MiTek®

RE: P240574-01 - Roof - HR Lot 193

MiTek, Inc.
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

**Site Information:**

Project Customer: Clayton Properties Project Name: Riverside - Modern Farmhouse 3car
Lot/Block: 193 Subdivision: Hawthorne Ridge
Model:
Address: 3216 SW Arboridge Cir
City: Lee's Summit State: MO

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

Design Code: IRC2018/TPI2014
Design Program: MiTek 20/20 8.6
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Design Method: MWFRS (Directional)/C-C hybrid Wind ASCE 7-16
Roof Load: 45.0 psf
Floor Load: N/A psf

Mean Roof Height (feet): 25
Exposure Category: B

| No. | Seal# | Truss Name | Date |
|---|---|---|---|
| 1 | I66371519 | B1 | 6/21/24 |
| 2 | I66371520 | B2 | 6/21/24 |
| 3 | I66371521 | C1 | 6/21/24 |
| 4 | I66371522 | C2 | 6/21/24 |
| 5 | I66371523 | D1 | 6/21/24 |
| 6 | I66371524 | D2 | 6/21/24 |
| 7 | I66371525 | E1 | 6/21/24 |
| 8 | I66371526 | E2 | 6/21/24 |
| 9 | I66371527 | E3 | 6/21/24 |
| 10 | I66371528 | G1 | 6/21/24 |
| 11 | I66371529 | G2 | 6/21/24 |
| 12 | I66371530 | G3 | 6/21/24 |
| 13 | I66371531 | H1 | 6/21/24 |
| 14 | I66371532 | H2 | 6/21/24 |
| 15 | I66371533 | H3 | 6/21/24 |
| 16 | I66371534 | H4 | 6/21/24 |
| 17 | I66371535 | H5 | 6/21/24 |
| 18 | I66371536 | H8 | 6/21/24 |
| 19 | I66371537 | R1 | 6/21/24 |
| 20 | I66371538 | VE1 | 6/21/24 |
| 21 | I66371539 | VE2 | 6/21/24 |
| 22 | I66371540 | VE3 | 6/21/24 |
| 23 | I66371541 | VE7 | 6/21/24 |
| 24 | I66371542 | VE8 | 6/21/24 |
| 25 | I66371543 | VE9 | 6/21/24 |
| 26 | I66371544 | VG10 | 6/21/24 |
| 27 | I66371545 | VG11 | 6/21/24 |
| 28 | I66371546 | VG12 | 6/21/24 |
| 29 | I66371547 | VG13 | 6/21/24 |
| 30 | I66371548 | VG14 | 6/21/24 |

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Premier Building Supply (Springhill, KS)20300 W 207th Street.

Truss Design Engineer's Name: Sevier, Scott
My license renewal date for the state of Missouri is December 31, 2025.

**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.


June 21,2024
Sevier, Scott

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/29/2024 6:57:01

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | B1 | Monopitch | 7 | 1 | I66371519 |
| | | | | | Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 E Apr 26 2024 Print: 8.630 E Apr 26 2024 MiTek Industries, Inc. Fri Jun 21 07:50:51
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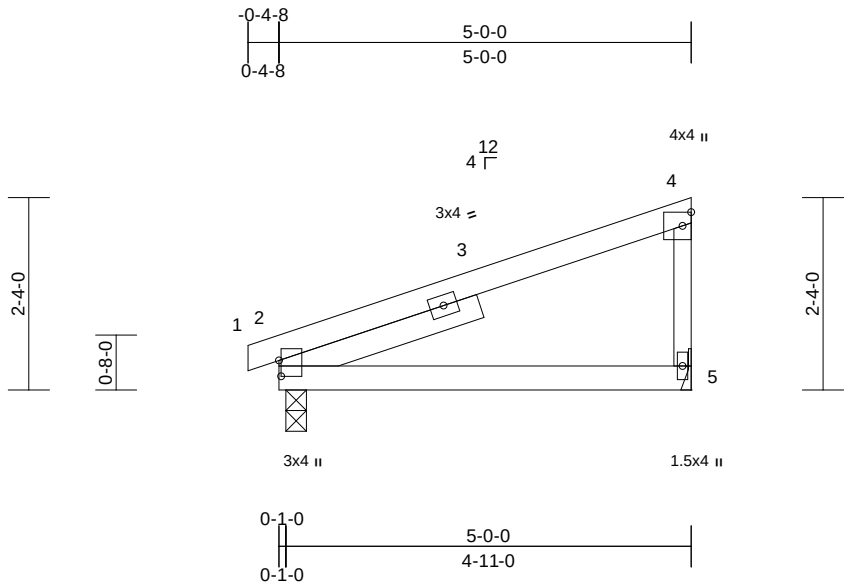


Scale = 1:27.9

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.54 | Vert(LL) | -0.03 | 2-5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.30 | Vert(CT) | -0.07 | 2-5 | >853 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 21 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-6-9

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

**REACTIONS** (lb/size) 2=248/0-3-0, 5=219/ Mechanical
Max Horiz 2=52 (LC 9)
Max Uplift 2=-3 (LC 12)

**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; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-4-8 to 2-7-8, Interior (1) 2-7-8 to 4-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 3-06-00 tall by 2-00-00 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 at joint(s) 2.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | B2 | Monopitch | 3 | 1 | I66371520 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 E Apr 26 2024 Print: 8.630 E Apr 26 2024 MiTek Industries, Inc. Fri Jun 21 07:51:08 Page: 1
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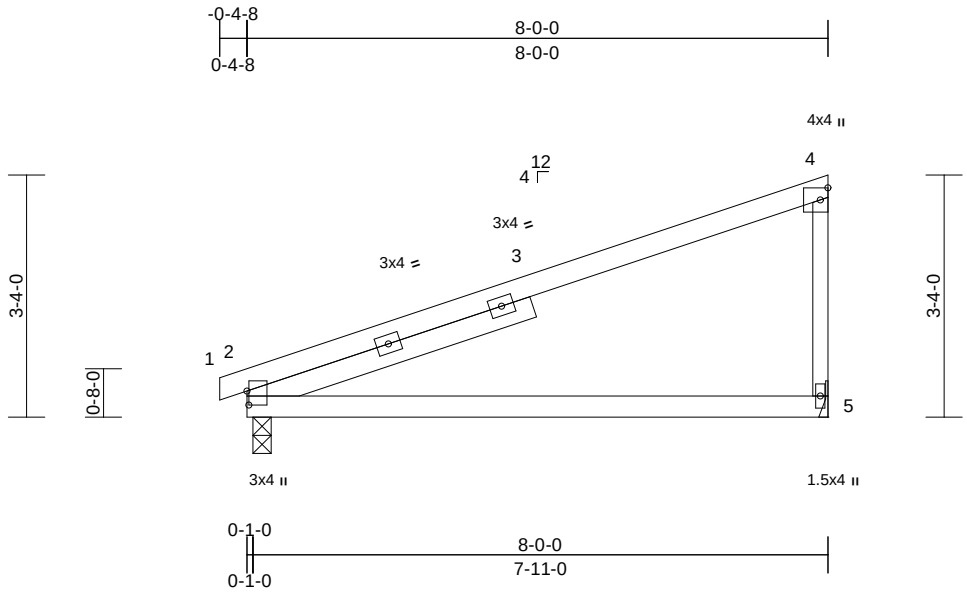


Scale = 1:31.7

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.70 | Vert(LL) | -0.23 | 2-5 | >406 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.84 | Vert(CT) | -0.47 | 2-5 | >203 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 34 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-1-9

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-0-12 oc bracing.

**REACTIONS** (lb/size) 2=382/0-3-0, 5=355/ Mechanical
Max Horiz 2=79 (LC 9)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-276/183

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-4-8 to 2-7-8, Interior (1) 2-7-8 to 7-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 3-06-00 tall by 2-00-00 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 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.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | C1 | Monopitch Supported Gable | 1 | 1 | I66371521 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:50 Page: 1
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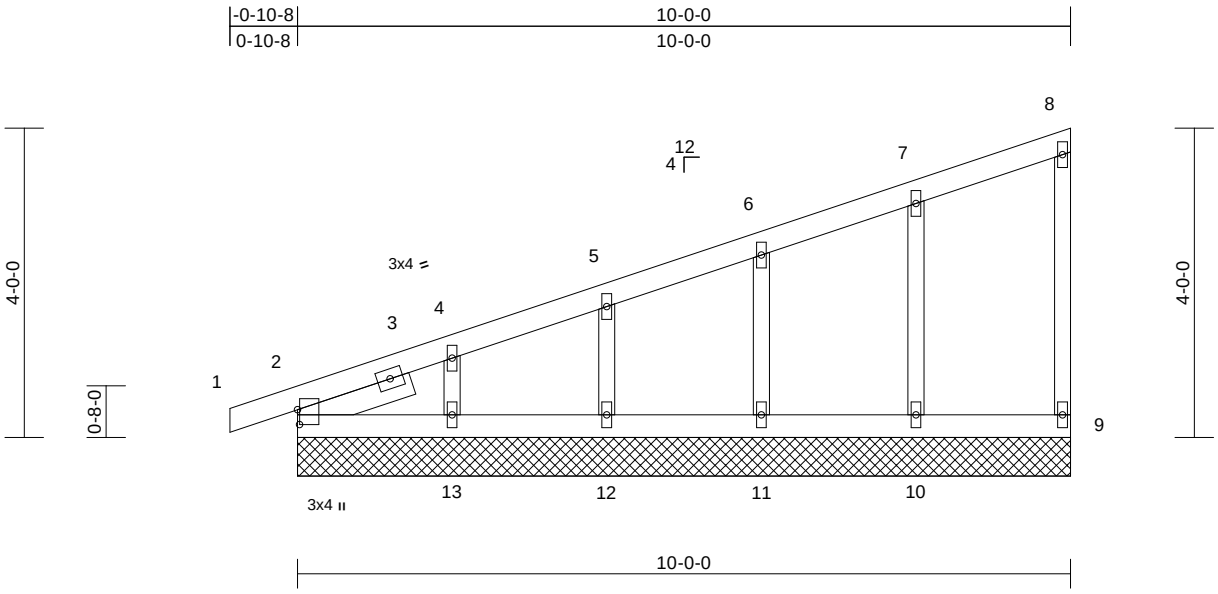



Scale = 1:29.8

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.14 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | 0.00 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 43 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-6-7

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

**REACTIONS** (size) 2=10-0-0, 9=10-0-0, 10=10-0-0, 11=10-0-0, 12=10-0-0, 13=10-0-0
Max Horiz 2=99 (LC 11)
Max Uplift 2=-2 (LC 12), 9=-3 (LC 9), 10=-2 (LC 12), 11=-2 (LC 12), 12=-3 (LC 12), 13=-6 (LC 12)
Max Grav 2=151 (LC 1), 9=69 (LC 1), 10=193 (LC 1), 11=177 (LC 1), 12=182 (LC 1), 13=179 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-238/116, 4-5=-174/97, 5-6=-136/86, 6-7=-97/76, 7-8=-53/58, 8-9=-54/42
BOT CHORD 2-13=-49/66, 12-13=-49/66, 11-12=-49/66, 10-11=-49/66, 9-10=-49/66
WEBS 7-10=-150/117, 6-11=-138/103, 5-12=-143/99, 4-13=-136/145

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 9-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 9, 2 lb uplift at joint 2, 2 lb uplift at joint 10, 2 lb uplift at joint 11, 3 lb uplift at joint 12 and 6 lb uplift at joint 13.
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.

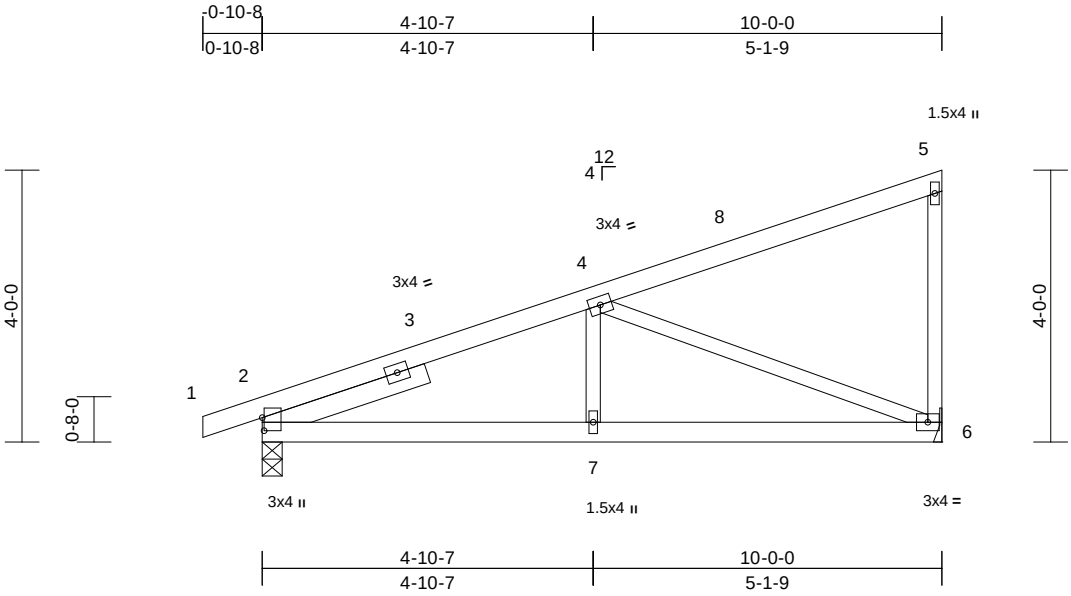
**LOAD CASE(S)** Standard

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

June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | C2 | Monopitch | 10 | 1 | I66371522 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:50 ID:UCuERxWI3xnDPX2a3yl14Lytxic-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1




Scale = 1:33.9

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.36 | Vert(LL) | -0.02 | 6-7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.28 | Vert(CT) | -0.05 | 6-7 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.49 | Horz(CT) | 0.01 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 44 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-6-6

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

**REACTIONS** (size) 2=0-3-8, 6= Mechanical
Max Horiz 2=99 (LC 9)
Max Uplift 2=-10 (LC 12)
Max Grav 2=509 (LC 1), 6=443 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-734/117, 4-5=-95/54, 5-6=-150/79
BOT CHORD 2-7=-196/636, 6-7=-196/636
WEBS 4-6=-669/170, 4-7=0/225

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 9-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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

June 21,2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/29/2024 6:57:02

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | D1 | Common Supported Gable | 1 | 1 | I66371523 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:50 Page: 1
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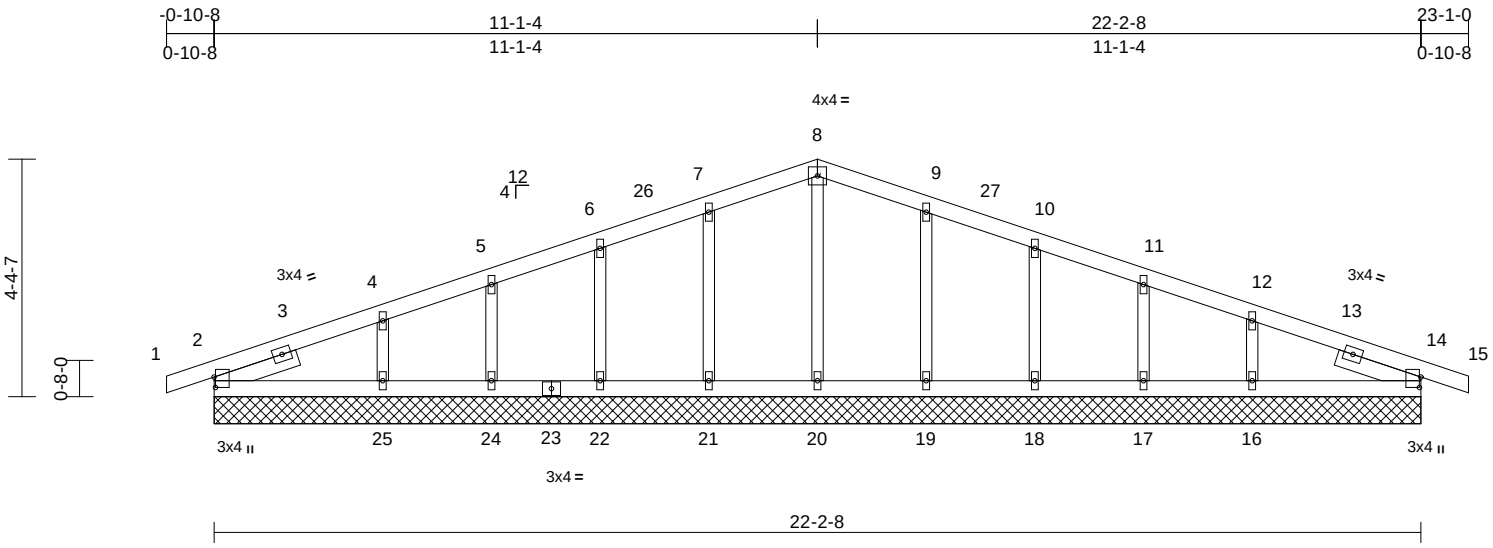



Scale = 1:42.4

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.10 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 14 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 93 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-7-4, Right 2x4 SP No.2 -- 1-7-4

**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) 2=22-2-8, 14=22-2-8, 16=22-2-8, 17=22-2-8, 18=22-2-8, 19=22-2-8, 20=22-2-8, 21=22-2-8, 22=22-2-8, 24=22-2-8, 25=22-2-8
Max Horiz 2=-33 (LC 10)
Max Uplift 2=-16 (LC 12), 14=-16 (LC 12), 16=-2 (LC 12), 17=-3 (LC 12), 18=-2 (LC 12), 19=-2 (LC 12), 21=-2 (LC 12), 22=-2 (LC 12), 24=-3 (LC 12), 25=-2 (LC 12)
Max Grav 2=210 (LC 1), 14=210 (LC 1), 16=259 (LC 24), 17=155 (LC 1), 18=185 (LC 1), 19=189 (LC 24), 20=139 (LC 1), 21=189 (LC 23), 22=185 (LC 1), 24=155 (LC 1), 25=259 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-101/18, 4-5=-73/45, 5-6=-68/66, 6-7=-69/90, 7-8=-71/113, 8-9=-71/110, 9-10=-69/84, 10-11=-68/61, 11-12=-73/39, 12-14=-101/10, 14-15=-5/0
BOT CHORD 2-25=0/46, 24-25=0/46, 22-24=0/46, 21-22=0/46, 20-21=0/46, 19-20=0/46, 18-19=0/46, 17-18=0/46, 16-17=0/46, 14-16=0/46
WEBS 8-20=-99/0, 7-21=-149/77, 6-22=-142/54, 5-24=-125/44, 4-25=-194/73, 9-19=-149/77, 10-18=-142/54, 11-17=-125/44, 12-16=-194/72

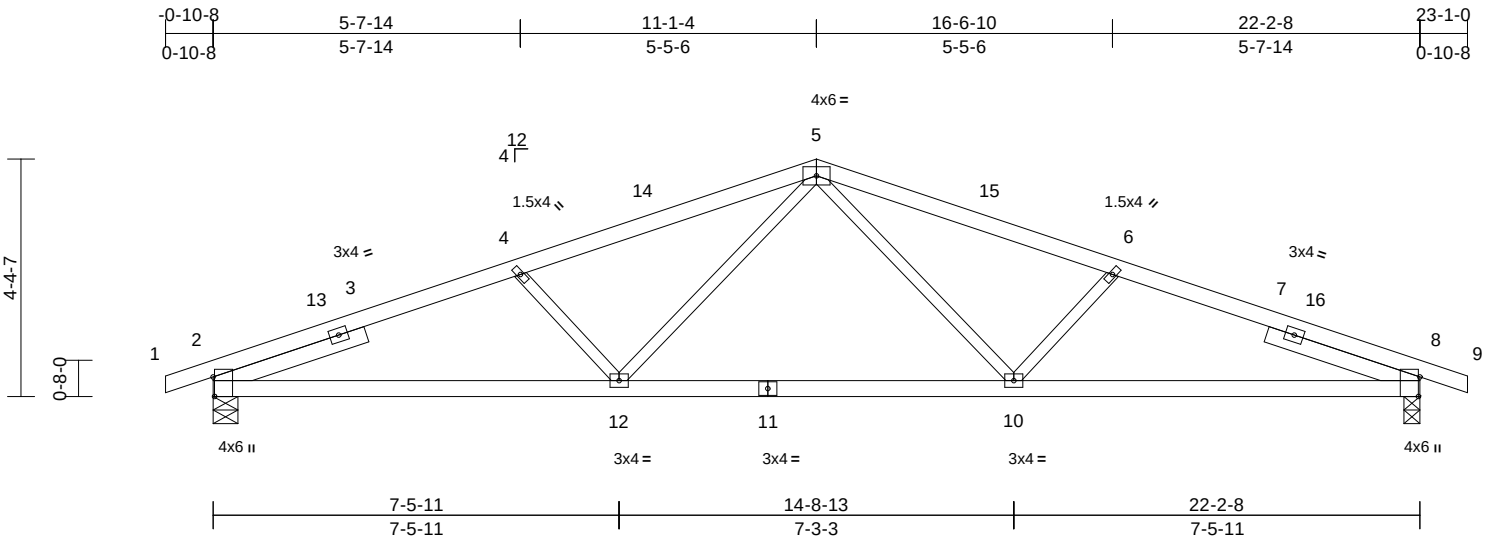
**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 11-1-4, Corner (3R) 11-1-4 to 14-1-4, Exterior(2N) 14-1-4 to 23-1-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 2, 16 lb uplift at joint 14, 2 lb uplift at joint 21, 2 lb uplift at joint 22, 3 lb uplift at joint 24, 2 lb uplift at joint 25, 2 lb uplift at joint 19, 2 lb uplift at joint 18, 3 lb uplift at joint 17 and 2 lb uplift at joint 16.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | D2 | Common | 5 | 1 | I66371524 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:50 Page: 1
ID:UCuERxWI3xnDPX2a3yl14Lytxic-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




Scale = 1:42.4

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.61 | Vert(LL) | -0.11 | 10-12 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.64 | Vert(CT) | -0.22 | 10-12 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.18 | Horz(CT) | 0.06 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 93 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-11-5, Right 2x4 SP No.2 -- 2-11-5

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-2-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-5-8, 8=0-3-8
Max Horiz 2=-33 (LC 10)
Max Uplift 2=-3 (LC 12), 8=-3 (LC 12)
Max Grav 2=1061 (LC 1), 8=1061 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-2089/149, 4-5=-1854/127, 5-6=-1854/127, 6-8=-2089/149, 8-9=-5/0
BOT CHORD 2-12=-103/1890, 10-12=-37/1376, 8-10=-97/1890
WEBS 5-10=0/534, 6-10=-328/111, 5-12=0/534, 4-12=-328/111

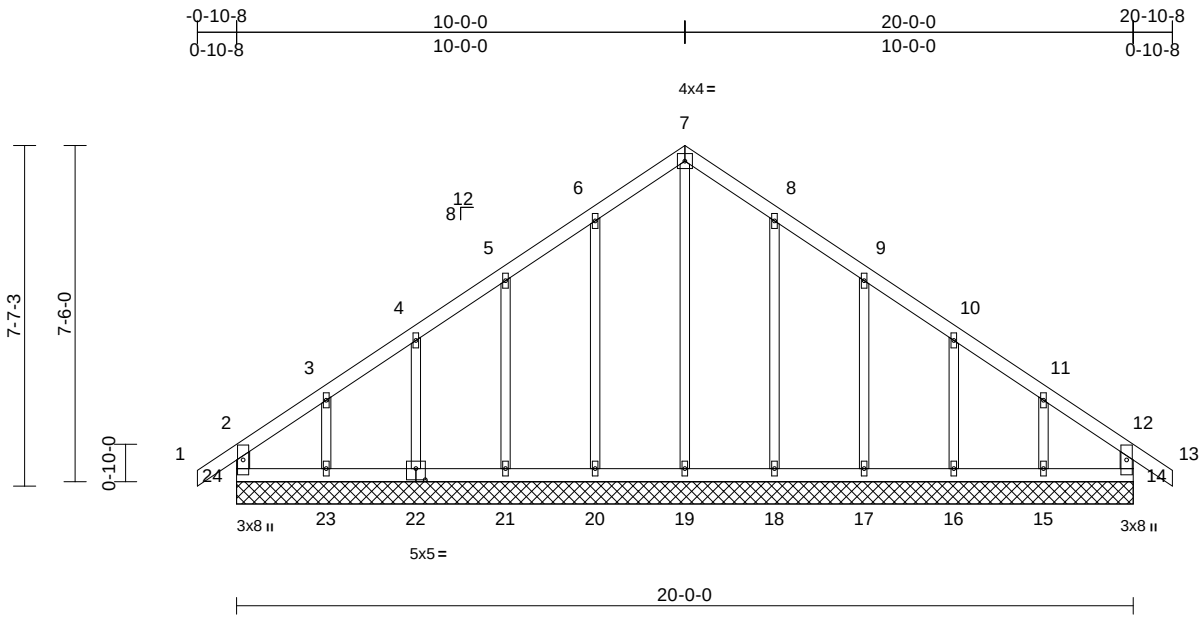
**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-1-4, Exterior(2R) 11-1-4 to 14-1-4, Interior (1) 14-1-4 to 23-1-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 2 and 3 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | E1 | Common Supported Gable | 1 | 1 | I66371525 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:50 ID:G0PUqfXpdb1C9Caj86dS0Nyg_nZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1




Scale = 1:51.4

Plate Offsets (X, Y): [22:0-2-8,0-3-0]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.19 | Horz(CT) | 0.00 | 14 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | Weight: 99 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP 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) 14=20-0-0, 15=20-0-0, 16=20-0-0, 17=20-0-0, 18=20-0-0, 19=20-0-0, 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0
Max Horiz 24=-129 (LC 10)
Max Uplift 14=-5 (LC 9), 15=-30 (LC 12), 16=-14 (LC 12), 17=-21 (LC 12), 18=-11 (LC 12), 20=-11 (LC 12), 21=-21 (LC 12), 22=-14 (LC 12), 23=-30 (LC 12), 24=-14 (LC 8)
Max Grav 14=167 (LC 1), 15=176 (LC 18), 16=184 (LC 1), 17=178 (LC 24), 18=190 (LC 24), 19=160 (LC 1), 20=190 (LC 23), 21=178 (LC 23), 22=184 (LC 1), 23=183 (LC 17), 24=174 (LC 18)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-24=-148/43, 1-2=0/40, 2-3=-97/80, 3-4=-79/66, 4-5=-73/83, 5-6=-79/134, 6-7=-104/178, 7-8=-104/178, 8-9=-79/134, 9-10=-55/83, 10-11=-61/49, 11-12=-77/56, 12-13=0/40, 12-14=-148/41
BOT CHORD 23-24=-52/73, 21-23=-52/73, 20-21=-52/73, 19-20=-52/73, 18-19=-52/73, 17-18=-52/73, 16-17=-52/73, 15-16=-52/73, 14-15=-52/73
WEBS 7-19=-149/46, 6-20=-150/56, 5-21=-138/68, 4-22=-144/61, 3-23=-133/75, 8-18=-150/56, 9-17=-138/68, 10-16=-144/61, 11-15=-129/75

**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; B=45ft; L=24ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner (3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 20-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 24, 5 lb uplift at joint 14, 11 lb uplift at joint 20, 21 lb uplift at joint 21, 14 lb uplift at joint 22, 30 lb uplift at joint 23, 11 lb uplift at joint 18, 21 lb uplift at joint 17, 14 lb uplift at joint 16 and 30 lb uplift at joint 15.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

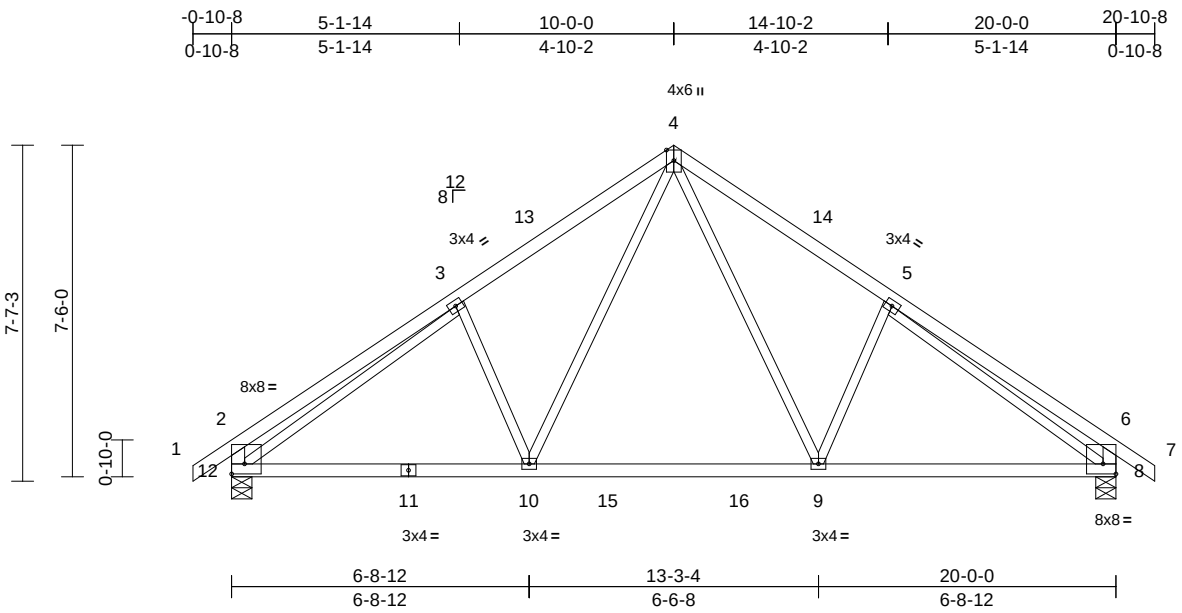

June 21,2024



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/29/2024 6:57:02

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | E2 | Common | 3 | 1 | I66371526 |
| | | | | | Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:50 ID:g22mK39Nw47cxSilq5aBGryg_o2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1




Scale = 1:52.1

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.34 | Vert(LL) | -0.08 | 9-10 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.52 | Vert(CT) | -0.12 | 9-10 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.74 | Horz(CT) | 0.03 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 99 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 12-2,8-6:2x4 SP 2400F 2.0E

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

**REACTIONS** (size) 8=0-5-8, 12=0-5-8
Max Horiz 12=-129 (LC 10)
Max Uplift 8=-8 (LC 12), 12=-8 (LC 12)
Max Grav 8=1011 (LC 18), 12=1011 (LC 17)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-492/72, 3-4=-1109/83, 4-5=-1109/83, 5-6=-492/72, 6-7=0/40, 2-12=-451/74, 6-8=-451/74
BOT CHORD 10-12=0/994, 9-10=0/694, 8-9=0/924
WEBS 3-12=-783/0, 5-8=-783/0, 3-10=-263/104, 4-10=-16/515, 4-9=-16/515, 5-9=-263/105

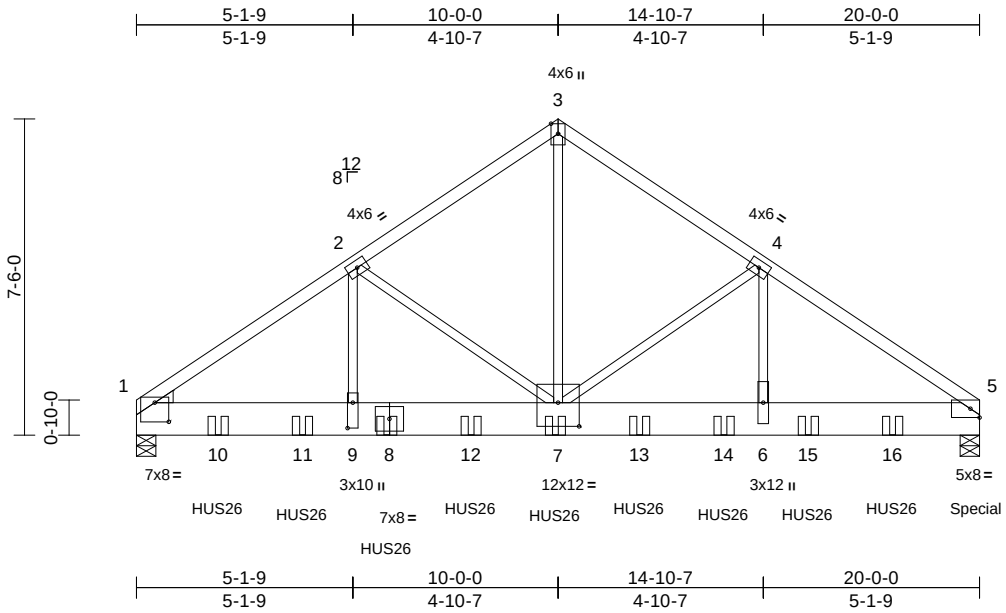
**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior (1) 13-0-0 to 20-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 12 and 8 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | E3 | Common Girder | 1 | 3 | I66371527 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:51 ID:4ukXNjh4mFYE5h6Guu?JeHytxiO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1




Scale = 1:54.7

Plate Offsets (X, Y): [1:0-4-0,0-5-7], [7:0-6-0,0-6-12], [9:0-7-4,0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.71 | Vert(LL) | -0.08 | 6-7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.75 | Vert(CT) | -0.15 | 6-7 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | NO | WB | 0.80 | Horz(CT) | 0.03 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 355 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x10 HF No.2
WEBS 2x3 SPF No.2
WEDGE Left: 2x4 SP 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=0-5-8, 5=0-5-8
Max Horiz 1=-108 (LC 6)
Max Grav 1=6971 (LC 1), 5=8269 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-9403/0, 2-3=-6685/0, 3-4=-6685/0, 4-5=-9413/0
BOT CHORD 1-9=0/7451, 7-9=0/7451, 6-7=0/7459, 5-6=0/7459
WEBS 2-9=0/3109, 2-7=-2494/0, 3-7=0/6967, 4-7=-2505/0, 4-6=0/3122

**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: 2x10 - 2 rows staggered at 0-4-0 oc.
Web connected as follows: 2x3 - 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; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional); 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be HF No.2 crushing capacity of 405 psi.
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) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-11-4 from the left end to 17-11-4 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1359 lb down at 19-9-4 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 (lb/ft)
Vert: 1-3=-70, 3-5=-70, 1-5=-20
Concentrated Loads (lb)
Vert: 5=-1359 (F), 8=-1347 (F), 7=-1347 (F), 10=-1347 (F), 11=-1347 (F), 12=-1347 (F), 13=-1347 (F), 14=-1347 (F), 15=-1347 (F), 16=-1347 (F)

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

June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | G1 | Common Supported Gable | 1 | 1 | I66371528 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:51 Page: 1
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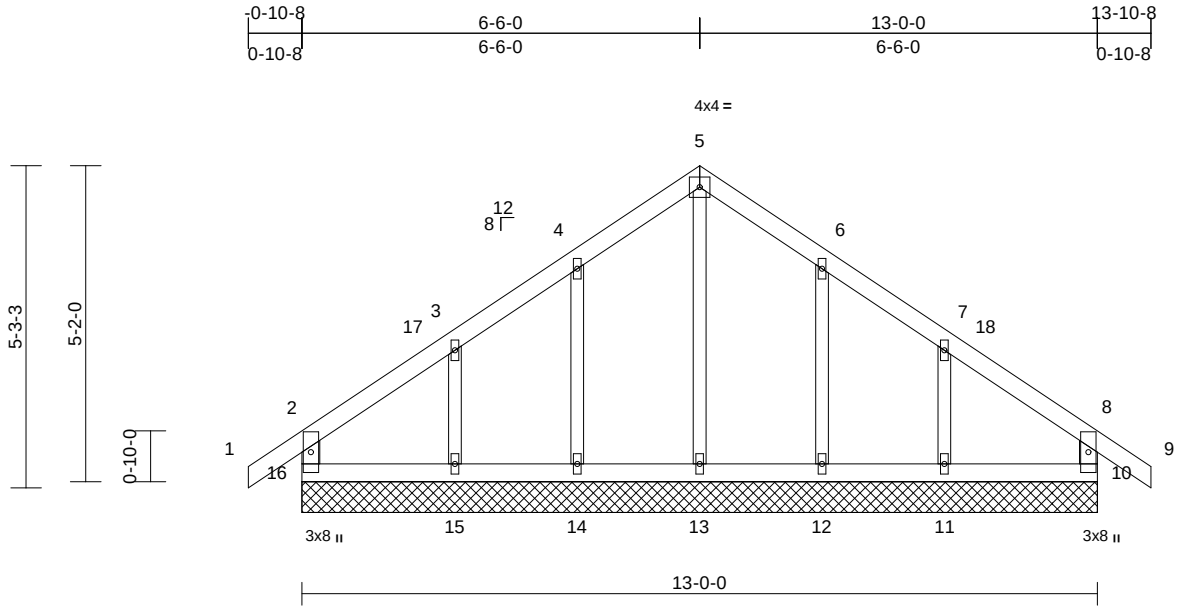


Scale = 1:37.7

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | Weight: 60 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP 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) 10=13-0-0, 11=13-0-0, 12=13-0-0, 13=13-0-0, 14=13-0-0, 15=13-0-0, 16=13-0-0
Max Horiz 16=-92 (LC 10)
Max Uplift 10=-27 (LC 12), 11=-24 (LC 12), 12=-14 (LC 12), 14=-14 (LC 12), 15=-24 (LC 12), 16=-27 (LC 12)
Max Grav 10=190 (LC 1), 11=200 (LC 18), 12=185 (LC 24), 13=152 (LC 1), 14=185 (LC 23), 15=203 (LC 17), 16=190 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-168/98, 1-2=0/40, 2-3=-87/52, 3-4=-67/104, 4-5=-95/159, 5-6=-95/159, 6-7=-68/104, 7-8=-77/42, 8-9=0/40, 8-10=-168/98
BOT CHORD 15-16=-34/48, 14-15=-34/48, 13-14=-34/48, 12-13=-34/48, 11-12=-34/48, 10-11=-34/48
WEBS 5-13=-118/25, 4-14=-148/76, 3-15=-149/104, 6-12=-148/76, 7-11=-148/104

**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; B=45ft; L=24ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 6-6-0, Corner(3R) 6-6-0 to 9-6-0, Exterior(2N) 9-6-0 to 13-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 16, 27 lb uplift at joint 10, 14 lb uplift at joint 14, 24 lb uplift at joint 15, 14 lb uplift at joint 12 and 24 lb uplift at joint 11.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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

June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | G2 | Common | 1 | 1 | I66371529 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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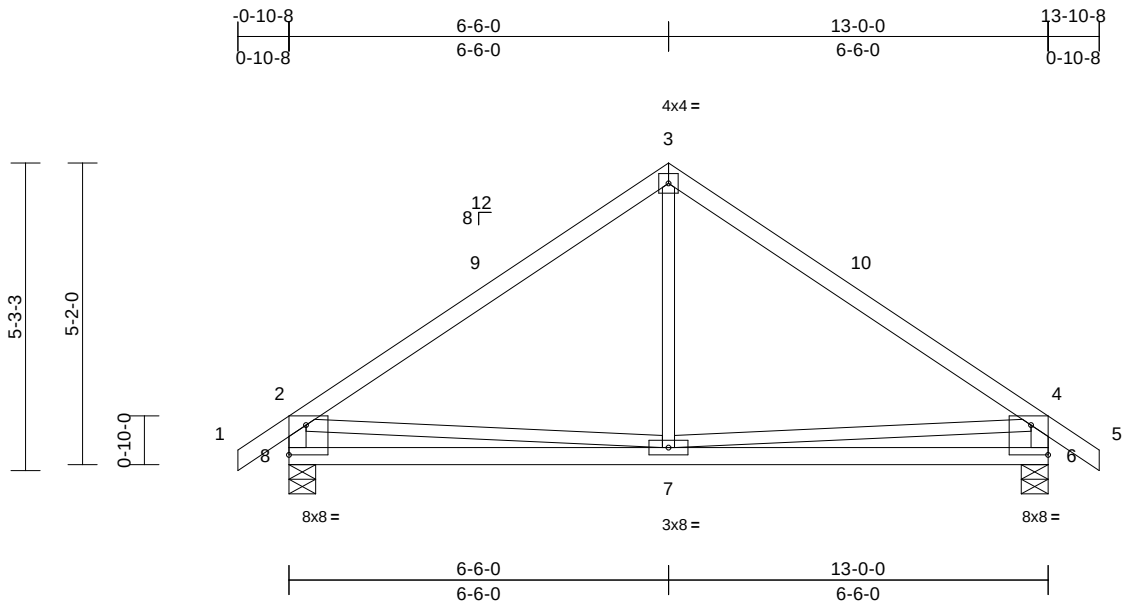


Scale = 1:39.5

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.58 | Vert(LL) | -0.03 | 6-7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.38 | Vert(CT) | -0.07 | 6-7 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.12 | Horz(CT) | 0.01 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 61 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 8-2,6-4:2x4 SP 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=0-5-8, 8=0-5-8
Max Horiz 8=-92 (LC 10)
Max Uplift 6=-13 (LC 12), 8=-13 (LC 12)
Max Grav 6=643 (LC 1), 8=643 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-628/62, 3-4=-628/62, 4-5=0/40, 2-8=-588/97, 4-6=-588/97
BOT CHORD 7-8=-119/444, 6-7=-99/415
WEBS 3-7=0/271, 2-7=-115/170, 4-7=-115/170

**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; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior (1) 9-6-0 to 13-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 8 and 13 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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

June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | G3 | Common | 4 | 1 | I66371530 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:51 Page: 1
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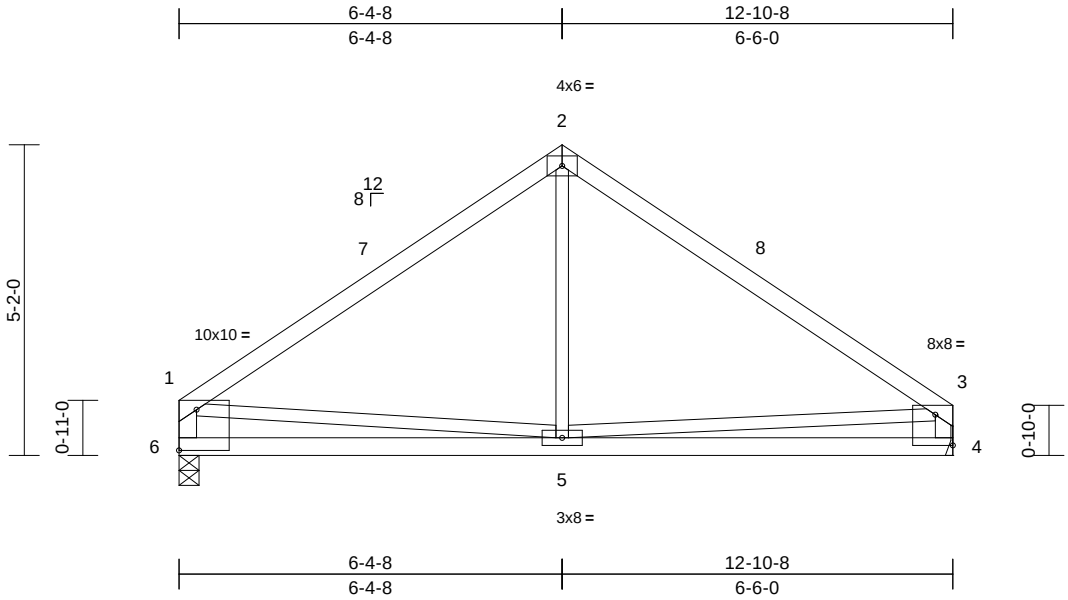


Scale = 1:38.3

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.67 | Vert(LL) | -0.03 | 4-5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.36 | Vert(CT) | -0.07 | 4-5 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.08 | Horz(CT) | 0.01 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 58 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 6-1,4-3:2x4 SP No.2

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

**REACTIONS** (size) 4= Mechanical, 6=0-4-0
Max Horiz 6=-83 (LC 10)
Max Grav 4=566 (LC 1), 6=566 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-619/62, 2-3=-622/62, 1-6=-511/65, 3-4=-510/66
BOT CHORD 5-6=-77/293, 4-5=-64/305
WEBS 2-5=0/257, 1-5=0/217, 3-5=-13/194

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-4 to 3-3-4, Interior (1) 3-3-4 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior (1) 9-6-0 to 12-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Bearings are assumed to be: Joint 6 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
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.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | H1 | Common Supported Gable | 1 | 1 | I66371531 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:51 Page: 1
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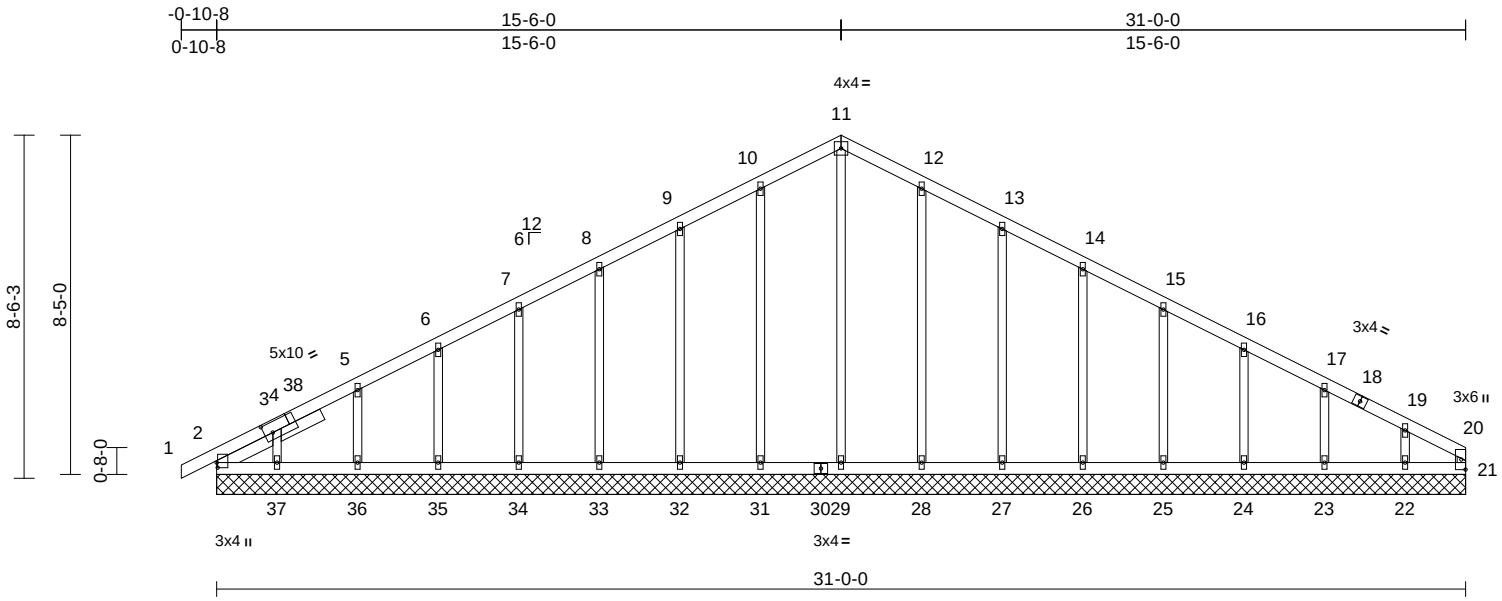


Scale = 1:57.2

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.19 | Horz(CT) | 0.00 | 21 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 154 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2 *Except* 4-4:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-7-0

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

**REACTIONS** (size) 2=31-0-0, 21=31-0-0, 22=31-0-0, 23=31-0-0, 24=31-0-0, 25=31-0-0, 26=31-0-0, 27=31-0-0, 28=31-0-0, 29=31-0-0, 31=31-0-0, 32=31-0-0, 33=31-0-0, 34=31-0-0, 35=31-0-0, 36=31-0-0, 37=31-0-0
Max Horiz 2=120 (LC 11)
Max Uplift 2=-3 (LC 10), 22=-30 (LC 12), 23=-5 (LC 12), 24=-9 (LC 12), 25=-8 (LC 12), 26=-8 (LC 12), 27=-11 (LC 12), 28=-3 (LC 12), 31=-3 (LC 12), 32=-11 (LC 12), 33=-8 (LC 12), 34=-9 (LC 12), 35=-8 (LC 12), 36=-9 (LC 12), 37=-15 (LC 12)
Max Grav 2=151 (LC 18), 21=65 (LC 17), 22=165 (LC 24), 23=184 (LC 1), 24=179 (LC 24), 25=180 (LC 1), 26=180 (LC 1), 27=179 (LC 24), 28=189 (LC 24), 29=152 (LC 1), 31=189 (LC 23), 32=179 (LC 23), 33=180 (LC 1), 34=180 (LC 23), 35=179 (LC 1), 36=183 (LC 23), 37=156 (LC 17)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-120/100, 3-5=-103/83, 5-6=-97/76, 6-7=-91/69, 7-8=-84/83, 8-9=-78/119, 9-10=-80/156, 10-11=-97/188, 11-12=-97/188, 12-13=-80/156, 13-14=-61/119, 14-15=-50/83, 15-16=-50/48, 16-17=-51/19, 17-19=-56/25, 19-20=-92/42, 20-21=-49/7
BOT CHORD 2-37=-28/81, 36-37=-28/81, 35-36=-28/81, 34-35=-28/81, 33-34=-28/81, 32-33=-28/81, 31-32=-28/81, 29-31=-28/81, 28-29=-28/81, 27-28=-28/81, 26-27=-28/81, 25-26=-28/81, 24-25=-28/81, 23-24=-28/81, 22-23=-28/81, 21-22=-28/81
WEBS 11-29=-117/25, 10-31=-149/48, 9-32=-139/59, 8-33=-140/55, 7-34=-140/55, 6-35=-140/55, 5-36=-142/58, 3-37=-120/89, 12-28=-149/48, 13-27=-139/59, 14-26=-140/55, 15-25=-140/56, 16-24=-139/55, 17-23=-143/71, 19-22=-128/102

**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; B=45ft; L=31ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-2-11, Exterior(2N) 2-2-11 to 15-6-0, Corner (3R) 15-6-0 to 18-7-3, Exterior(2N) 18-7-3 to 30-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 2, 3 lb uplift at joint 31, 11 lb uplift at joint 32, 8 lb uplift at joint 33, 9 lb uplift at joint 34, 8 lb uplift at joint 35, 9 lb uplift at joint 36, 15 lb uplift at joint 37, 3 lb uplift at joint 28, 11 lb uplift at joint 27, 8 lb uplift at joint 26, 8 lb uplift at joint 25, 9 lb uplift at joint 24, 5 lb uplift at joint 23 and 30 lb uplift at joint 22.
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.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | H2 | Common | 6 | 1 | I66371532 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:51 Page: 1
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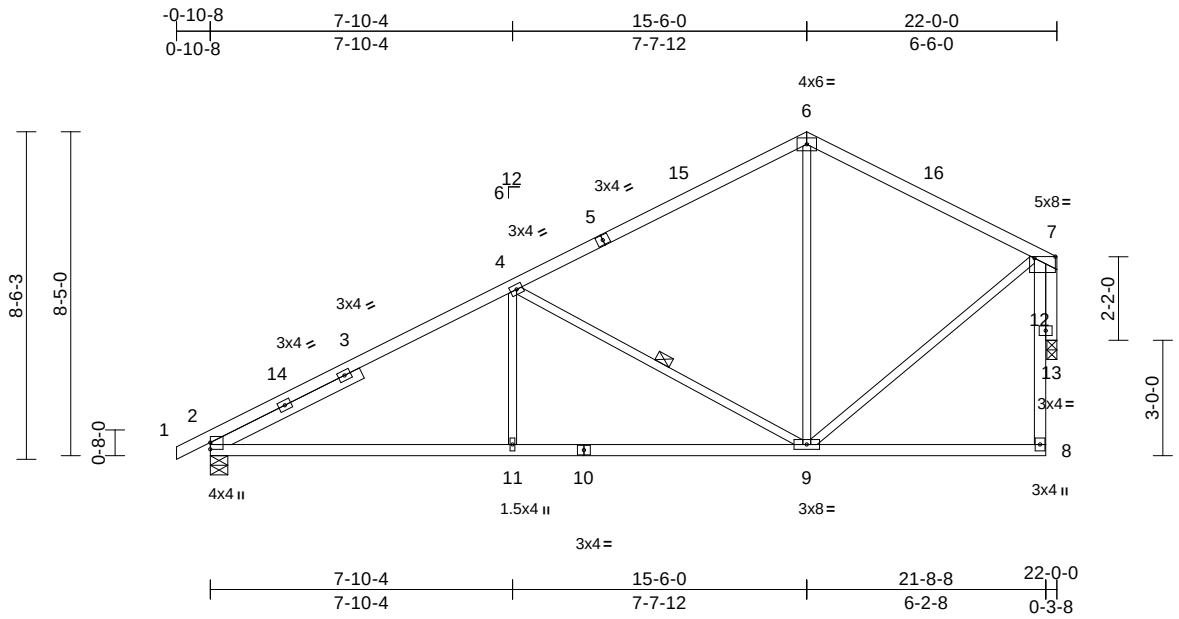


Scale = 1:59.9

Plate Offsets (X, Y): [7:0-6-8,0-0-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.85 | Vert(LL) | -0.09 | 2-11 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.64 | Vert(CT) | -0.20 | 2-11 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.57 | Horz(CT) | 0.10 | 13 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 110 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 8-7:2x4 SP No.2
OTHERS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 4-4-4

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 4-2-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-9

**REACTIONS** (size) 2=0-5-8, 13=0-3-2
Max Horiz 2=135 (LC 11)
Max Grav 2=1046 (LC 1), 13=955 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-1527/61, 4-6=-776/95, 6-7=-733/90, 8-12=0/103, 7-12=0/103
BOT CHORD 2-11=-153/1262, 9-11=-153/1262, 8-9=-47/92
WEBS 6-9=0/252, 4-9=-800/98, 4-11=0/333, 7-9=-27/643, 7-13=-968/57

**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; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior (1) 18-6-0 to 21-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | H3 | Common Girder | 1 | 2 | I66371533 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:51 Page: 1
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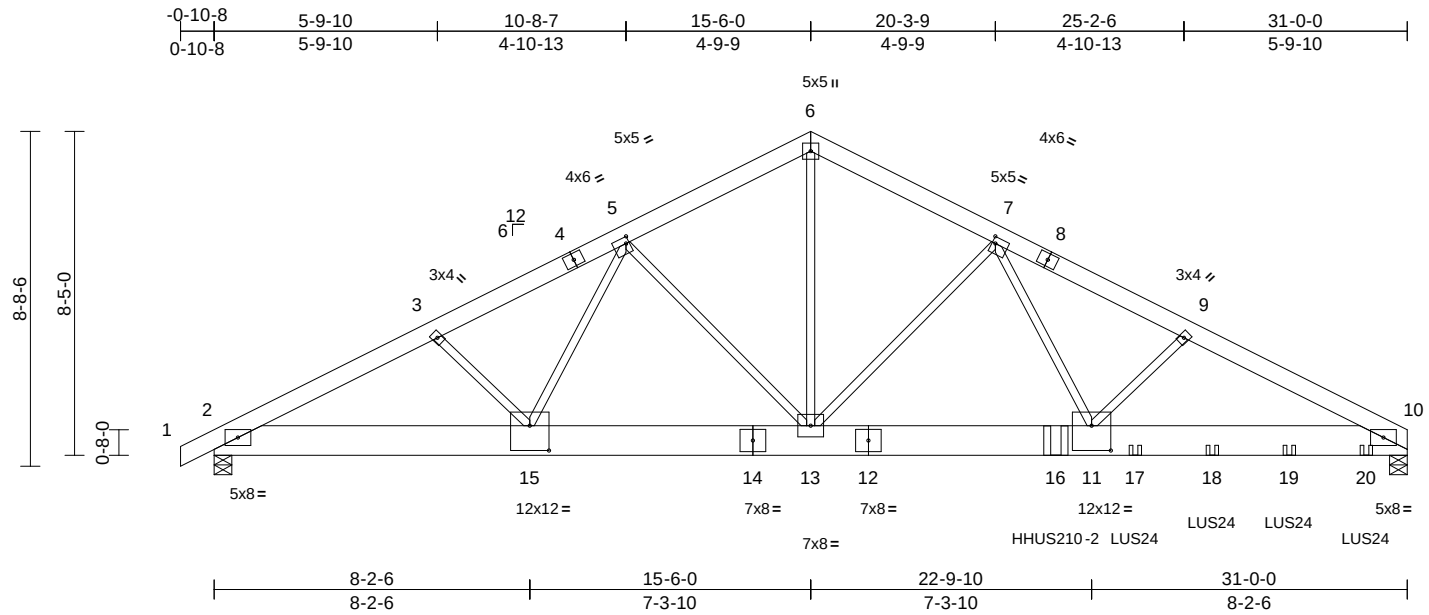



Scale = 1:59.9

Plate Offsets (X, Y): [5:0-1-0,0-2-0], [7:0-1-0,0-2-0], [11:0-6-0,0-7-12], [15:0-6-0,0-7-12]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.38 | Vert(LL) | -0.15 | 11-13 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.87 | Vert(CT) | -0.27 | 11-13 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | NO | WB | 0.95 | Horz(CT) | 0.06 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 382 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x10 HF No.2
WEBS 2x3 SPF No.2

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

**REACTIONS** (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=113 (LC 7)
Max Grav 2=2737 (LC 1), 10=5740 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-5134/0, 3-5=-4897/0, 5-6=-4511/0, 6-7=-4511/0, 7-9=-9514/0, 9-10=-9721/0
BOT CHORD 2-15=0/4465, 13-15=0/4238, 11-13=0/6340, 10-11=0/8545
WEBS 6-13=0/3587, 3-15=-245/105, 5-15=-63/246, 5-13=-412/136, 7-13=-3568/0, 7-11=0/5038, 9-11=-136/172

**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.
Bottom chords connected as follows: 2x10 - 4 rows staggered at 0-5-0 oc.
Web connected as follows: 2x3 - 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; B=45ft; L=31ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional); 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be HF No.2 crushing capacity of 405 psi.
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) Use Simpson Strong-Tie HHUS210-2 (30-10d Girder, 10-10d Truss, Single Ply Girder) or equivalent at 21-10-7 from the left end to connect truss(es) to front face of bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 23-11-4 from the left end to 29-11-4 to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.

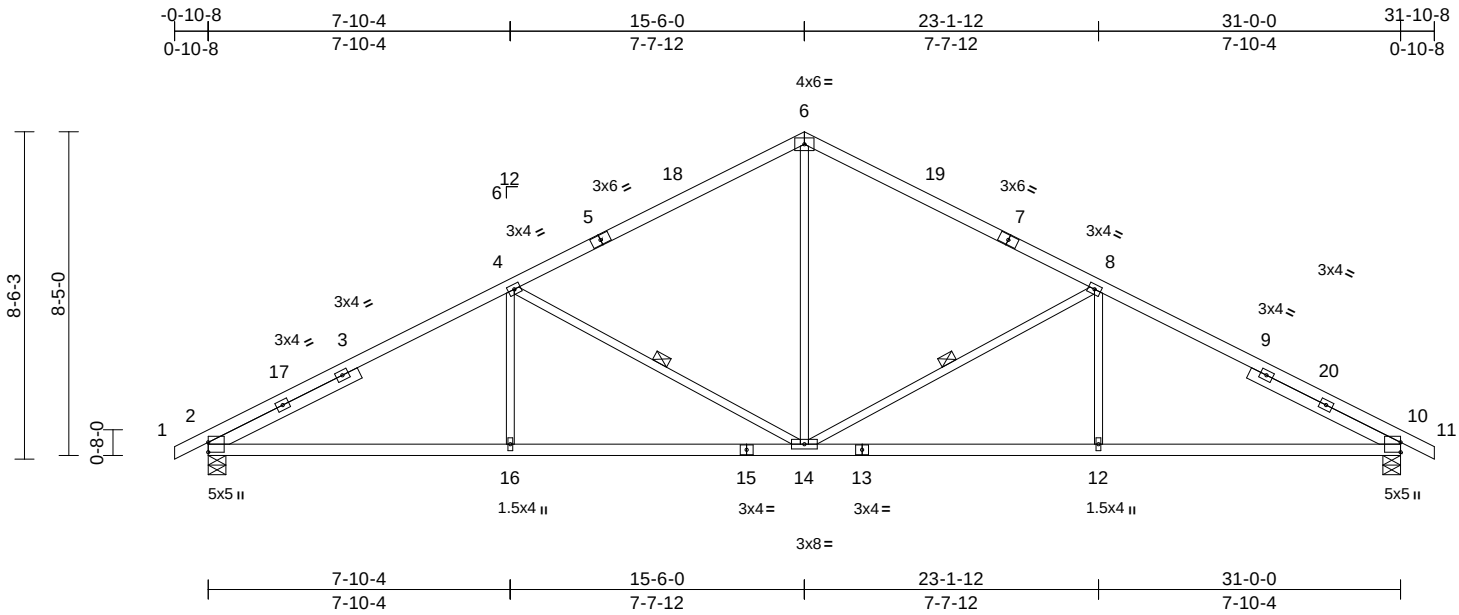
**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-6=-70, 6-10=-70, 2-10=-20
Concentrated Loads (lb)
Vert: 16=-3464 (F), 17=-546 (F), 18=-546 (F), 19=-546 (F), 20=-548 (F)

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

June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | H4 | Common | 3 | 1 | I66371534 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:51 Page: 1
ID:nYpuvKbhP5gElc4wzwNgspytxiV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f




Scale = 1:59.9

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.83 | Vert(LL) | -0.10 | 14-16 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.72 | Vert(CT) | -0.23 | 10-12 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.54 | Horz(CT) | 0.10 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 141 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP 1650F 1.5E *Except* 1-5,7-11:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-4-4, Right 2x4 SP No.2 -- 4-4-4

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-14, 4-14

**REACTIONS** (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=-114 (LC 10)
Max Grav 2=1456 (LC 1), 10=1456 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-2365/28, 4-6=-1654/86, 6-8=-1654/86, 8-10=-2365/28, 10-11=0/6
BOT CHORD 2-16=0/1996, 14-16=0/1996, 12-14=0/1996, 10-12=0/1996
WEBS 6-14=0/857, 8-14=-760/57, 8-12=0/326, 4-14=-760/57, 4-16=0/326

**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; B=45ft; L=31ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-2-11, Interior (1) 2-2-11 to 15-6-0, Exterior (2R) 15-6-0 to 18-7-3, Interior (1) 18-7-3 to 31-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 3x4 MT20 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
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.

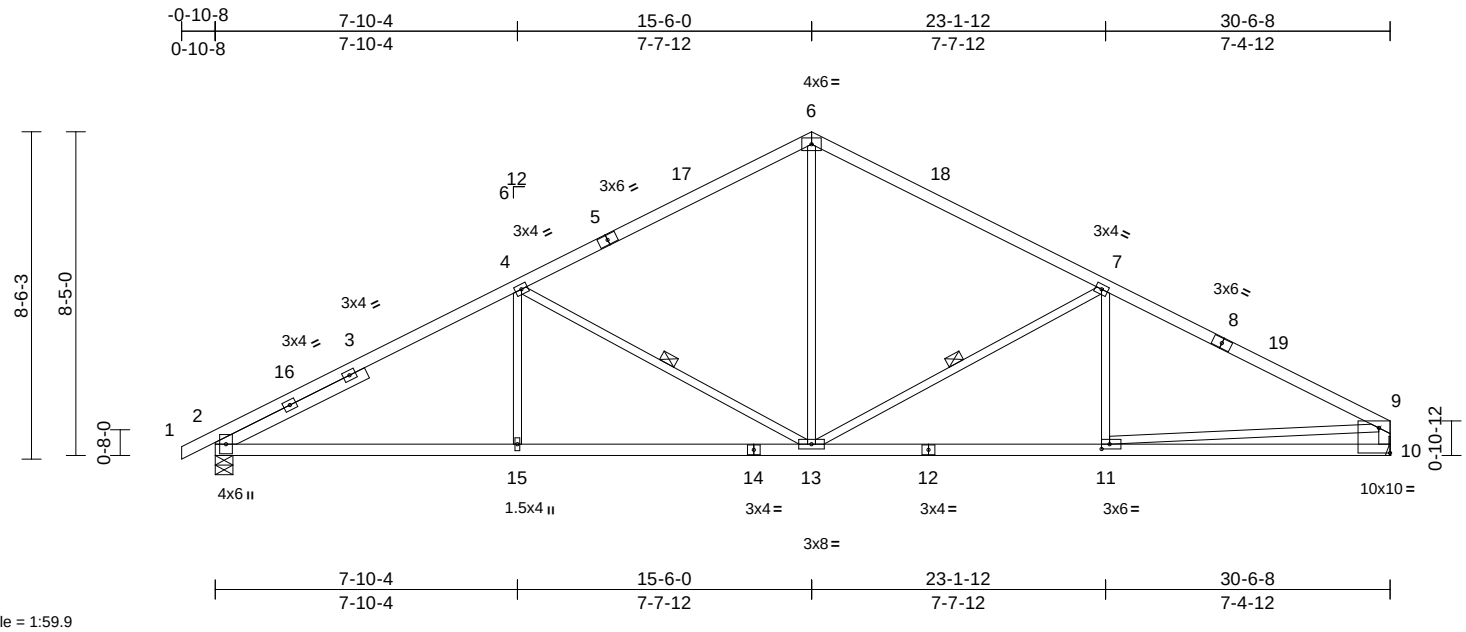
**LOAD CASE(S)** Standard

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

June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | H5 | Common | 10 | 1 | I66371535 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:52 Page: 1
ID:nYpuvKbhP5gElc4wzwNgspytxiV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f




Scale = 1:59.9

Plate Offsets (X, Y): [2:0-3-9,0-1-5], [10:Edge,0-7-13], [11:0-2-8,0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.89 | Vert(LL) | -0.11 | 11-13 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.71 | Vert(CT) | -0.24 | 11-13 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.55 | Horz(CT) | 0.08 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 138 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2 *Except* 5-6:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 10-9:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 4-4-4

**BRACING**
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-13, 4-13

**REACTIONS** (size) 2=0-5-8, 10= Mechanical
Max Horiz 2=123 (LC 11)
Max Grav 2=1430 (LC 1), 10=1367 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-2311/28, 4-6=-1598/86, 6-7=-1602/87, 7-9=-2187/34, 9-10=-1293/45
BOT CHORD 2-15=0/1949, 13-15=0/1949, 11-13=0/1866, 10-11=-25/383
WEBS 6-13=0/820, 7-13=-680/58, 7-11=0/220, 4-13=-764/57, 4-15=0/325, 9-11=0/1489

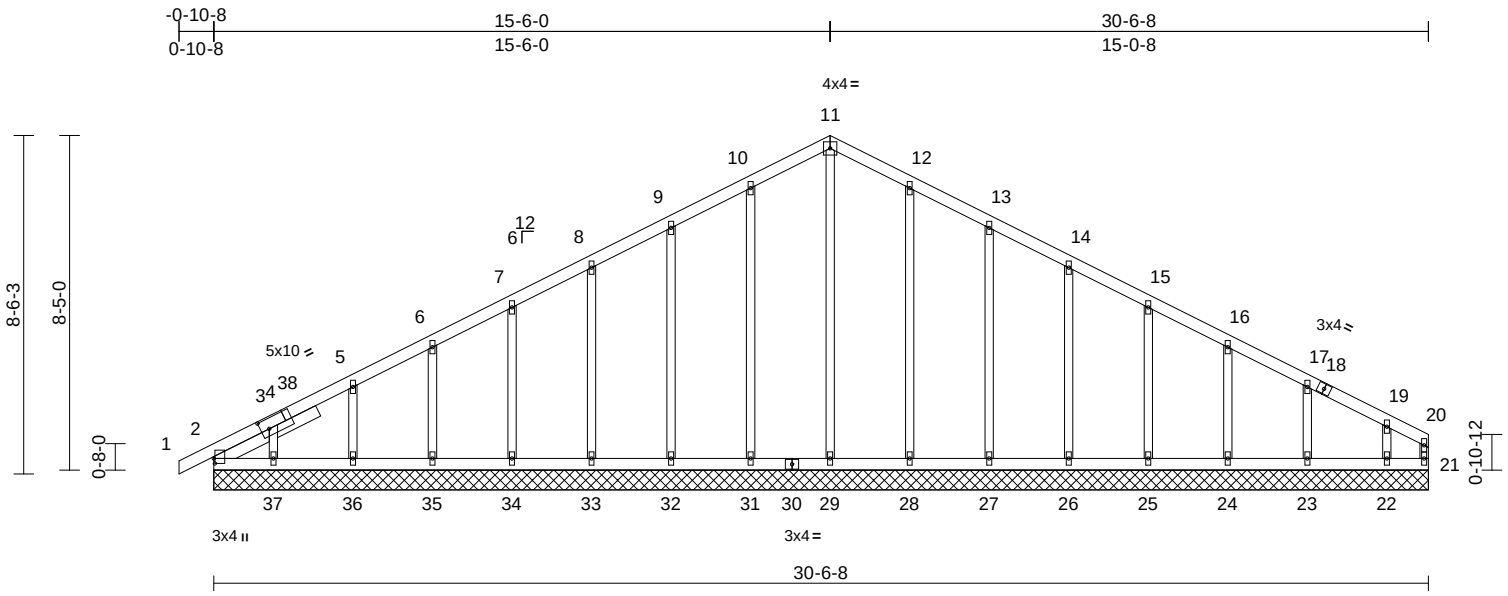
**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=31ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-2-2, Interior (1) 2-2-2 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-10, Interior (1) 18-6-10 to 30-4-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
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.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | H8 | Common Supported Gable | 1 | 1 | I66371536 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:52 Page: 1
ID:vnZN4yYALs9oG?m9k4JkhzytxiZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




Scale = 1:57.9

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.20 | Horz(CT) | 0.00 | 21 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 153 lb | FT = 20% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.2 |
| WEBS | 2x3 SPF No.2 |
| OTHERS | 2x3 SPF No.2 *Except* 4-4:2x4 SP No.2 |
| SLIDER | Left 2x4 SP No.2 -- 1-7-0 |

**BRACING**

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

**REACTIONS** (size) 2=30-6-8, 21=30-6-8, 22=30-6-8, 23=30-6-8, 24=30-6-8, 25=30-6-8, 26=30-6-8, 27=30-6-8, 28=30-6-8, 29=30-6-8, 31=30-6-8, 32=30-6-8, 33=30-6-8, 34=30-6-8, 35=30-6-8, 36=30-6-8, 37=30-6-8
Max Horiz 2=122 (LC 11)
Max Uplift 2=-8 (LC 10), 21=-12 (LC 11), 22=-42 (LC 12), 23=-6 (LC 12), 24=-9 (LC 12), 25=-8 (LC 12), 26=-8 (LC 12), 27=-11 (LC 12), 28=-3 (LC 12), 31=-3 (LC 12), 32=-11 (LC 12), 33=-8 (LC 12), 34=-9 (LC 12), 35=-8 (LC 12), 36=-9 (LC 12), 37=-13 (LC 12)
Max Grav 2=151 (LC 18), 21=50 (LC 17), 22=146 (LC 18), 23=187 (LC 1), 24=178 (LC 24), 25=180 (LC 1), 26=180 (LC 1), 27=179 (LC 24), 28=189 (LC 24), 29=158 (LC 17), 31=189 (LC 23), 32=179 (LC 23), 33=180 (LC 1), 34=180 (LC 23), 35=179 (LC 1), 36=183 (LC 23), 37=158 (LC 17)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-122/107, 3-5=-104/90, 5-6=-98/82, 6-7=-92/75, 7-8=-85/94, 8-9=-79/129, 9-10=-81/166, 10-11=-99/198, 11-12=-99/198, 12-13=-81/166, 13-14=-63/129, 14-15=-49/94, 15-16=-45/59, 16-17=-46/23, 17-19=-48/24, 19-20=-85/40, 20-21=-50/18

BOT CHORD 2-37=-26/70, 36-37=-26/70, 35-36=-26/70, 34-35=-26/70, 33-34=-26/70, 32-33=-26/70, 31-32=-26/70, 29-31=-26/70, 28-29=-26/70, 27-28=-26/70, 26-27=-26/70, 25-26=-26/70, 24-25=-26/70, 23-24=-26/70, 22-23=-26/70, 21-22=-26/70

WEBS 11-29=-126/26, 10-31=-149/48, 9-32=-139/59, 8-33=-140/55, 7-34=-140/55, 6-35=-140/55, 5-36=-142/57, 3-37=-121/86, 12-28=-149/48, 13-27=-139/59, 14-26=-140/55, 15-25=-140/56, 16-24=-139/55, 17-23=-145/73, 19-22=-114/104

**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; B=45ft; L=31ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-2-2, Exterior(2N) 2-2-2 to 15-6-0, Corner (3R) 15-6-0 to 18-6-10, Exterior(2N) 18-6-10 to 30-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 21, 8 lb uplift at joint 2, 3 lb uplift at joint 31, 11 lb uplift at joint 32, 8 lb uplift at joint 33, 9 lb uplift at joint 34, 8 lb uplift at joint 35, 9 lb uplift at joint 36, 13 lb uplift at joint 37, 3 lb uplift at joint 28, 11 lb uplift at joint 27, 8 lb uplift at joint 26, 8 lb uplift at joint 25, 9 lb uplift at joint 24, 6 lb uplift at joint 23 and 42 lb uplift at joint 22.
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.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | R1 | Flat Girder | 1 | 2 | I66371537 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:52
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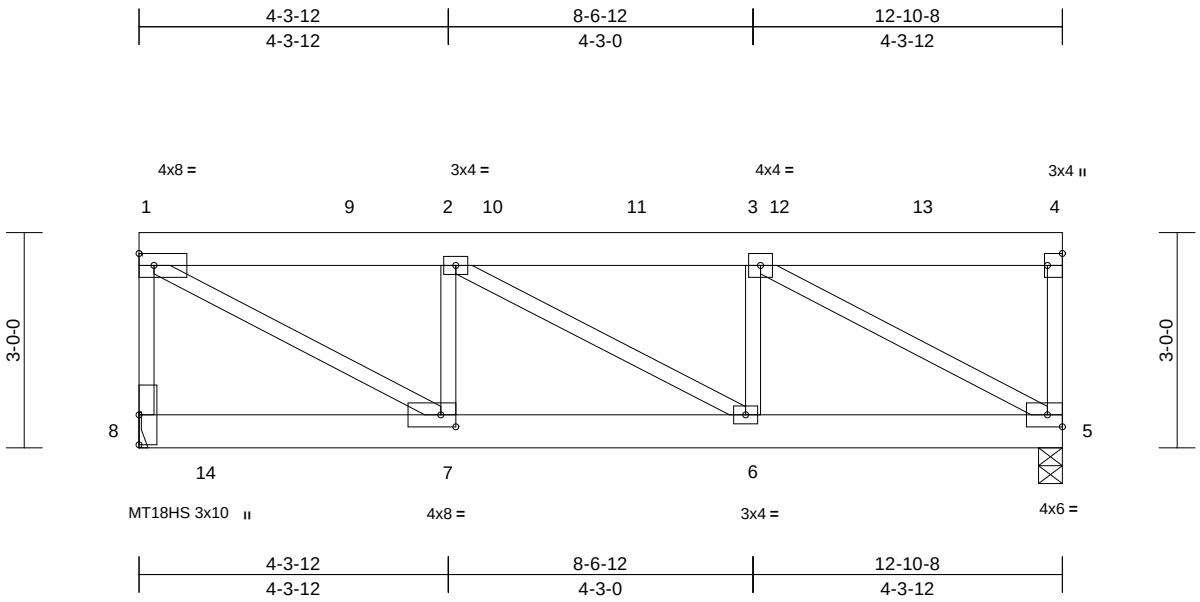


Scale = 1:32.1

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.44 | Vert(LL) | -0.05 | 6-7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.47 | Vert(CT) | -0.09 | 6-7 | >999 | 180 | MT18HS | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | NO | WB | 0.78 | Horz(CT) | 0.02 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 128 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 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=0-4-0, 8= Mechanical
Max Horiz 8=-64 (LC 4)
Max Grav 5=3020 (LC 1), 8=3484 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-2677/0, 1-2=-3973/0, 2-3=-3937/0, 3-4=-67/10, 4-5=-570/0
BOT CHORD 7-8=-32/87, 6-7=0/3973, 5-6=0/3937
WEBS 3-5=-4535/0, 2-7=-2045/0, 1-7=0/4564, 2-6=-45/3, 3-6=-15/108

**NOTES**
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x3 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Bearings are assumed to be: , Joint 5 SPF No.2 crushing capacity of 425 psi.
9) Refer to girder(s) for truss to truss connections.
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.

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 5-8=-20
Concentrated Loads (lb)
Vert: 9=-885, 10=-885, 11=-885, 12=-885, 13=-885, 14=-937

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

June 21,2024



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/29/2024 6:57:03

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | VE1 | Valley | 1 | 1 | I66371538 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:52
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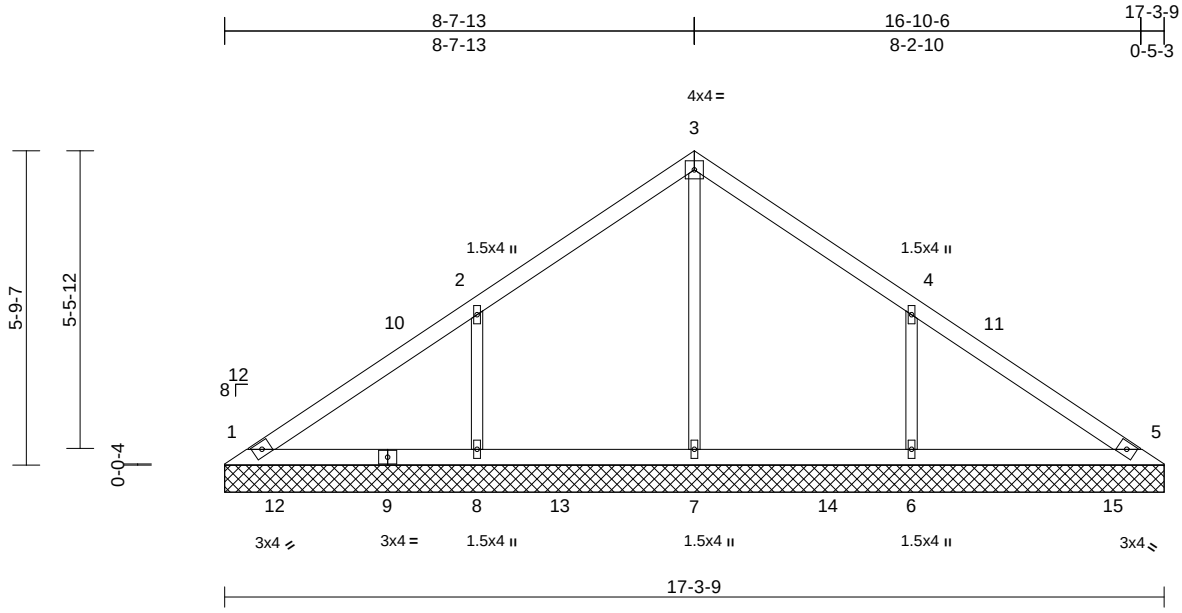



Scale = 1:42.4

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.29 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.16 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.13 | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 63 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 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=17-3-9, 5=17-3-9, 6=17-3-9, 7=17-3-9, 8=17-3-9
Max Horiz 1=-85 (LC 10)
Max Uplift 6=-44 (LC 12), 8=-44 (LC 12)
Max Grav 1=181 (LC 18), 5=175 (LC 1), 6=500 (LC 18), 7=342 (LC 17), 8=500 (LC 17)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-123/80, 2-3=-140/108, 3-4=-140/109, 4-5=-102/64
BOT CHORD 1-8=-21/72, 7-8=-21/72, 6-7=-21/72, 5-6=-21/72
WEBS 3-7=-180/0, 2-8=-340/174, 4-6=-340/174

**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; B=45ft; L=24ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-5-12 to 3-5-12, Exterior(2N) 3-5-12 to 8-8-3, Corner (3R) 8-8-3 to 11-8-3, Exterior(2N) 11-8-3 to 16-10-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 8 and 44 lb uplift at joint 6.
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.

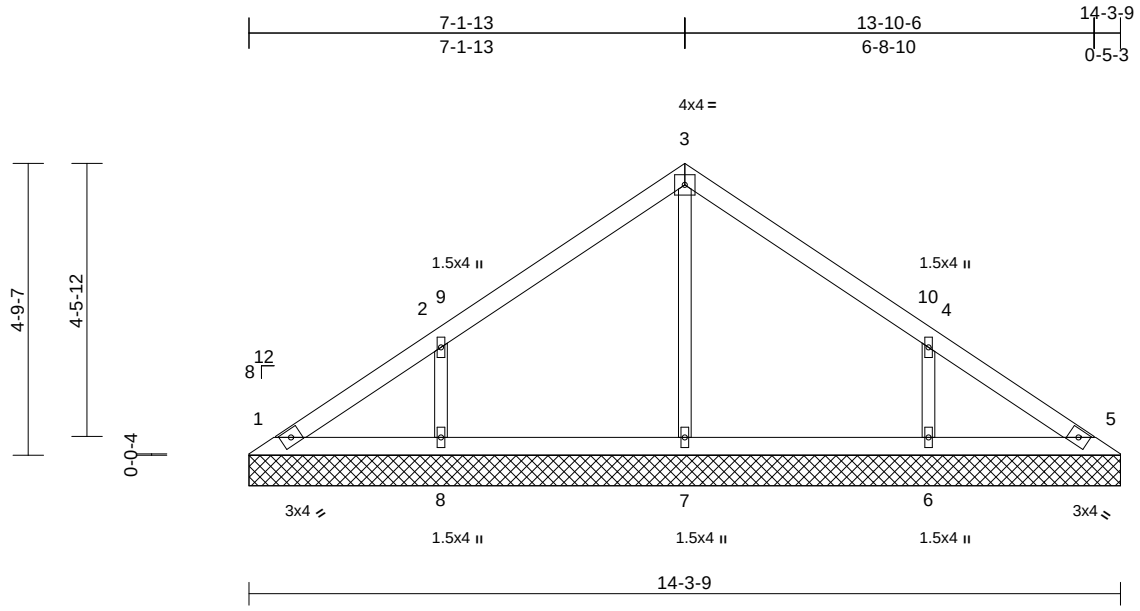
**LOAD CASE(S)** Standard

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

June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | VE2 | Valley | 1 | 1 | I66371539 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:52 Page: 1
ID:nYpuvKbhP5gElc4wzwNgspytxiV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f




Scale = 1:37.8

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.21 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.12 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.10 | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 51 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 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=14-3-9, 5=14-3-9, 6=14-3-9, 7=14-3-9, 8=14-3-9
Max Horiz 1=70 (LC 11)
Max Uplift 6=-37 (LC 12), 8=-37 (LC 12)
Max Grav 1=110 (LC 1), 5=110 (LC 1), 6=361 (LC 24), 7=280 (LC 1), 8=361 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-102/53, 2-3=-140/96, 3-4=-140/96, 4-5=-85/35
BOT CHORD 1-8=-12/58, 7-8=-12/58, 6-7=-12/58, 5-6=-12/58
WEBS 3-7=-198/0, 2-8=-285/170, 4-6=-285/170

**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; B=45ft; L=24ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-5-12 to 3-5-12, Exterior(2N) 3-5-12 to 7-2-3, Corner (3R) 7-2-3 to 10-2-3, Exterior(2N) 10-2-3 to 13-10-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 8 and 37 lb uplift at joint 6.
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.

**LOAD CASE(S)** Standard

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

June 21,2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/29/2024 6:57:03

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | VE3 | Valley | 1 | 1 | I66371540 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:52 Page: 1
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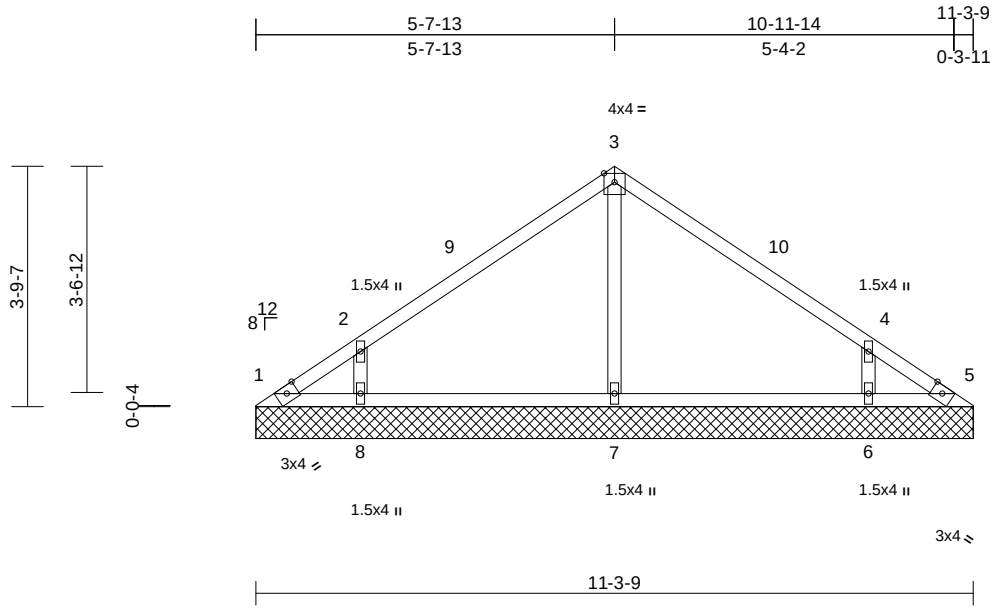


Scale = 1:36.3

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.37 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.20 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.07 | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 24 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x3 SPF No.2
BOT CHORD 2x3 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=11-3-9, 5=11-3-9, 6=11-3-9, 7=11-3-9, 8=11-3-9
Max Horiz 1=-56 (LC 10)
Max Uplift 1=-30 (LC 10), 5=-19 (LC 11), 6=-37 (LC 12), 8=-37 (LC 12)
Max Grav 1=30 (LC 11), 5=21 (LC 12), 6=339 (LC 24), 7=298 (LC 1), 8=339 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-70/53, 2-3=-128/84, 3-4=-128/83, 4-5=-65/41
BOT CHORD 1-8=-9/46, 7-8=-9/46, 6-7=-9/46, 5-6=-9/46
WEBS 3-7=-212/31, 2-8=-281/201, 4-6=-281/201

**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; B=45ft; L=24ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-4-3 to 3-4-3, Exterior(2N) 3-4-3 to 5-8-3, Corner(3R) 5-8-3 to 8-8-3, Exterior(2N) 8-8-3 to 11-0-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1, 19 lb uplift at joint 5, 37 lb uplift at joint 8 and 37 lb uplift at joint 6.
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.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | VE7 | Valley | 1 | 1 | I66371541 Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:52
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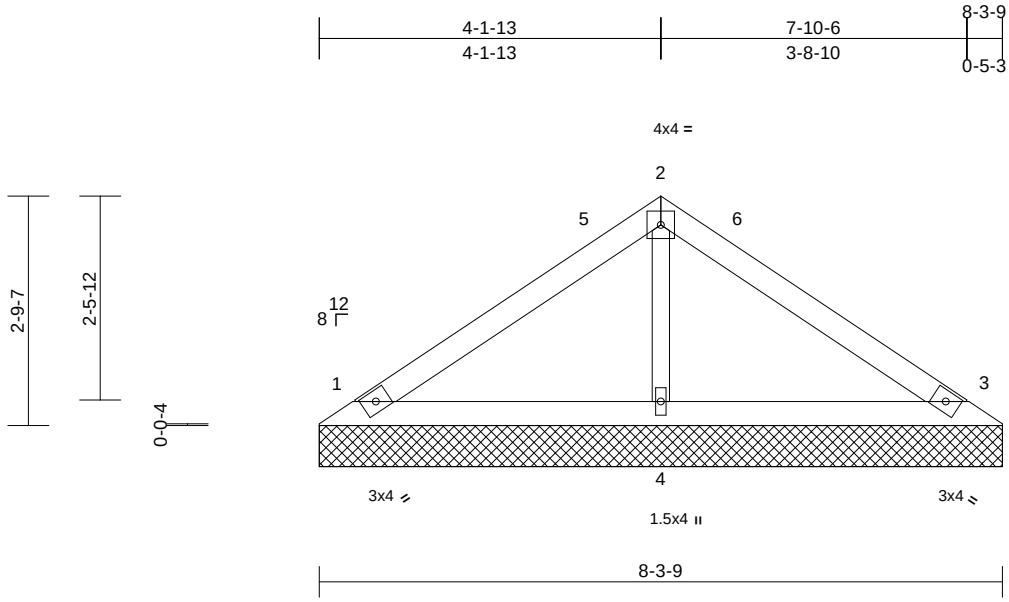
Page: 1




Scale = 1:28

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.30 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.14 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.04 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 27 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 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=8-3-9, 3=8-3-9, 4=8-3-9
Max Horiz 1=-39 (LC 10)
Max Uplift 1=-13 (LC 12), 3=-13 (LC 12)
Max Grav 1=187 (LC 1), 3=187 (LC 1), 4=291 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-112/65, 2-3=-112/58
BOT CHORD 1-4=-1/47, 3-4=-1/47
WEBS 2-4=-199/80

**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; B=45ft; L=24ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-5-12 to 3-5-12, Exterior(2N) 3-5-12 to 4-2-3, Corner (3R) 4-2-3 to 7-2-3, Exterior(2N) 7-2-3 to 7-10-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 13 lb uplift at joint 3.
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.

**LOAD CASE(S)** Standard

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

June 21,2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/29/2024 6:57:03

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | VE8 | Valley | 1 | 1 | I66371542 |
| | | | | | Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:52

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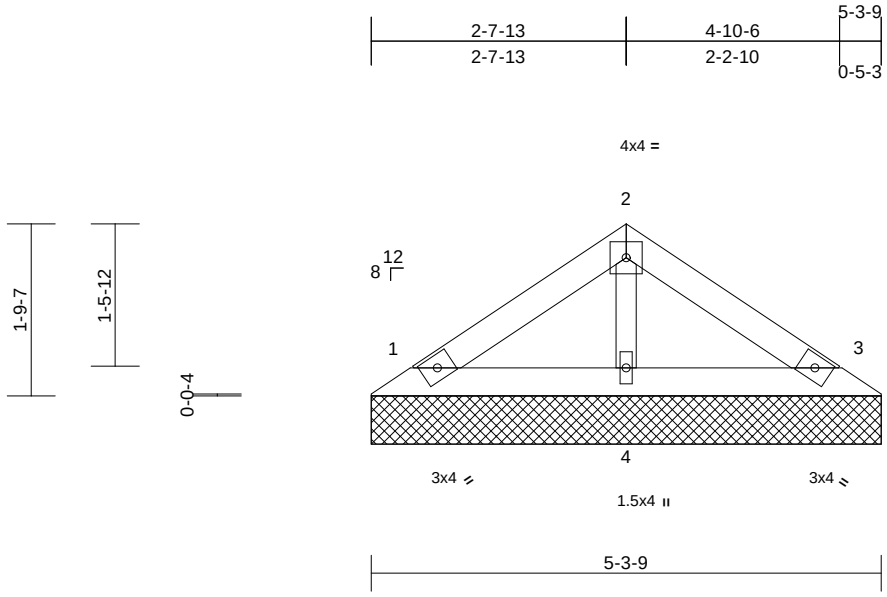
Page: 1




Scale = 1:23.9

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.10 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.02 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 17 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2

**BRACING**

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

**REACTIONS** (size) 1=5-3-9, 3=5-3-9, 4=5-3-9
Max Horiz 1=23 (LC 11)
Max Uplift 1=-8 (LC 12), 3=-8 (LC 12)
Max Grav 1=111 (LC 1), 3=111 (LC 1), 4=173 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-66/32, 2-3=-66/32
BOT CHORD 1-4=-1/28, 3-4=-1/28
WEBS 2-4=-118/43

**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; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1 and 8 lb uplift at joint 3.
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.

**LOAD CASE(S)** Standard

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

June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | VE9 | Valley | 1 | 1 | I66371543 |
| | | | | | Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:52 Page: 1
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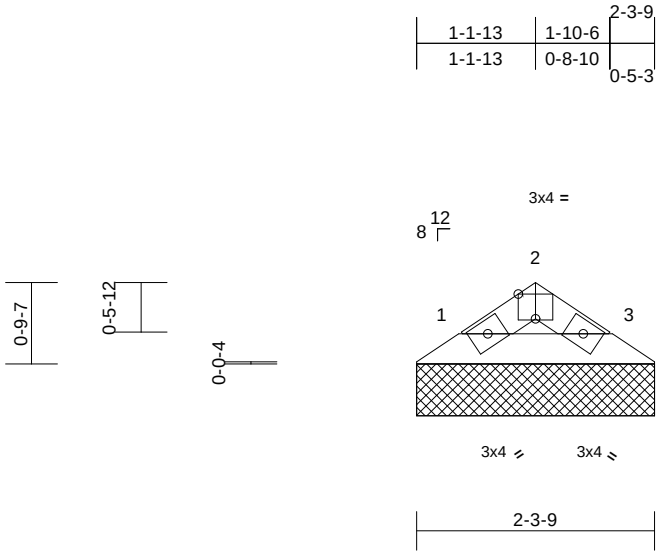



Scale = 1:22.3

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 (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.01 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 6 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 2-4-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=2-3-9, 3=2-3-9
Max Horiz 1=-7 (LC 10)
Max Grav 1=63 (LC 1), 3=63 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-55/23, 2-3=-55/23
BOT CHORD 1-3=-7/37

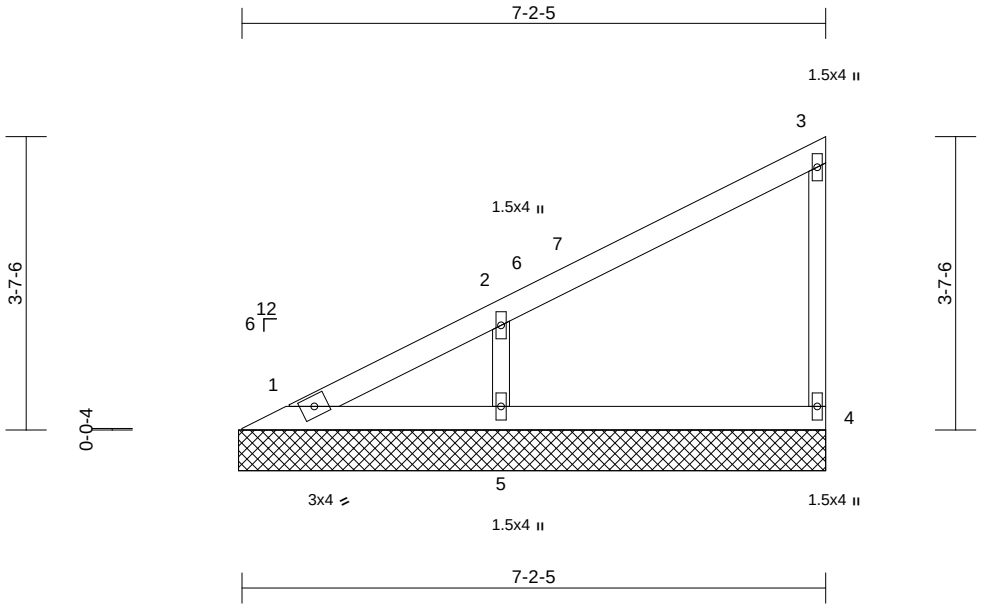
**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
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.

**LOAD CASE(S)** Standard


June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | VG10 | Valley | 1 | 1 | I66371544 |
| | | | | | Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:52 Page: 1
ID:kwweK0dxxiwx_wEJ5LQ8xEytxiT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




Scale = 1:28.4

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.23 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.12 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.06 | Horiz(TL) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 25 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 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=7-2-13, 4=7-2-13, 5=7-2-13
Max Horiz 1=89 (LC 9)
Max Uplift 4=-3 (LC 9), 5=-18 (LC 12)
Max Grav 1=73 (LC 18), 4=141 (LC 1), 5=377 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-230/126, 2-3=-102/77, 3-4=-110/120
BOT CHORD 1-5=-44/59, 4-5=-44/59
WEBS 2-5=-293/258

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-7-9 to 3-7-9, Exterior(2N) 3-7-9 to 7-1-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 4 and 18 lb uplift at joint 5.
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.

**LOAD CASE(S)** Standard

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

June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | VG11 | Valley | 1 | 1 | I66371545 |
| | | | | | Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:53 Page: 1
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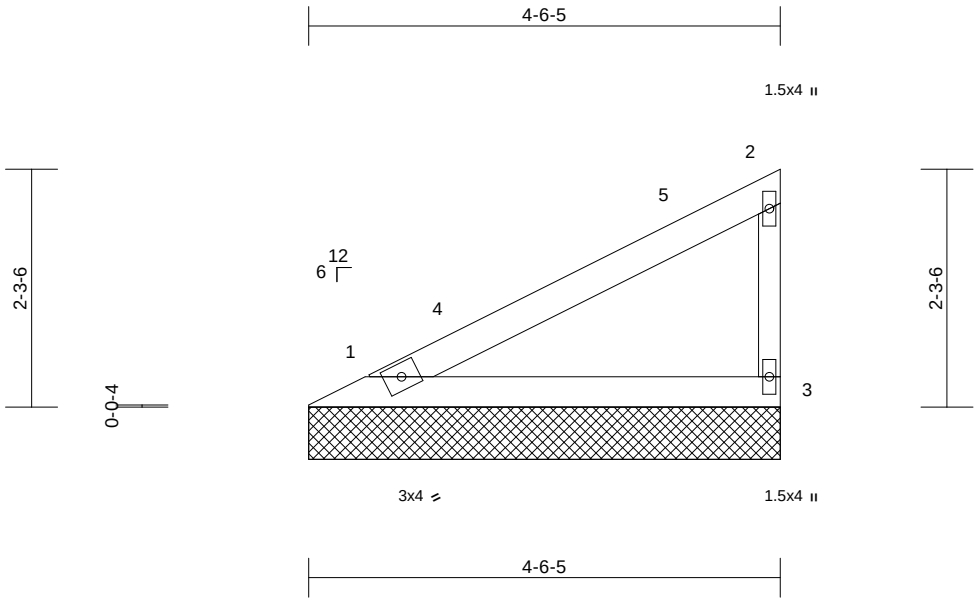


Scale = 1:22.1

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.32 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.18 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 15 lb | FT = 20% |

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

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 4-6-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=4-6-5, 3=4-6-5
Max Horiz 1=53 (LC 9)
Max Grav 1=172 (LC 1), 3=172 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-107/66, 2-3=-134/161
BOT CHORD 1-3=-26/35

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-7-9 to 3-7-9, Exterior(2N) 3-7-9 to 4-5-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
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.

**LOAD CASE(S)** Standard

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

June 21,2024

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | VG12 | Valley | 1 | 1 | I66371546 |
| | | | | | Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:53



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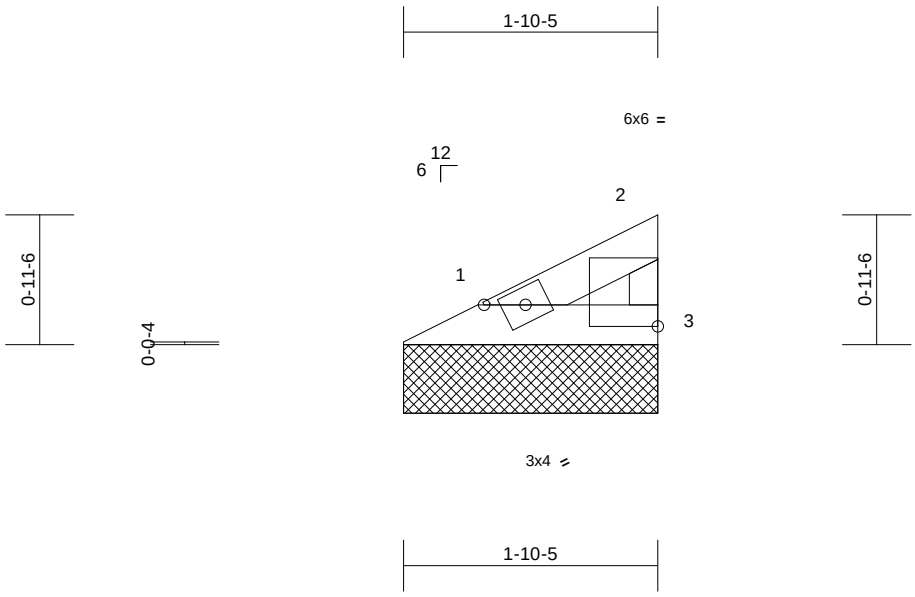


Scale = 1:16.8

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.02 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.01 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 5 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2

**BRACING**

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

**REACTIONS** (size) 1=1-10-5, 3=1-10-5
Max Horiz 1=16 (LC 9)
Max Grav 1=52 (LC 1), 3=52 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-25/18, 2-3=-41/32
BOT CHORD 1-3=-8/9

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
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.

**LOAD CASE(S)** Standard

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

June 21,2024



MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | VG13 | Valley | 1 | 1 | I66371547 |
| | | | | | Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:53

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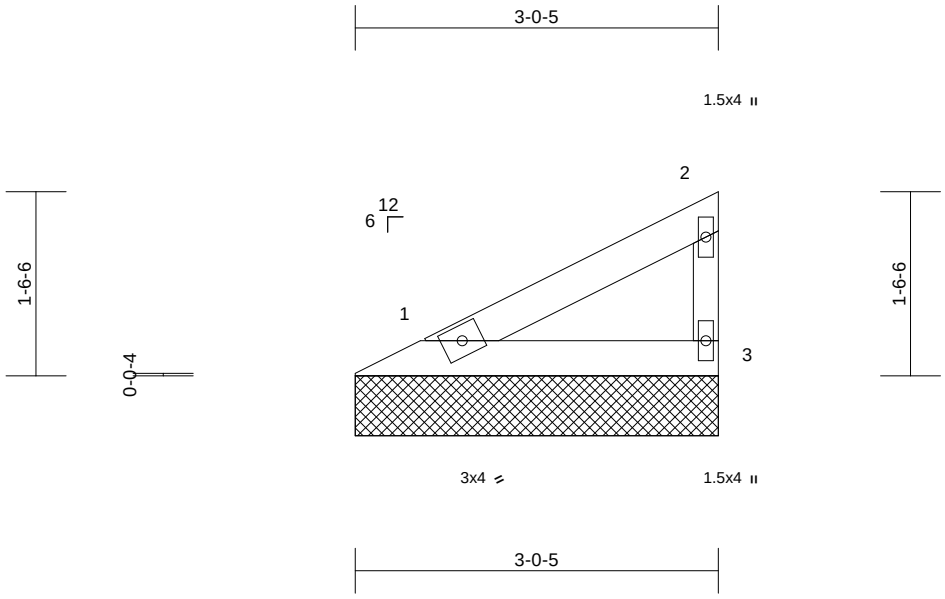


Scale = 1:19.2

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.11 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.06 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 9 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2

**BRACING**

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

**REACTIONS** (size) 1=3-0-5, 3=3-0-5
Max Horiz 1=32 (LC 9)
Max Grav 1=105 (LC 1), 3=105 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-50/35, 2-3=-82/65
BOT CHORD 1-3=-16/17

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
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.

**LOAD CASE(S)** Standard

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

June 21,2024



MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

| Job | Truss | Truss Type | Qty | Ply | Roof - HR Lot 193 |
|---|---|---|---|---|---|
| P240574-01 | VG14 | Valley | 1 | 1 | I66371548 |
| | | | | | Job Reference (optional) |

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Thu Jun 20 09:01:53 Page: 1
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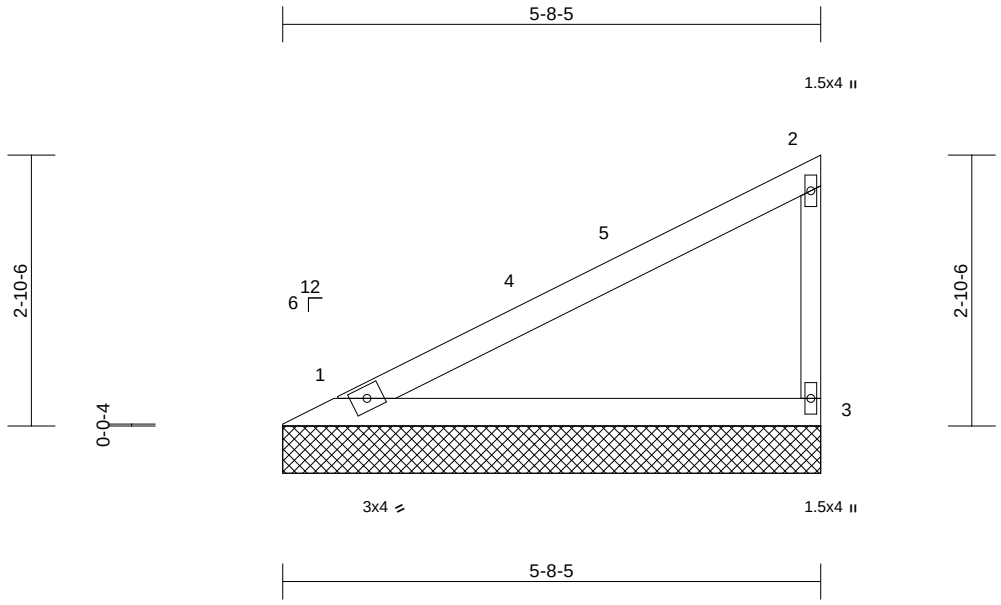



Scale = 1:24.4

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.58 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.31 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 19 lb | FT = 20% |

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

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 5-8-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=5-8-5, 3=5-8-5
Max Horiz 1=68 (LC 11)
Max Grav 1=225 (LC 1), 3=225 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-133/85, 2-3=-175/195
BOT CHORD 1-3=-34/45

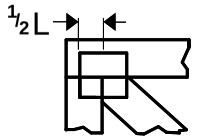
**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-7-9 to 3-7-9, Exterior(2N) 3-7-9 to 5-7-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
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.

**LOAD CASE(S)** Standard

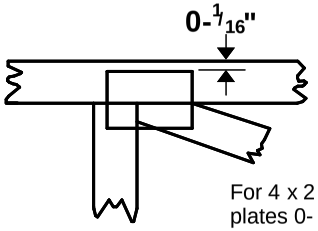

June 21,2024

# 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.

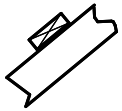
* Plate location details available in MiTek software or upon request.

## PLATE SIZE

4 x 4

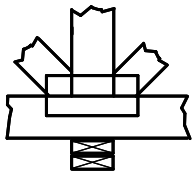
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

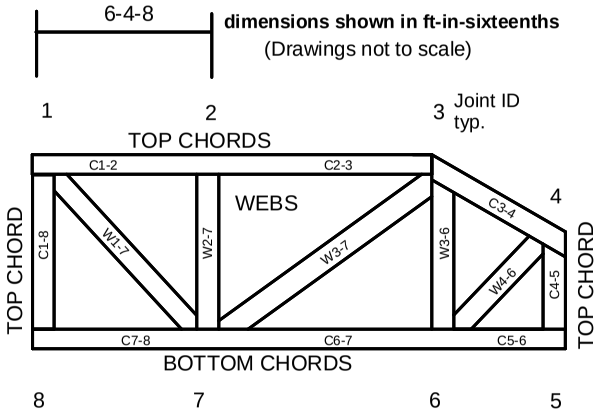


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

**Industry Standards:**

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

# Design General Notes

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

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



MiTek®



# 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.