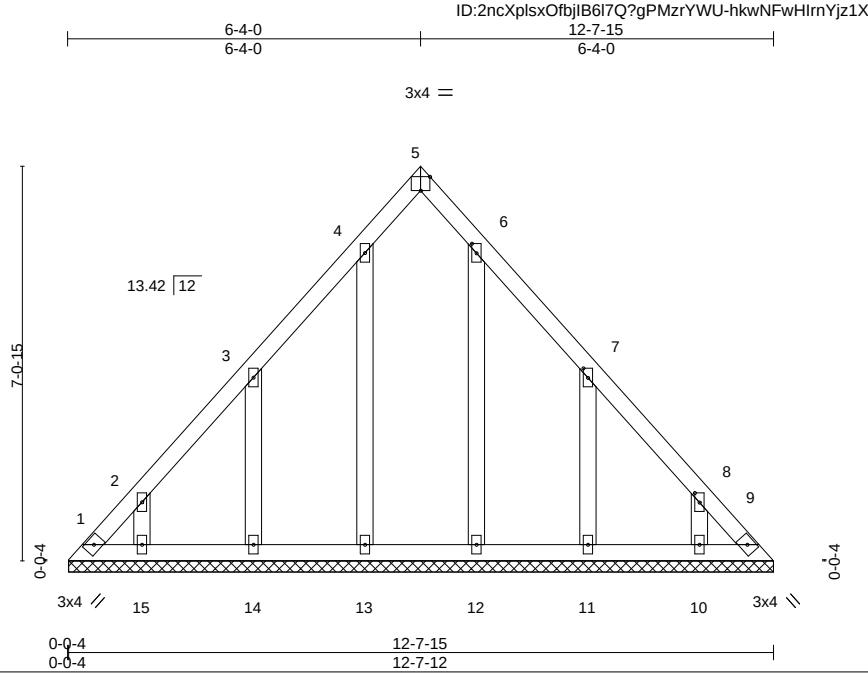


Plate Offsets (X,Y)-- [5:Edge,0-3-0], [6:0-2-1,0-1-0], [7:0-2-1,0-1-0], [8:0-2-1,0-1-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.07 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.00 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 57 lb | FT = 10% |

**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 12-7-11.
(lb) - Max Horz 1=-181(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 13, 12 except 15=-112(LC 8), 14=-155(LC 8), 11=-157(LC 9), 10=-111(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 15, 13, 12, 10 except 14=263(LC 15), 11=265(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-325/158, 8-9=-315/143

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 13, 12 except (jt=lb) 15=112, 14=155, 11=157, 10=111.
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.


January 27,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | LAY7 | GABLE | 1 | 1 | I44539561 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:05 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-9wUlTGIwc5gabB6oamOfXJfo4YGxAG4?SAJ727zrU_u

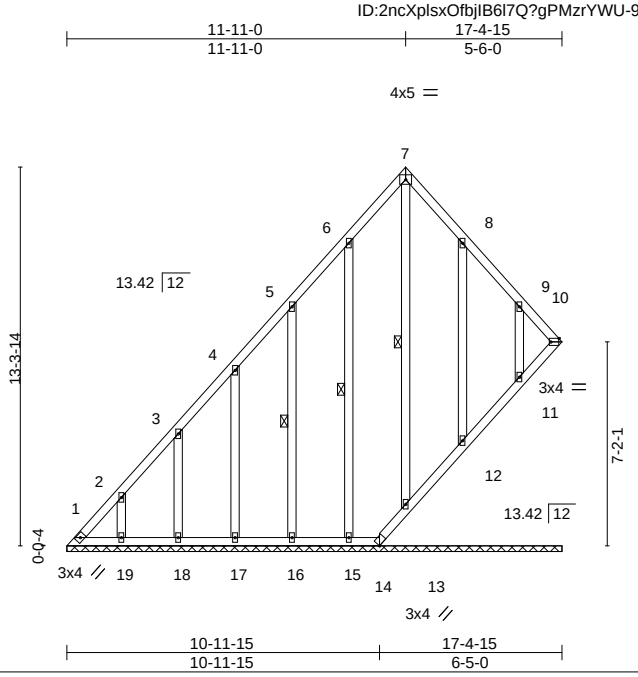


Plate Offsets (X,Y)-- [10:Edge,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.20 | Horz(CT) | 0.01 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 112 lb | FT = 10% |

**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.
WEBS 1 Row at midpt 7-13, 6-15, 5-16

**REACTIONS.** All bearings 17-4-15.
(lb) - Max Horz 1=391(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-144(LC 6), 10=-120(LC 5), 14=-126(LC 9), 15=-136(LC 8), 16=-139(LC 8), 17=-135(LC 8), 18=-136(LC 8), 19=-135(LC 8), 12=-134(LC 9), 11=-130(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 10, 14, 13, 16, 17, 18, 19, 11 except 1=405(LC 8), 15=251(LC 15), 12=264(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-557/280, 2-3=-430/232, 3-4=-292/178

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 1, 120 lb uplift at joint 10, 126 lb uplift at joint 14, 136 lb uplift at joint 15, 139 lb uplift at joint 16, 135 lb uplift at joint 17, 136 lb uplift at joint 18, 135 lb uplift at joint 19, 134 lb uplift at joint 12 and 130 lb uplift at joint 11.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10, 13, 12, 11.
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.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | LAY8 | GABLE | 1 | 1 | I44539562 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:06 2021 Page 1
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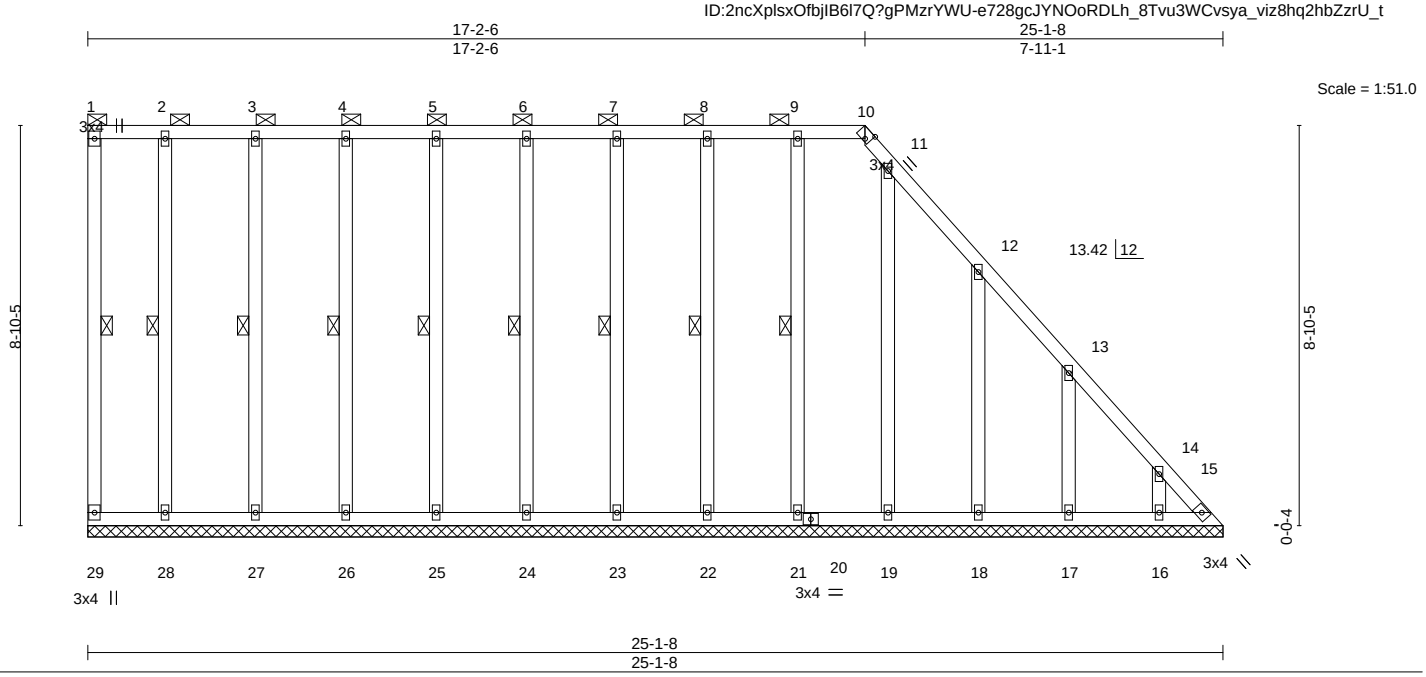


Plate Offsets (X,Y)-- [10:0-1-6,Edge]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.33 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.18 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.23 | Horz(CT) | 0.01 | 15 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 166 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-29, 2-28, 3-27, 4-26, 5-25, 6-24, 7-23, 8-22, 9-21

**REACTIONS.** All bearings 25-1-8.
(lb) - Max Horz 29=-340(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 29, 28, 27, 26, 25, 24, 23, 22, 21 except 15=-167(LC 7), 19=-117(LC 4), 18=-154(LC 9), 17=-135(LC 9), 16=-119(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 29, 28, 27, 26, 25, 24, 23, 22, 21, 19, 18, 16 except 15=291(LC 4), 17=254(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 11-12=-252/162, 12-13=-277/185, 13-14=-332/241, 14-15=-391/277
BOT CHORD 28-29=-176/268, 27-28=-176/268, 26-27=-176/268, 25-26=-176/268, 24-25=-176/268, 23-24=-176/268, 22-23=-176/268, 21-22=-176/268, 19-21=-176/268, 18-19=-176/268, 17-18=-176/268, 16-17=-176/268, 15-16=-176/268

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 28, 27, 26, 25, 24, 23, 22, 21 except (jt=lb) 15=167, 19=117, 18=154, 17=135, 16=119.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | LAY9 | GABLE | 1 | 1 | I44539563 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:07 2021 Page 1
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9-7-14 2-8-14 4-8-12

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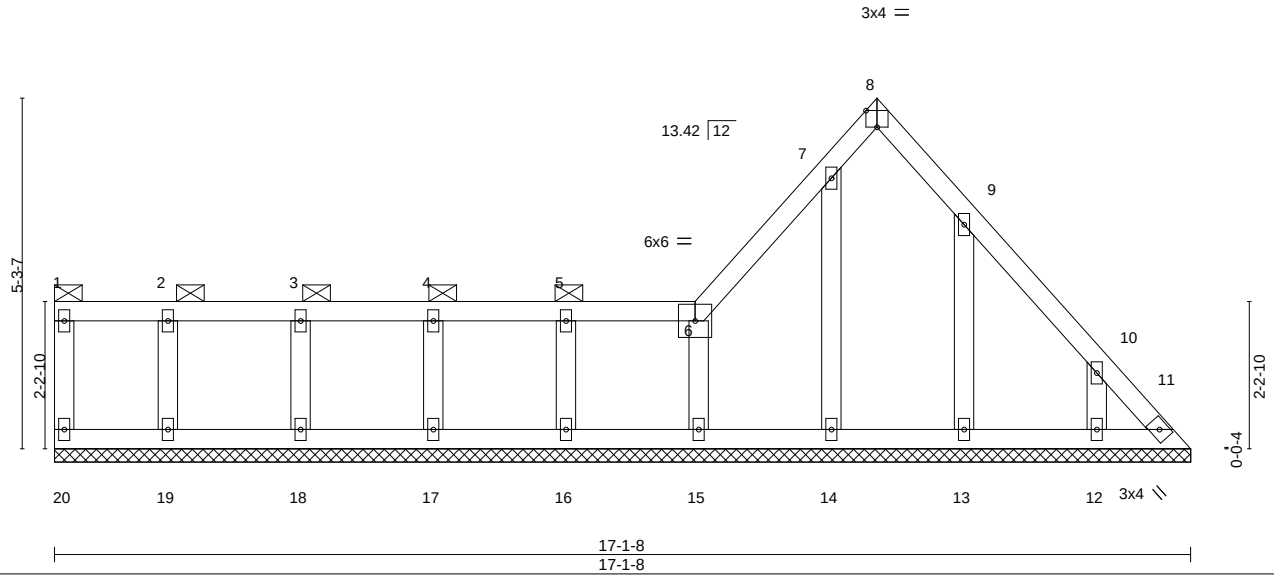


Plate Offsets (X,Y)-- [8:Edge,0-3-0]

| 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 | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.00 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 64 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 17-1-8.
(lb) - Max Horz 20=-159(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 13 except 12=-140(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 14, 12 except 13=266(LC 16)

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 11, 19, 18, 17, 16, 15, 13 except (jt=lb) 12=140.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V1 | Valley | 1 | 1 | I44539564 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:08 2021 Page 1
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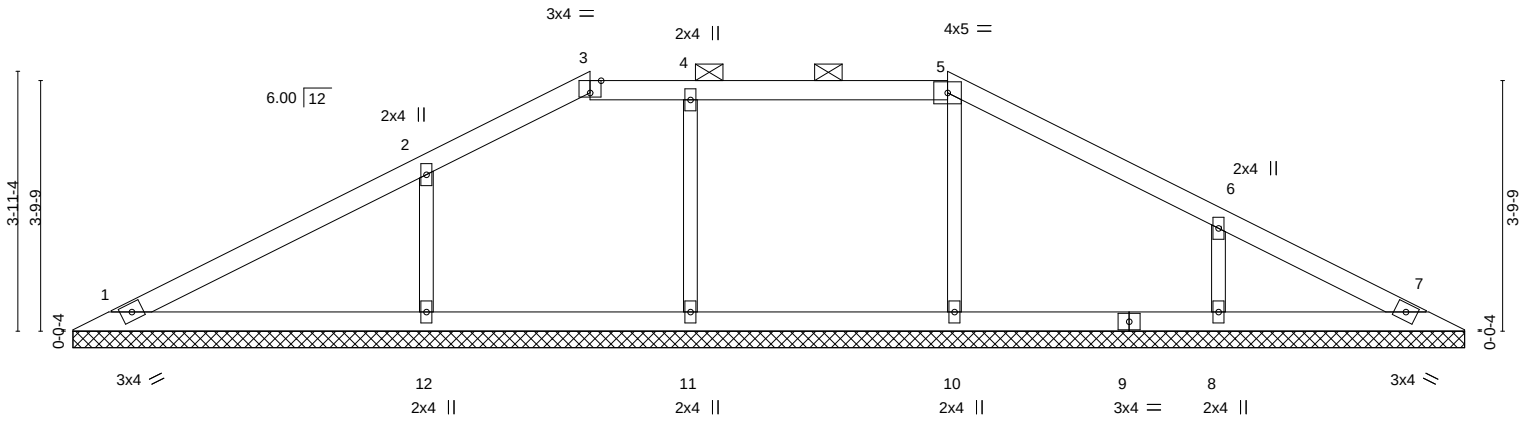
7-10-8 | 5-5-0 | 7-10-8

Scale = 1:34.9




0-0-8 | 21-2-0
0-0-8 | 21-1-8

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

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.34 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.16 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.11 | Horz(CT) | 0.00 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 57 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

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

**REACTIONS.** All bearings 21-1-0.
(lb) - Max Horz 1=-63(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 11 except 12=-125(LC 8), 8=-122(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=410(LC 22), 11=415(LC 21), 12=550(LC 21), 8=464(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 5-10=-329/76, 4-11=-347/105, 2-12=-432/176, 6-8=-380/166

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 10, 11 except (jt=lb) 12=125, 8=122.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V2 | Valley | 1 | 1 | I44539565 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:14 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-PfX9LLPaVspIAaIXc92mOCXHhAJ2nM1KX3_6t5zrU_I

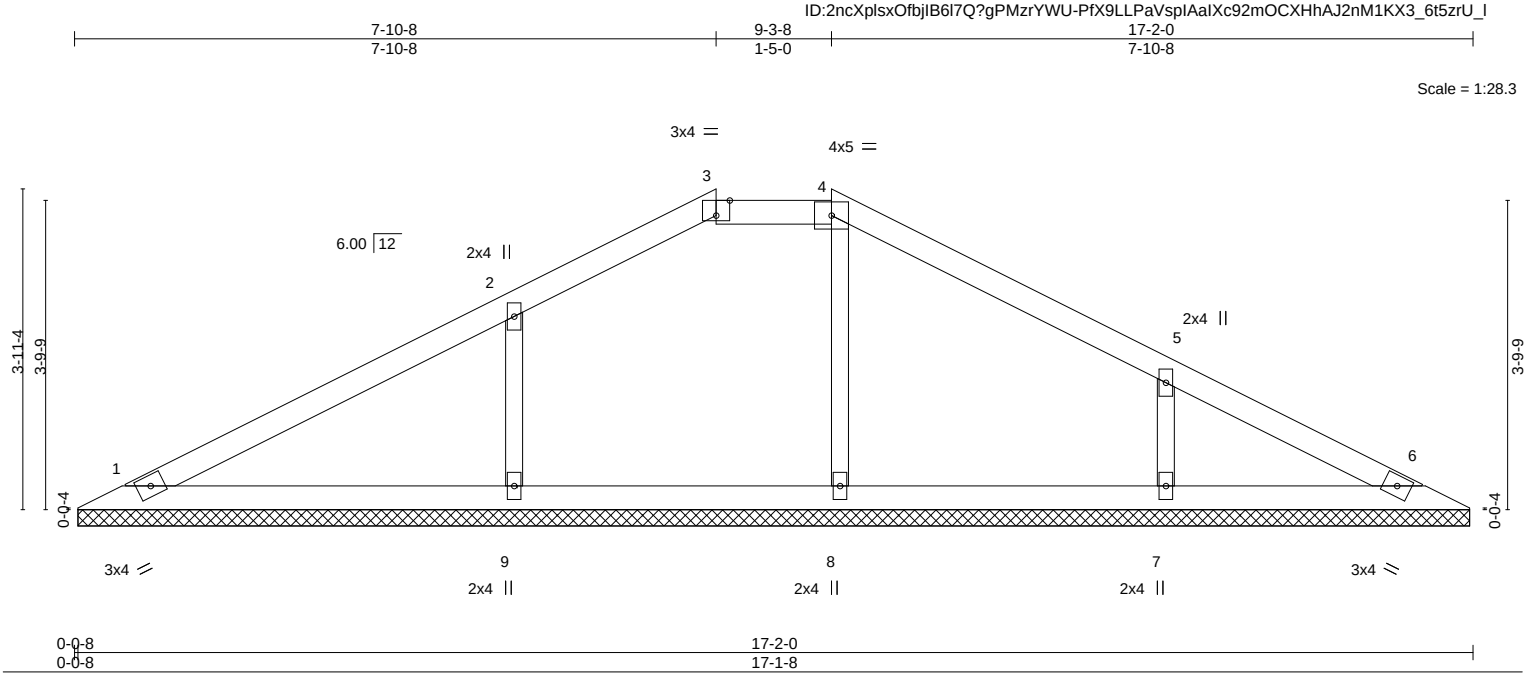


Plate Offsets (X,Y)-- [3:0-2-0,Edge]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.34 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.16 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.00 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 45 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

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

**REACTIONS.** All bearings 17-1-0.
(lb) - Max Horz 1=-63(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 8 except 9=-125(LC 8), 7=-124(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 6 except 1=258(LC 21), 8=326(LC 22), 9=558(LC 21), 7=471(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-8=-255/55, 2-9=-440/176, 5-7=-384/168

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8 except (jt=lb) 9=125, 7=124.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V3 | Valley | 1 | 1 | I44539566 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:14 2021 Page 1
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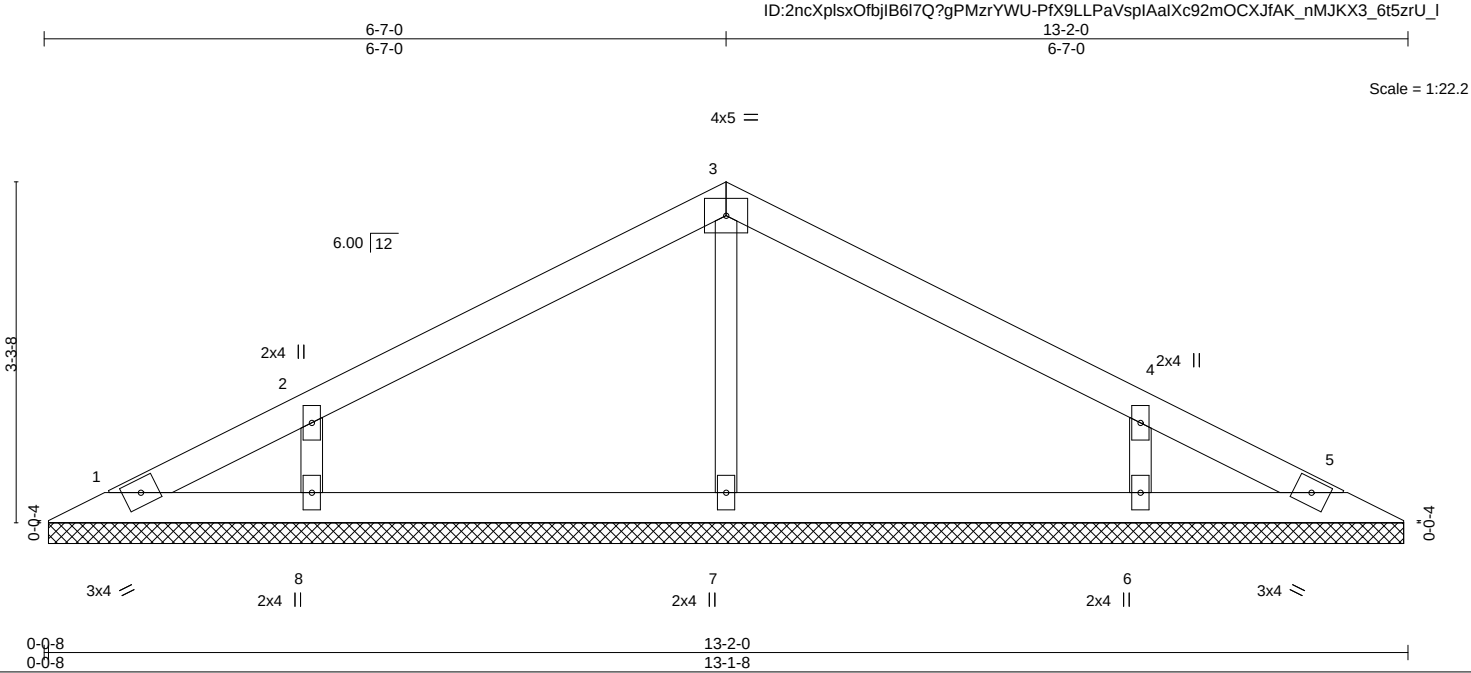


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.21 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.08 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 33 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

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

**REACTIONS.** All bearings 13-1-0.
(lb) - Max Horz 1=-53(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-109(LC 8), 6=-109(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=379(LC 1), 8=412(LC 21), 6=412(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-7=-294/42, 2-8=-347/150, 4-6=-347/150

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=109, 6=109.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V4 | Valley | 1 | 1 | I44539567 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:15 2021 Page 1
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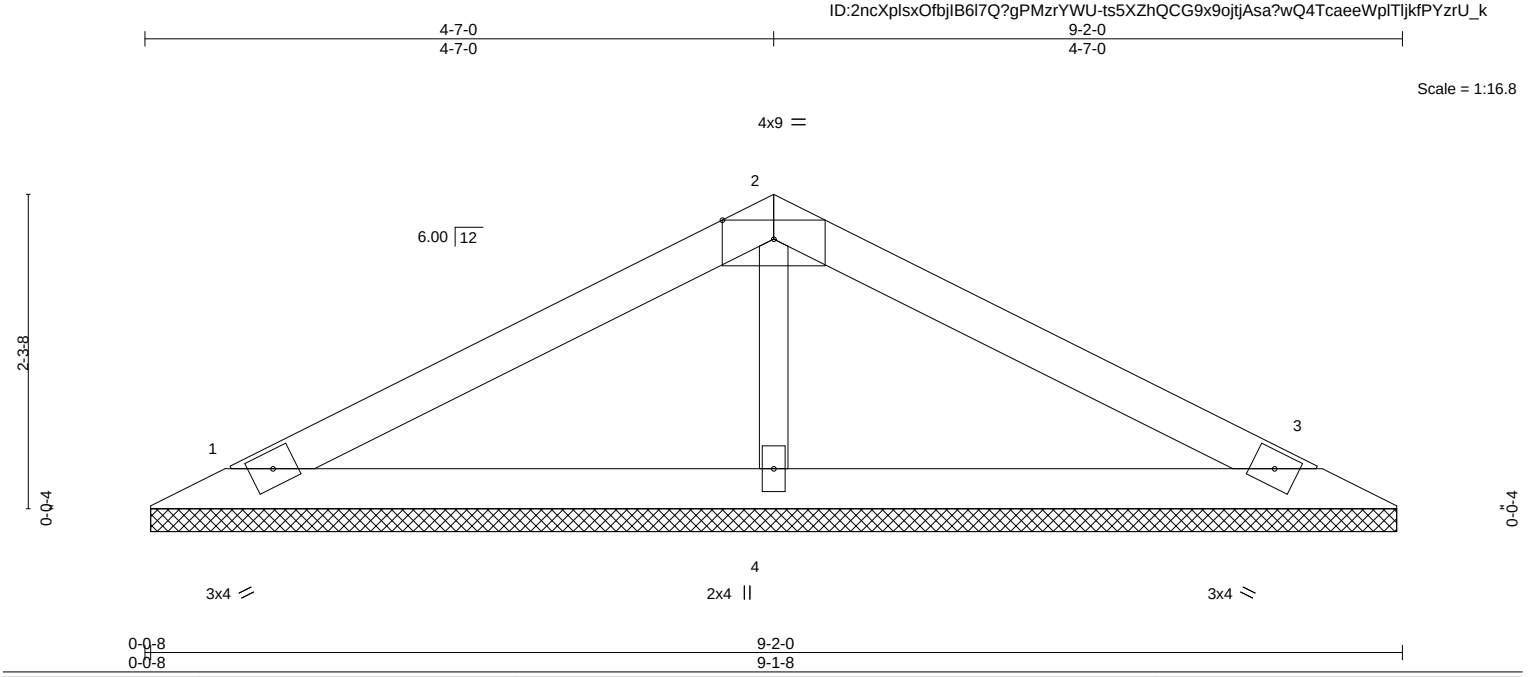


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.26 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.14 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 22 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

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

**REACTIONS.** (size) 1=9-1-0, 3=9-1-0, 4=9-1-0
Max Horz 1=35(LC 12)
Max Uplift 1=-34(LC 8), 3=-41(LC 9), 4=-21(LC 8)
Max Grav 1=207(LC 21), 3=207(LC 22), 4=457(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-330/67

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
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.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V5 | Valley | 1 | 1 | I44539568 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:16 2021 Page 1
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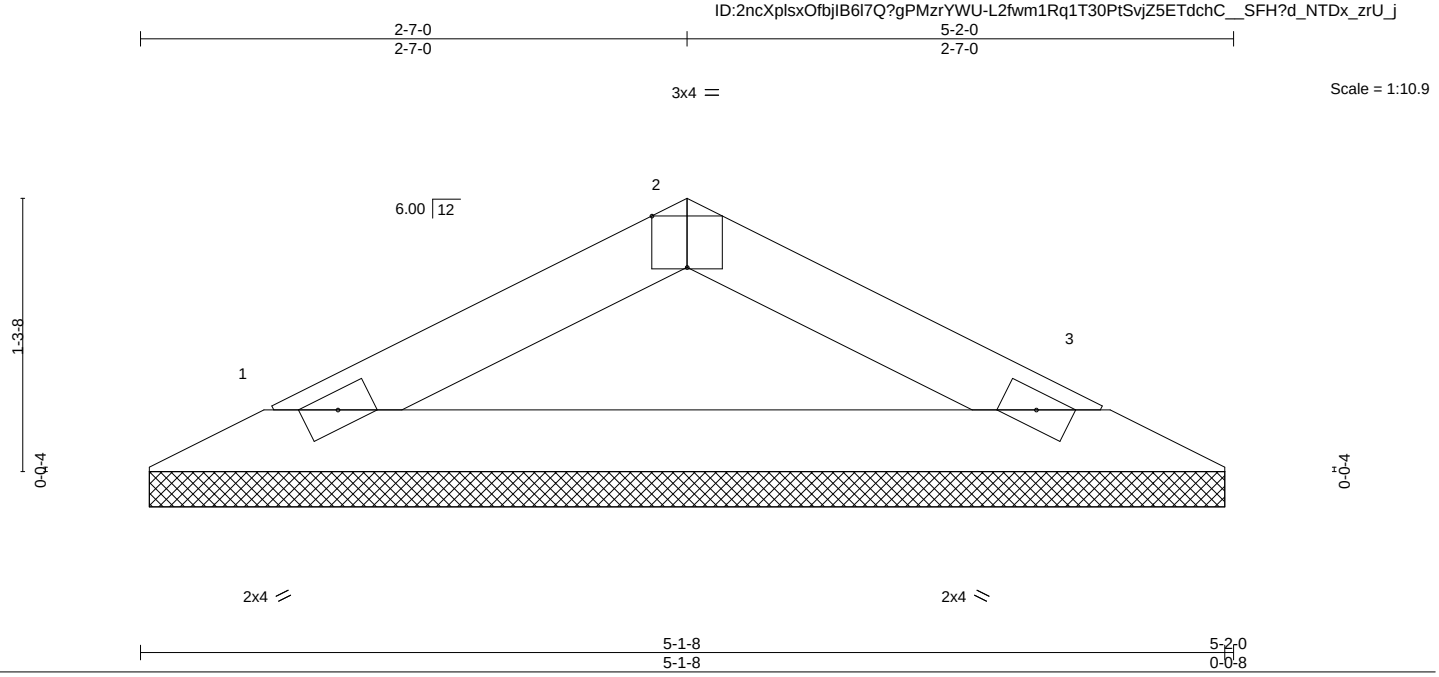


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.17 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 11 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-1-0, 3=5-1-0
Max Horz 1=17(LC 12)
Max Uplift 1=-22(LC 8), 3=-22(LC 9)
Max Grav 1=215(LC 1), 3=215(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V6 | Valley | 1 | 1 | I44539569 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:17 2021 Page 1
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2-0-12
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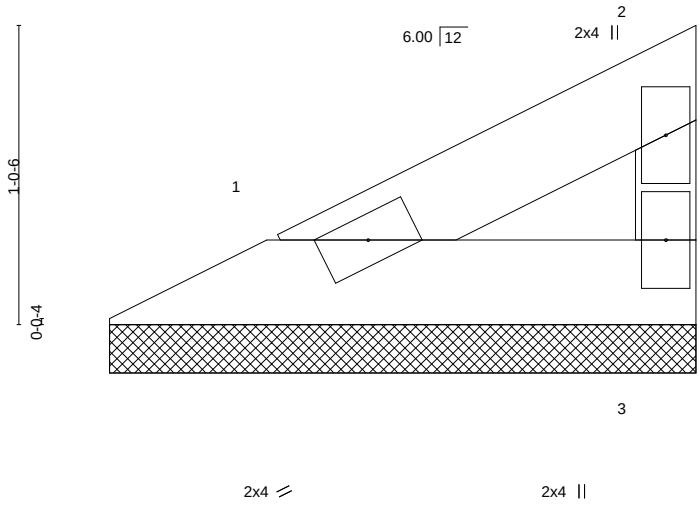


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.04 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.01 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 4 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-0-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-0-4, 3=2-0-4
Max Horz 1=28(LC 5)
Max Uplift 1=-8(LC 8), 3=-15(LC 8)
Max Grav 1=73(LC 1), 3=73(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V7 | Valley | 1 | 1 | I44539570 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:17 2021 Page 1
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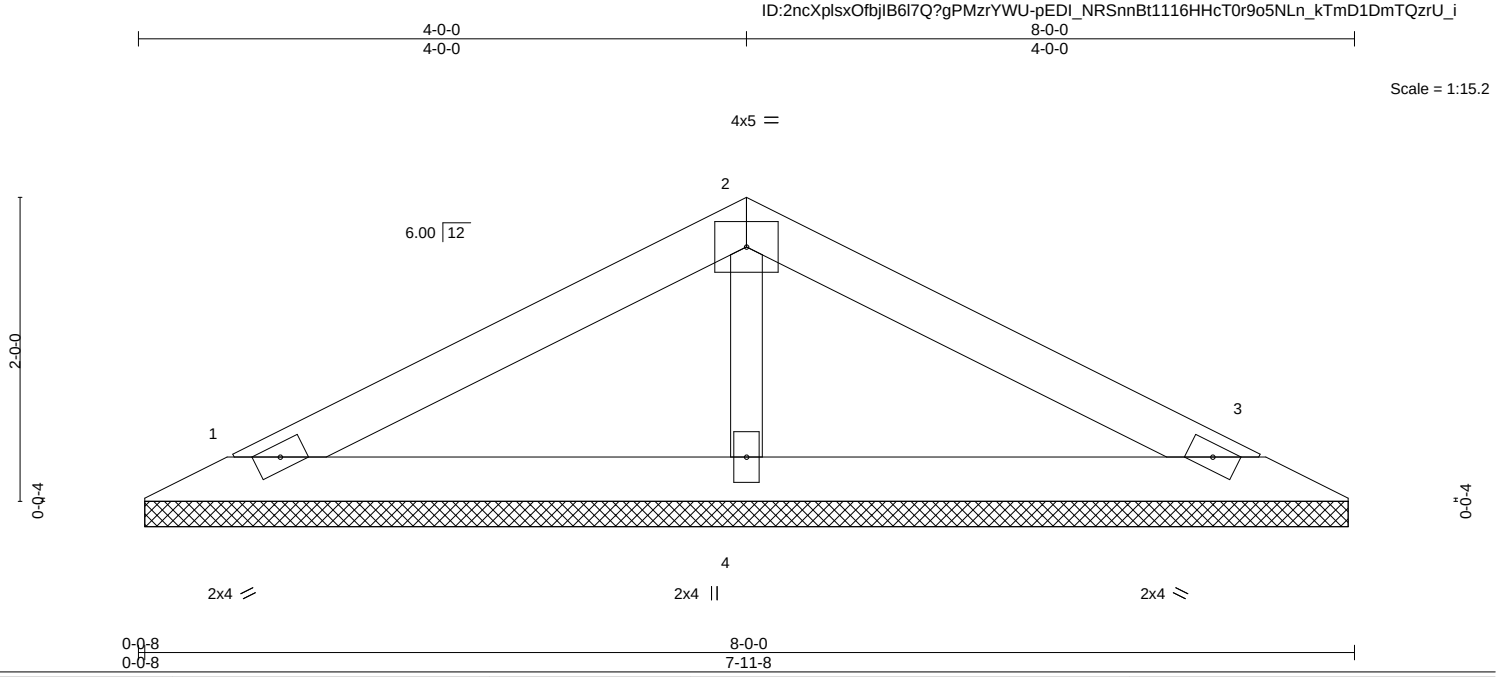


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.26 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 19 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

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

**REACTIONS.** (size) 1=7-11-0, 3=7-11-0, 4=7-11-0
Max Horz 1=-30(LC 13)
Max Uplift 1=-36(LC 8), 3=-42(LC 9), 4=-4(LC 8)
Max Grav 1=196(LC 1), 3=196(LC 1), 4=349(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-264/54

**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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
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.


January 27,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V8 | Valley | 1 | 1 | I44539571 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:18 2021 Page 1
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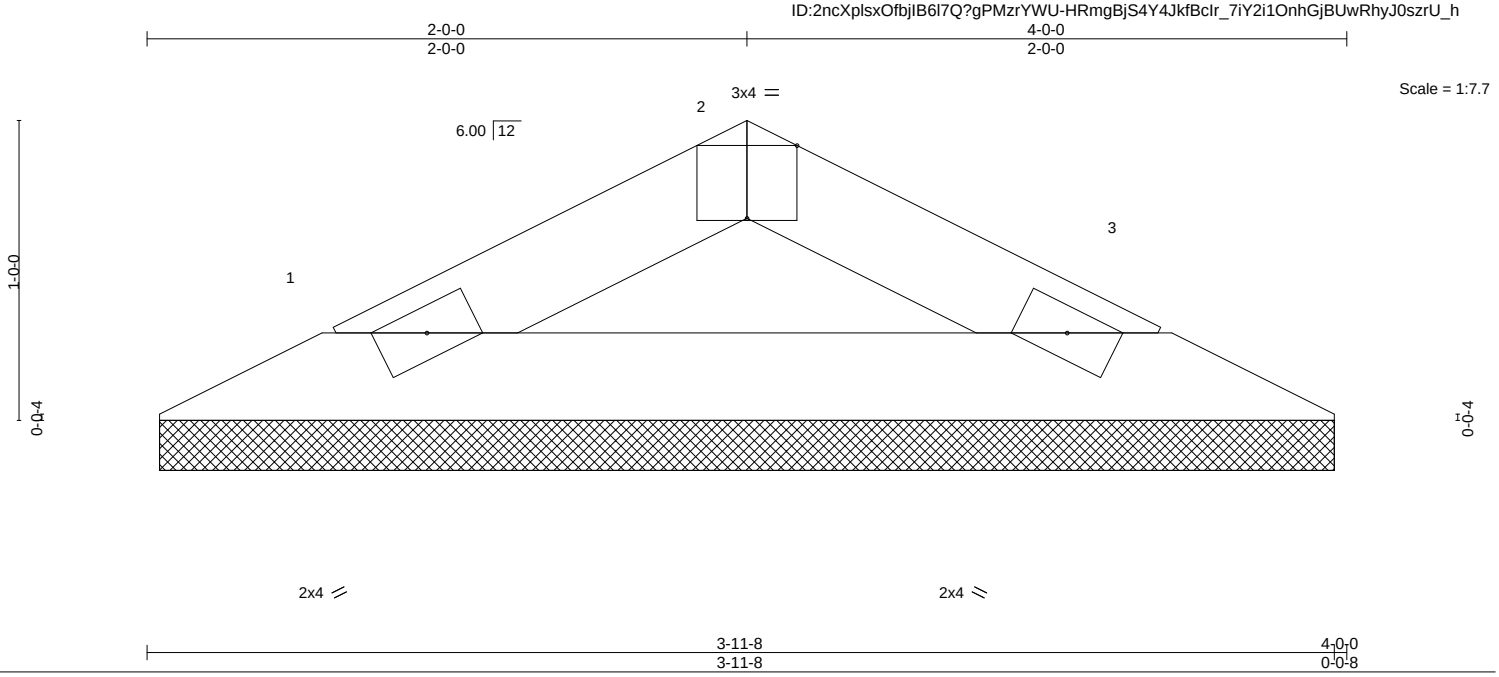


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.04 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 8 lb | FT = 10% |

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

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

**REACTIONS.** (size) 1=3-11-0, 3=3-11-0
Max Horz 1=12(LC 12)
Max Uplift 1=-15(LC 8), 3=-15(LC 9)
Max Grav 1=151(LC 1), 3=151(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V9 | Valley | 1 | 1 | I44539572 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:18 2021 Page 1
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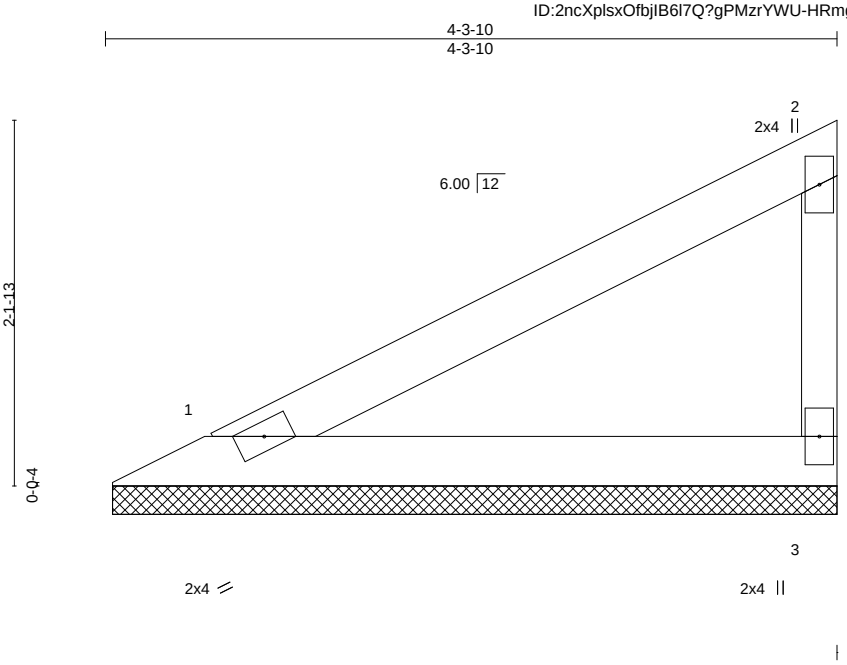


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.30 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.13 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 11 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 4-3-10 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (size) 1=4-3-2, 3=4-3-2
Max Horz 1=75(LC 5)
Max Uplift 1=-21(LC 8), 3=-39(LC 8)
Max Grav 1=196(LC 1), 3=196(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V10 | Valley | 1 | 1 | I44539573 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:09 2021 Page 1
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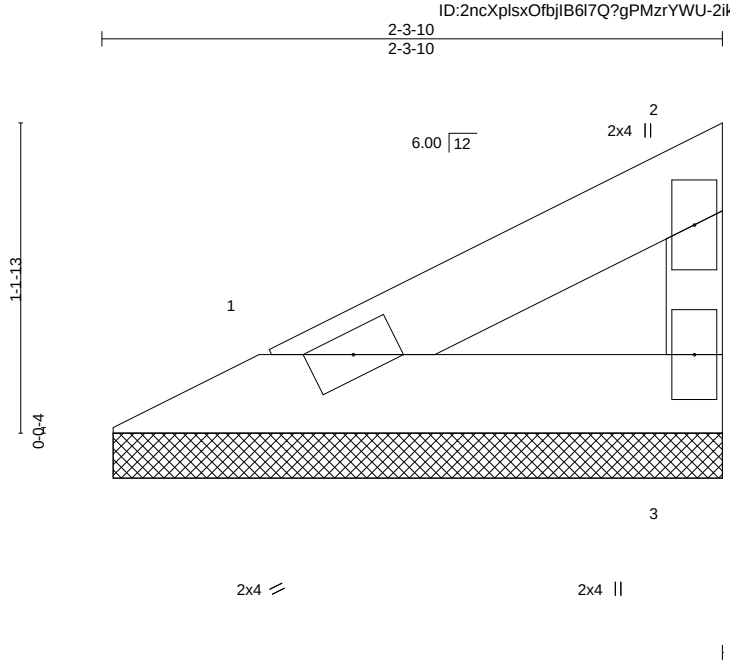


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.05 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 5 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-3-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-3-2, 3=2-3-2
Max Horz 1=33(LC 5)
Max Uplift 1=-9(LC 8), 3=-17(LC 8)
Max Grav 1=86(LC 1), 3=86(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V11 | Valley | 1 | 1 | I44539574 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:10 2021 Page 1
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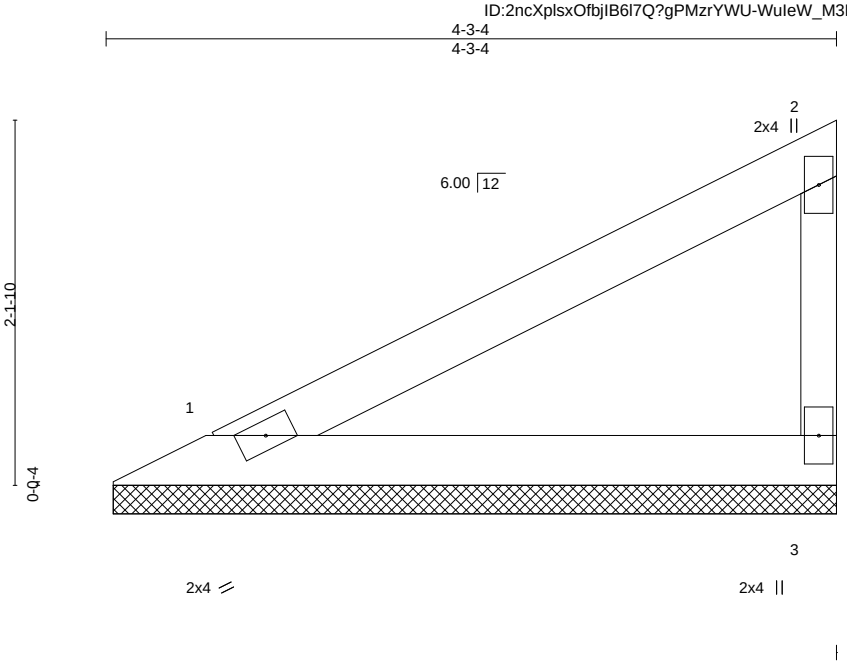


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.29 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.12 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 11 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 4-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=4-2-12, 3=4-2-12
Max Horz 1=74(LC 7)
Max Uplift 1=-20(LC 8), 3=-39(LC 8)
Max Grav 1=195(LC 1), 3=195(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V12 | Valley | 1 | 1 | I44539575 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:11 2021 Page 1
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2-3-4

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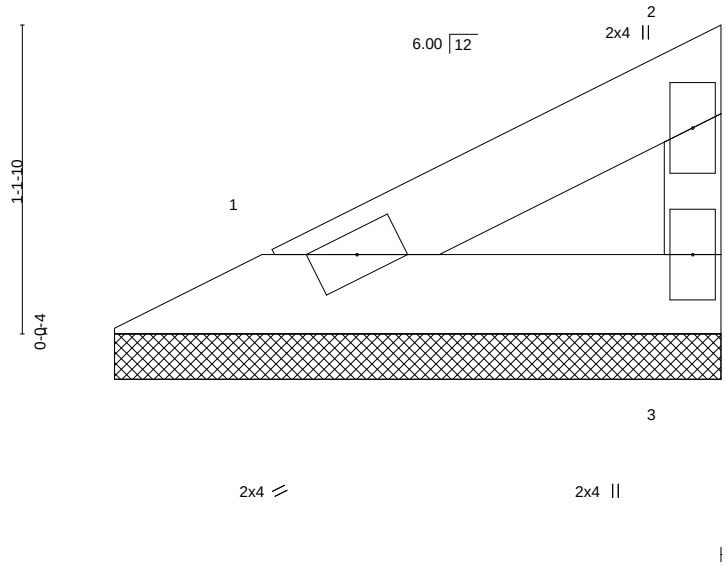


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.05 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 5 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-2-12, 3=2-2-12
Max Horz 1=32(LC 7)
Max Uplift 1=-9(LC 8), 3=-17(LC 8)
Max Grav 1=85(LC 1), 3=85(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V13 | Valley | 1 | 1 | I44539576 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:11 2021 Page 1
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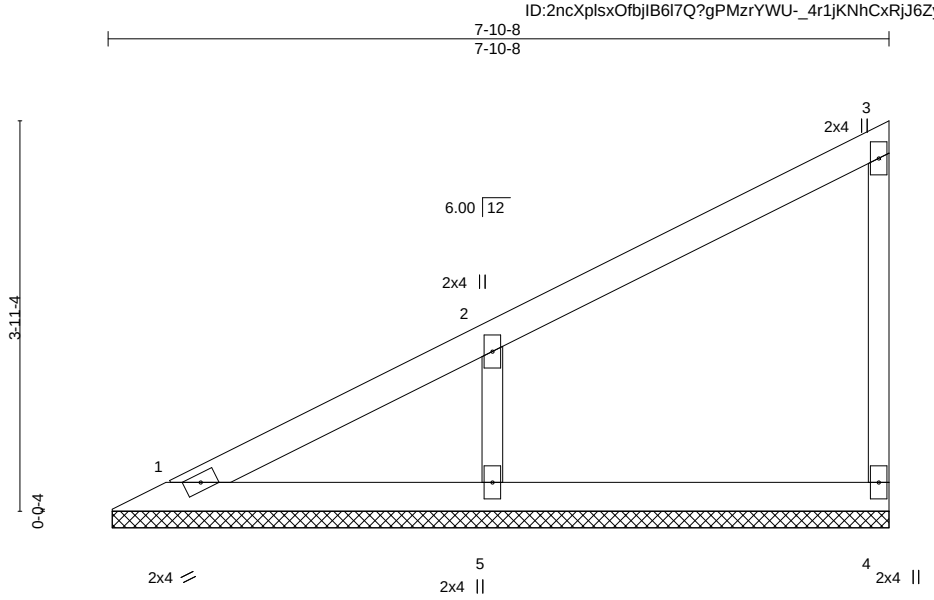


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.27 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.11 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.08 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 22 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

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

**REACTIONS.** (size) 1=7-10-0, 4=7-10-0, 5=7-10-0
Max Horz 1=149(LC 5)
Max Uplift 4=-26(LC 5), 5=-121(LC 8)
Max Grav 1=132(LC 16), 4=168(LC 1), 5=494(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-404/175

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=121.
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.


January 27,2021

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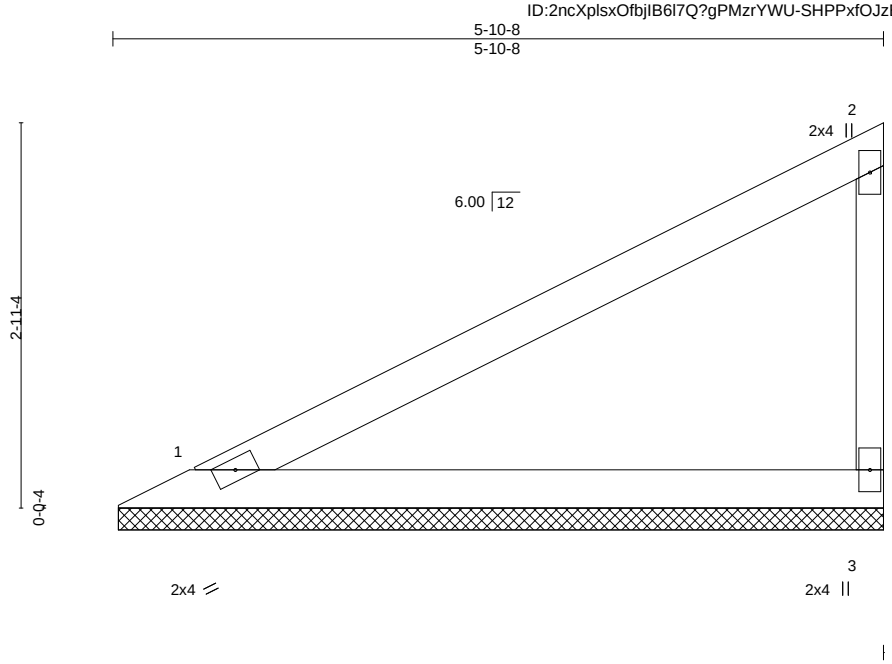
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V14 | Valley | 1 | 1 | I44539577 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:12 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-SHPPxfOJzEZaxG88Uk0lJnSsAMbpJT?13lV?oDzrU_n




| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.66 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.28 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 15 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

**REACTIONS.** (size) 1=5-10-0, 3=5-10-0
Max Horz 1=107(LC 5)
Max Uplift 1=-30(LC 8), 3=-57(LC 8)
Max Grav 1=283(LC 1), 3=283(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


January 27,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V15 | Valley | 1 | 1 | I44539578 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:12 2021 Page 1
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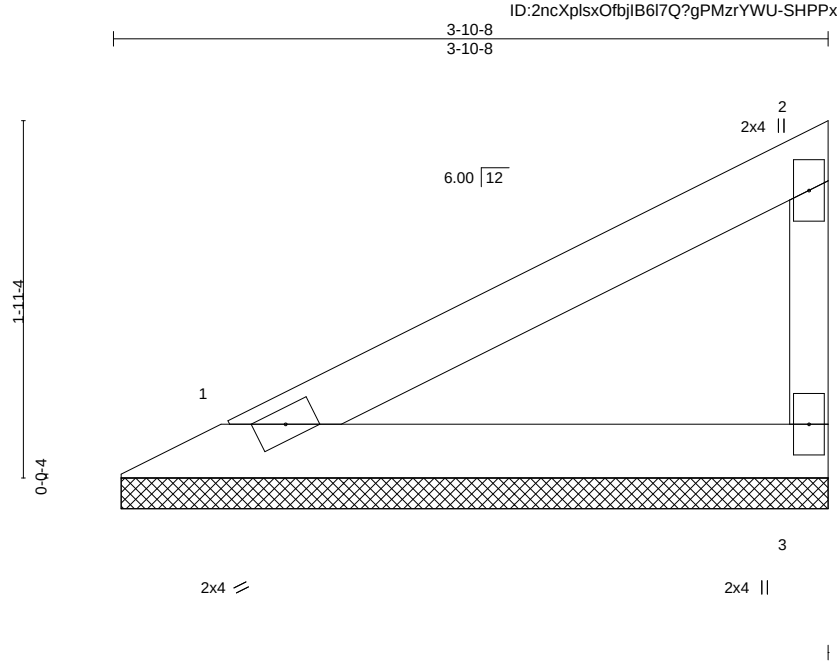


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.23 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 10 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-10-0, 3=3-10-0
Max Horz 1=66(LC 5)
Max Uplift 1=-18(LC 8), 3=-35(LC 8)
Max Grav 1=173(LC 1), 3=173(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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| Job | Truss | Truss Type | Qty | Ply | Lot 44 W1 |
|---|---|---|---|---|---|
| 210257 | V16 | Valley | 1 | 1 | I44539579 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Jan 26 12:56:13 2021 Page 1
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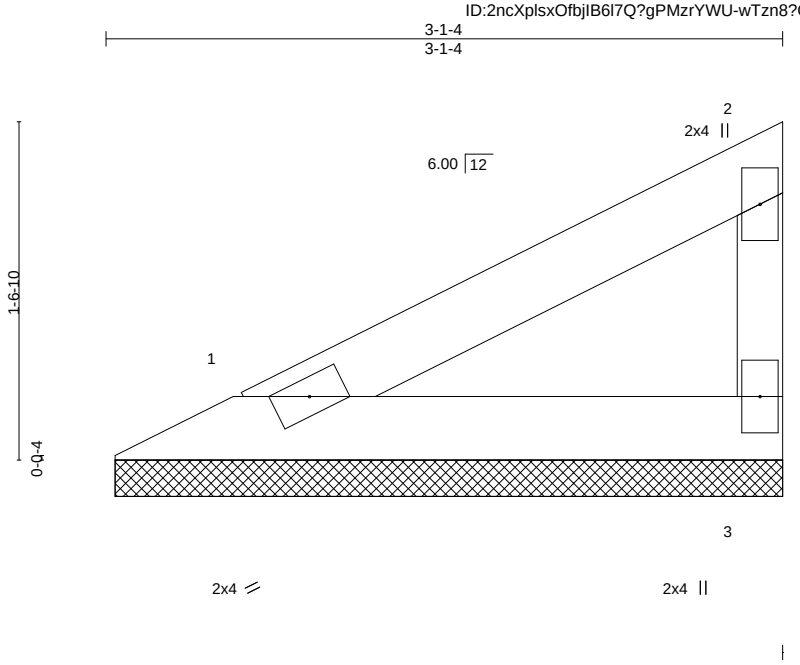


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.12 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 20.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 7 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-0-12, 3=3-0-12
Max Horz 1=50(LC 5)
Max Uplift 1=-14(LC 8), 3=-26(LC 8)
Max Grav 1=130(LC 1), 3=130(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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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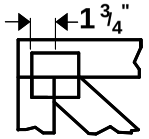
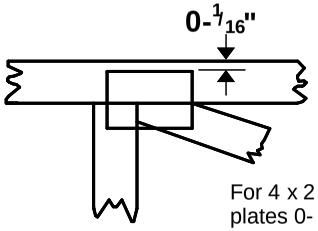
# Symbols

## 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.

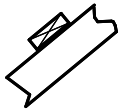
*** Plate location details available in MiTek 20/20 software or upon request.**

## PLATE SIZE

4 x 4

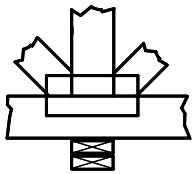
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

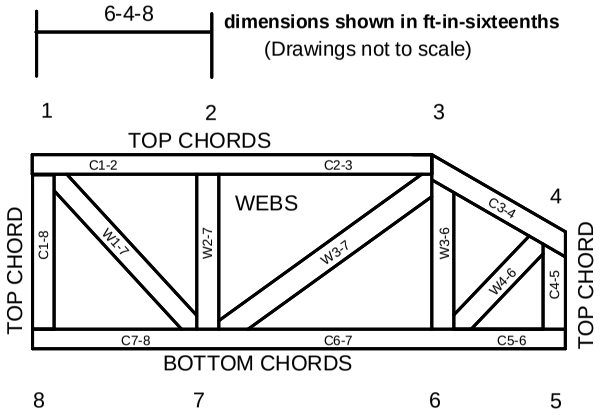


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

**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.

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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.