MiTek®

RE: P250254-01
Roof - BF Lot 440

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

**Site Information:**

Customer: Clayton Properties Project Name: P250254-01
Lot/Block: 440 Model: Carolina - Modern Farmhouse
Address: 1131 SE Ranchland St. Subdivision: Bailey Farms
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
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 38 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal# | Truss Name | Date | No. | Seal# | Truss Name | Date |
|---|---|---|---|---|---|---|---|
| 1 | I68187632 | A1 | 9/13/2024 | 21 | I68187652 | G2 | 9/13/2024 |
| 2 | I68187633 | A2 | 9/13/2024 | 22 | I68187653 | G3 | 9/13/2024 |
| 3 | I68187634 | A3 | 9/13/2024 | 23 | I68187654 | J1 | 9/13/2024 |
| 4 | I68187635 | A4 | 9/13/2024 | 24 | I68187655 | J2 | 9/13/2024 |
| 5 | I68187636 | A5 | 9/13/2024 | 25 | I68187656 | J3 | 9/13/2024 |
| 6 | I68187637 | A6 | 9/13/2024 | 26 | I68187657 | J4 | 9/13/2024 |
| 7 | I68187638 | A7 | 9/13/2024 | 27 | I68187658 | J5 | 9/13/2024 |
| 8 | I68187639 | B1 | 9/13/2024 | 28 | I68187659 | V1 | 9/13/2024 |
| 9 | I68187640 | B2 | 9/13/2024 | 29 | I68187660 | V2 | 9/13/2024 |
| 10 | I68187641 | B3 | 9/13/2024 | 30 | I68187661 | V3 | 9/13/2024 |
| 11 | I68187642 | C1 | 9/13/2024 | 31 | I68187662 | V4 | 9/13/2024 |
| 12 | I68187643 | C2 | 9/13/2024 | 32 | I68187663 | V5 | 9/13/2024 |
| 13 | I68187644 | CG1 | 9/13/2024 | 33 | I68187664 | V6 | 9/13/2024 |
| 14 | I68187645 | D1 | 9/13/2024 | 34 | I68187665 | V7 | 9/13/2024 |
| 15 | I68187646 | D2 | 9/13/2024 | 35 | I68187666 | V8 | 9/13/2024 |
| 16 | I68187647 | D5 | 9/13/2024 | 36 | I68187667 | V9 | 9/13/2024 |
| 17 | I68187648 | E1 | 9/13/2024 | 37 | I68187668 | V10 | 9/13/2024 |
| 18 | I68187649 | E2 | 9/13/2024 | 38 | I68187669 | V11 | 9/13/2024 |
| 19 | I68187650 | F1 | 9/13/2024 | | | | |
| 20 | I68187651 | G1 | 9/13/2024 | | | | |

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

Truss Design Engineer's Name: Sevier, Scott

My license renewal date for the state of Missouri is December 31, 2025.

Missouri COA: 001193


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

September 13, 2024

Sevier, Scott

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187632 |
|---|---|---|---|---|---|---|
| P250254-01 | A1 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:23:45 Page: 1
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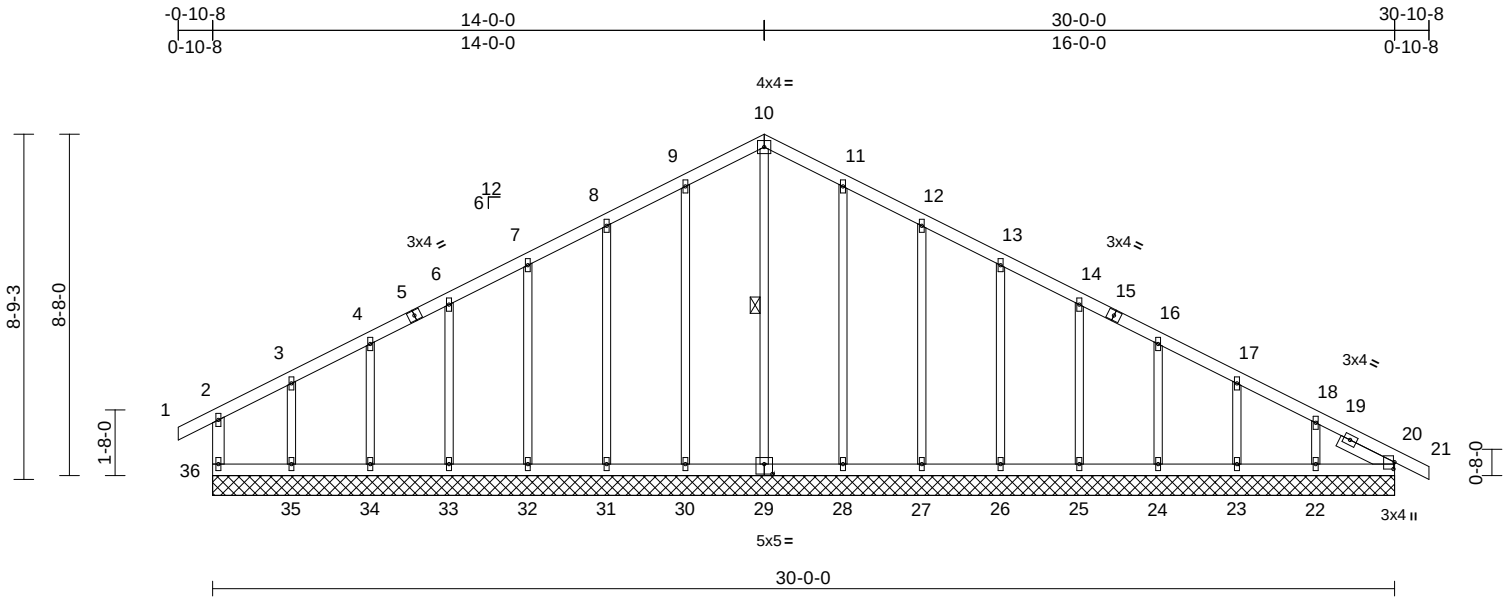


Scale = 1:58.5

Plate Offsets (X, Y): [20:0-2-1,0-0-5], [29:0-2-8,0-3-0]

| 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 | 0.09 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.06 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.20 | Horz(CT) | 0.01 | 20 | 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 2x4 SP No.2
OTHERS 2x3 SPF No.2
SLIDER Right 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.
WEBS 1 Row at midpt 10-29

**REACTIONS** (size) 20=30-0-0, 22=30-0-0, 23=30-0-0, 24=30-0-0, 25=30-0-0, 26=30-0-0, 27=30-0-0, 28=30-0-0, 29=30-0-0, 30=30-0-0, 31=30-0-0, 32=30-0-0, 33=30-0-0, 34=30-0-0, 35=30-0-0, 36=30-0-0
Max Horiz 36=-157 (LC 10)
Max Uplift 20=-59 (LC 9), 22=-95 (LC 13), 23=-58 (LC 13), 24=-62 (LC 13), 25=-61 (LC 13), 26=-60 (LC 13), 27=-65 (LC 13), 28=-55 (LC 13), 30=-51 (LC 12), 31=-67 (LC 12), 32=-59 (LC 12), 33=-64 (LC 12), 34=-50 (LC 12), 35=-109 (LC 12), 36=-33 (LC 13)
Max Grav 20=157 (LC 19), 22=180 (LC 1), 23=181 (LC 26), 24=180 (LC 1), 25=180 (LC 26), 26=180 (LC 1), 27=179 (LC 26), 28=189 (LC 26), 29=226 (LC 21), 30=189 (LC 25), 31=179 (LC 25), 32=180 (LC 1), 33=179 (LC 25), 34=184 (LC 1), 35=164 (LC 25), 36=164 (LC 1)

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

TOP CHORD 2-36=-147/112, 1-2=0/32, 2-3=-58/51, 3-4=-52/110, 4-6=-70/162, 6-7=-89/216, 7-8=-108/270, 8-9=-127/327, 9-10=-145/374, 10-11=-145/374, 11-12=-127/327, 12-13=-108/270, 13-14=-89/217, 14-16=-77/172, 16-17=-91/145, 17-18=-110/116, 18-20=-168/107, 20-21=0/6
BOT CHORD 35-36=-80/168, 34-35=-80/168, 33-34=-80/168, 32-33=-80/168, 31-32=-80/168, 30-31=-80/168, 28-30=-80/168, 27-28=-80/168, 26-27=-80/168, 25-26=-80/168, 24-25=-80/168, 23-24=-80/168, 22-23=-80/168, 20-22=-80/168
WEBS 10-29=-243/46, 9-30=-149/82, 8-31=-139/104, 7-32=-140/96, 6-33=-139/97, 4-34=-144/121, 3-35=-124/161, 11-28=-149/82, 12-27=-139/104, 13-26=-140/95, 14-25=-140/97, 16-24=-140/96, 17-23=-142/122, 18-22=-136/163

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 1-1-8 to 6-0-0, Exterior(2N) 6-0-0 to 16-0-0, Corner(3R) 16-0-0 to 21-0-0, Exterior(2N) 21-0-0 to 32-10-8 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) 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 36, 20, 30, 31, 32, 33, 34, 35, 28, 27, 26, 25, 24, 23, and 22. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187633 |
|---|---|---|---|---|---|---|
| P250254-01 | A2 | Common | 6 | 1 | Job Reference (optional) | |

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

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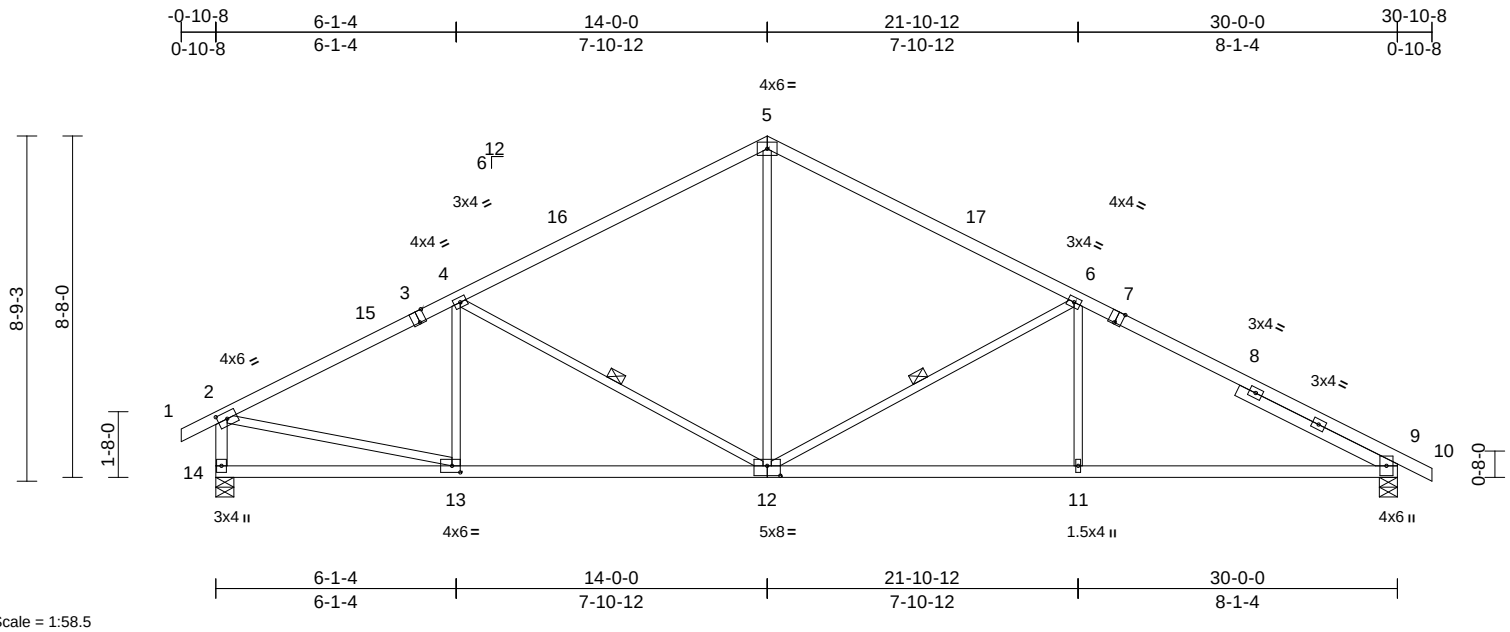


Scale = 1:58.5

Plate Offsets (X, Y): [2:0-2-15,0-2-0], [3:0-2-0,Edge], [7:0-2-0,Edge], [9:0-3-9,0-1-5], [12:0-4-0,0-3-0], [13:0-2-8,0-2-0]

| 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 | 0.61 | Vert(LL) | -0.11 | 9-11 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.74 | Vert(CT) | -0.25 | 9-11 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.61 | Horz(CT) | 0.07 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 139 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP 1650F 1.5E *Except* 1-3,7-10:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 14-2:2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 4-5-15

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-3-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-12, 4-12

**REACTIONS** (size) 9=0-5-8, 14=0-5-8
Max Horiz 14=-157 (LC 10)
Max Uplift 9=-233 (LC 13), 14=-218 (LC 12)
Max Grav 9=1404 (LC 1), 14=1415 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-4=-1798/311, 4-5=-1504/342, 5-6=-1504/347, 6-9=-2249/364, 9-10=0/6, 2-14=-1360/304
BOT CHORD 13-14=-125/193, 11-13=-267/1894, 9-11=-217/1894
WEBS 5-12=-73/708, 6-12=-798/306, 6-11=0/335, 4-12=-447/233, 4-13=-207/133, 2-13=-175/1479

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 1-1-8 to 6-1-8, Interior (1) 6-1-8 to 16-0-0, Exterior(2R) 16-0-0 to 21-0-0, Interior (1) 21-0-0 to 32-10-8 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 and 9. This connection is for uplift only and does not consider lateral forces.
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

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

September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187634 |
|---|---|---|---|---|---|---|
| P250254-01 | A3 | Common | 6 | 1 | Job Reference (optional) | |

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

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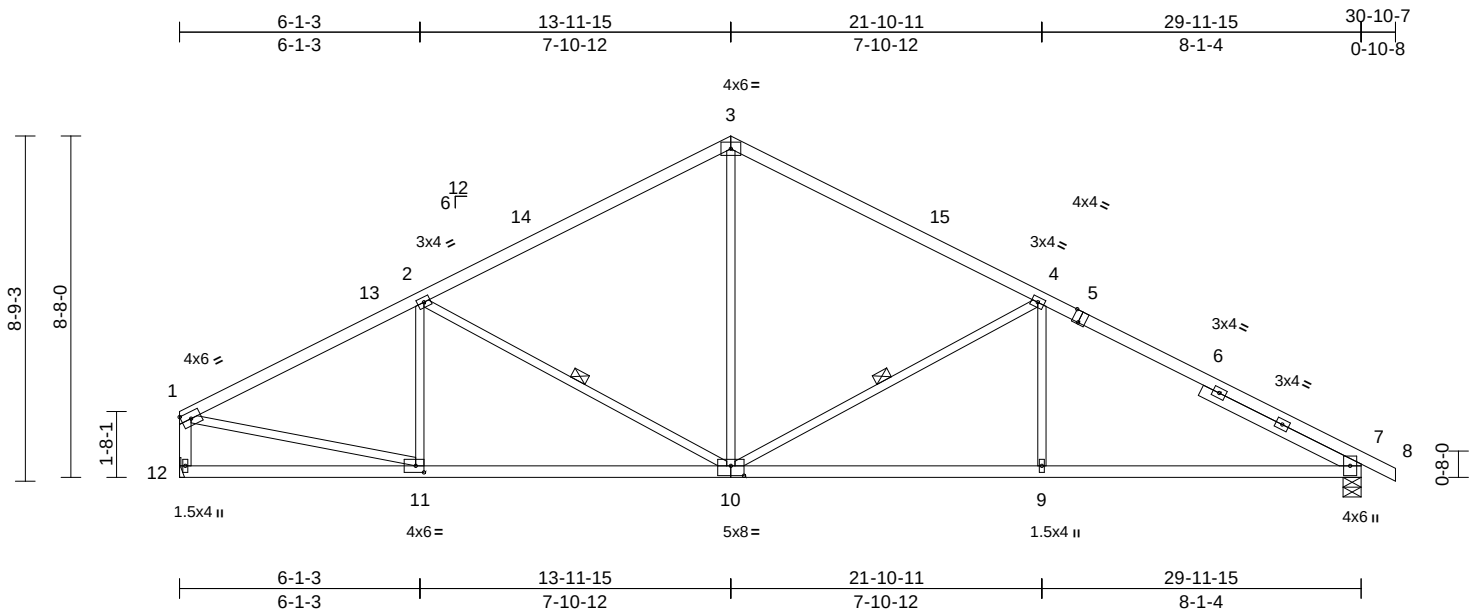


Scale = 1:58.5

Plate Offsets (X, Y): [5:0-2-0,Edge], [7:0-3-9,0-1-5], [10:0-4-0,0-3-0], [11:0-2-8,0-2-0]

| 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 | 0.61 | Vert(LL) | -0.11 | 7-9 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.74 | Vert(CT) | -0.25 | 7-9 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.61 | Horz(CT) | 0.07 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 137 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP 1650F 1.5E *Except* 5-8:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 12-1:2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 4-5-15

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-3-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-10, 2-10

**REACTIONS** (size) 7=0-5-8, 12= Mechanical
Max Horiz 12=-166 (LC 17)
Max Uplift 7=-233 (LC 13), 12=-192 (LC 12)
Max Grav 7=1405 (LC 1), 12=1342 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1802/311, 2-3=-1507/345, 3-4=-1506/346, 4-7=-2251/364, 7-8=0/6, 1-12=-1288/251
BOT CHORD 11-12=-101/192, 9-11=-266/1896, 7-9=-219/1896
WEBS 3-10=-73/711, 4-10=-799/306, 4-9=0/335, 2-10=-455/233, 2-11=-213/142, 1-11=-211/1503

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 2-1-13 to 7-1-13, Interior (1) 7-1-13 to 16-0-0, Exterior(2R) 16-0-0 to 21-0-0, Interior (1) 21-0-0 to 32-10-8 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) Bearings are assumed to be: , Joint 7 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 192 lb uplift at joint 12.
7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187635 |
|---|---|---|---|---|---|---|
| P250254-01 | A4 | Common | 1 | 1 | Job Reference (optional) | |

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

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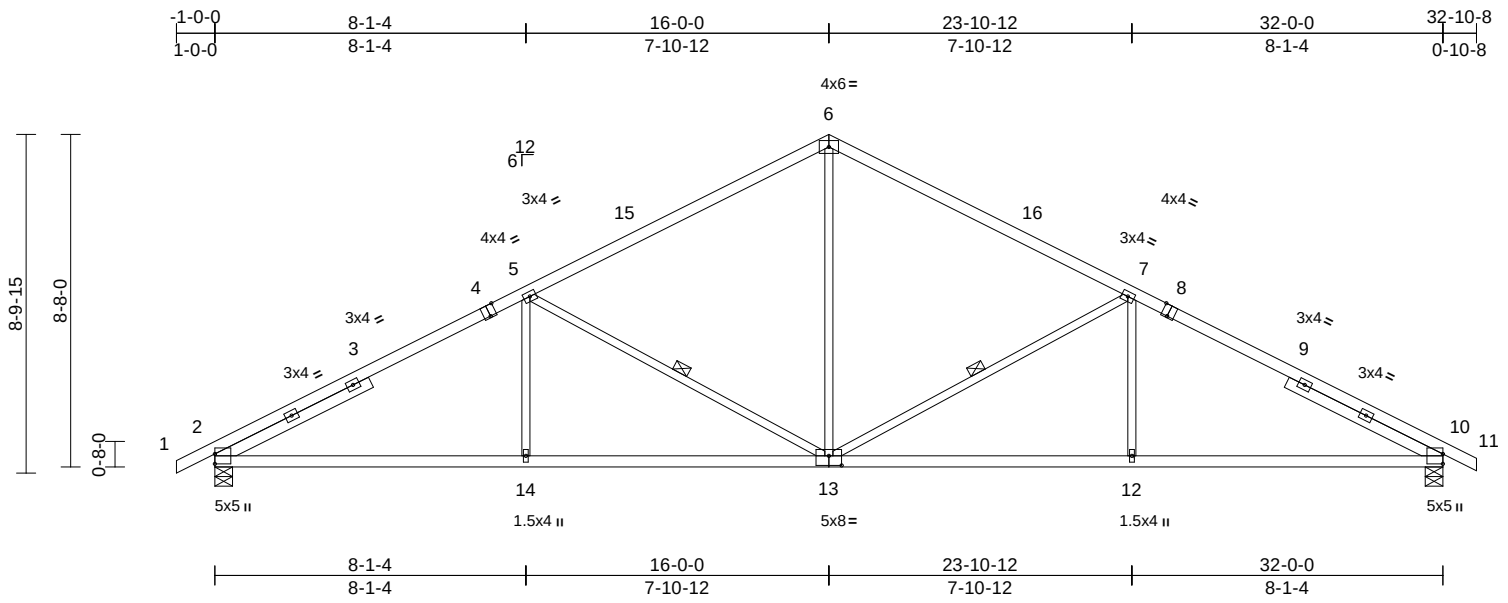


Scale = 1:60

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

| 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 | 0.68 | Vert(LL) | -0.12 | 2-14 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.76 | Vert(CT) | -0.26 | 10-12 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.60 | Horz(CT) | 0.11 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 145 lb | FT = 20% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SP 1650F 1.5E *Except* 1-4,8-11:2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.2 |
| WEBS | 2x3 SPF No.2 |
| SLIDER | Left 2x4 SP No.2 -- 4-5-15, Right 2x4 SP No.2 -- 4-5-15 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 3-0-9 oc purlins. |
| BOT CHORD | Rigid ceiling directly applied or 9-9-4 oc bracing. |
| WEBS | 1 Row at midpt 7-13, 5-13 |

**REACTIONS** (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=161 (LC 16)
Max Uplift 2=-244 (LC 12), 10=-241 (LC 13)
Max Grav 2=1510 (LC 1), 10=1501 (LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-2=0/10, 2-5=-2447/389, 5-6=-1710/373, 6-7=-1710/374, 7-10=-2448/390, 10-11=0/6 |
| BOT CHORD | 2-14=-358/2068, 12-14=-358/2069, 10-12=-242/2069 |
| WEBS | 6-13=-100/889, 7-13=-792/305, 7-12=0/337, 5-13=-790/304, 5-14=0/337 |

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 4-0-0, Interior (1) 4-0-0 to 16-0-0, Exterior(2R) 16-0-0 to 21-0-0, Interior (1) 21-0-0 to 32-10-8 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187636 |
|---|---|---|---|---|---|---|
| P250254-01 | A5 | Common | 8 | 1 | Job Reference (optional) | |

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

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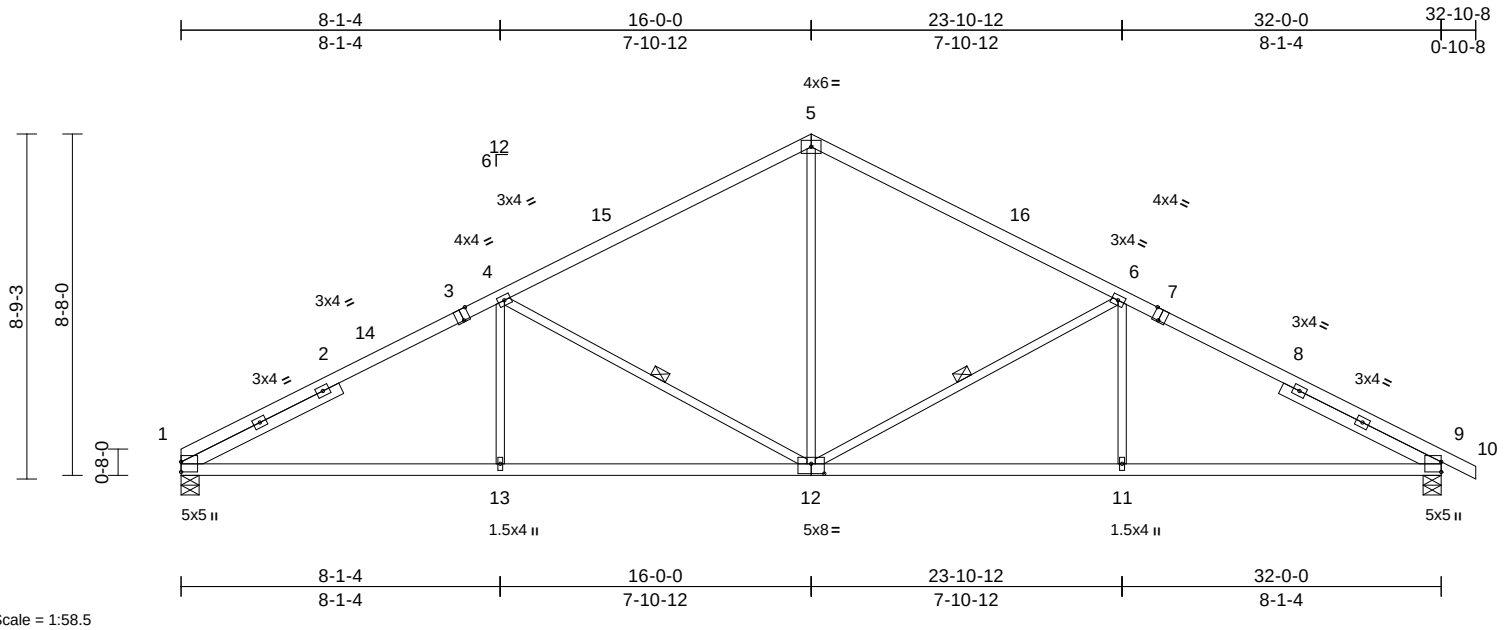


Scale = 1:58.5

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

| 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 | 0.86 | Vert(LL) | -0.12 | 1-13 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.77 | Vert(CT) | -0.27 | 1-13 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.60 | Horz(CT) | 0.11 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 144 lb | FT = 20% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SP 1650F 1.5E *Except* 1-3,7-10:2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.2 |
| WEBS | 2x3 SPF No.2 |
| SLIDER | Left 2x4 SP No.2 -- 4-5-15, Right 2x4 SP No.2 -- 4-5-15 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied. |
| BOT CHORD | Rigid ceiling directly applied or 9-8-11 oc bracing. |
| WEBS | 1 Row at midpt 6-12, 4-12 |

**REACTIONS** (size) 1=0-5-8, 9=0-5-8
Max Horiz 1=-161 (LC 13)
Max Uplift 1=-218 (LC 12), 9=-241 (LC 13)
Max Grav 1=1439 (LC 1), 9=1502 (LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-4=-2454/401, 4-5=-1712/379, 5-6=-1712/374, 6-9=-2450/390, 9-10=0/6 |
| BOT CHORD | 1-13=-361/2075, 11-13=-361/2075, 9-11=-246/2071 |
| WEBS | 5-12=-105/891, 6-12=-792/305, 6-11=0/337, 4-12=-796/306, 4-13=0/339 |

**NOTES**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 5-0-0, Interior (1) 5-0-0 to 16-0-0, Exterior(2R) 16-0-0 to 21-0-0, Interior (1) 21-0-0 to 32-10-8 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 9. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187637 |
|---|---|---|---|---|---|---|
| P250254-01 | A6 | Common | 1 | 1 | Job Reference (optional) | |

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:23:47 Page: 1
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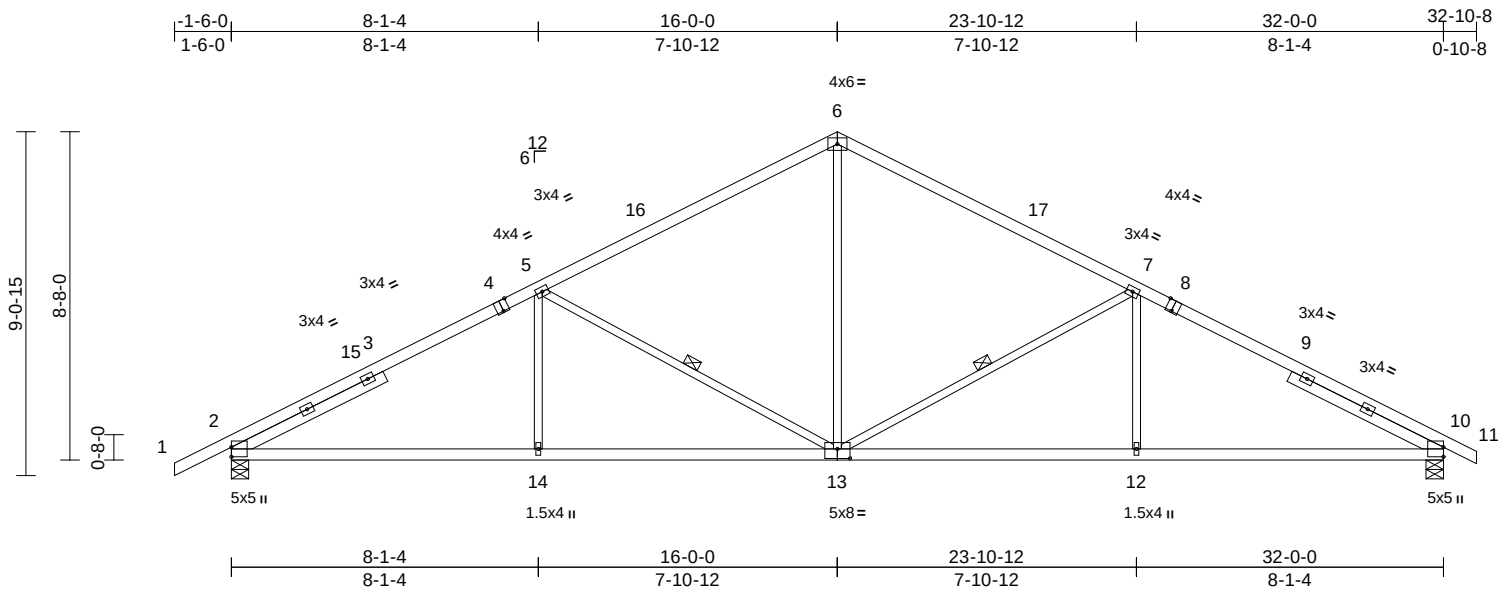


Scale = 1:60.8

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

| 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 | 0.70 | Vert(LL) | -0.12 | 10-12 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.76 | Vert(CT) | -0.26 | 10-12 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.60 | Horz(CT) | 0.11 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 146 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP 1650F 1.5E *Except* 1-4,8-11:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-5-15, Right 2x4 SP No.2 -- 4-5-15

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-0-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-9-11 oc bracing.
WEBS 1 Row at midpt 7-13, 5-13

**REACTIONS** (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=171 (LC 12)
Max Uplift 2=-257 (LC 12), 10=-240 (LC 13)
Max Grav 2=1547 (LC 1), 10=1500 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-5=-2439/379, 5-6=-1706/369, 6-7=-1707/373, 7-10=-2445/389, 10-11=0/6
BOT CHORD 2-14=-354/2058, 12-14=-354/2066, 10-12=-238/2066
WEBS 6-13=-99/885, 7-13=-792/305, 7-12=0/337, 5-13=-782/300, 5-14=0/336

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-6-0 to 3-6-0, Interior (1) 3-6-0 to 16-0-0, Exterior(2R) 16-0-0 to 21-0-0, Interior (1) 21-0-0 to 32-10-8 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 2. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187638 |
|---|---|---|---|---|---|---|
| P250254-01 | A7 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:23:47 Page: 1
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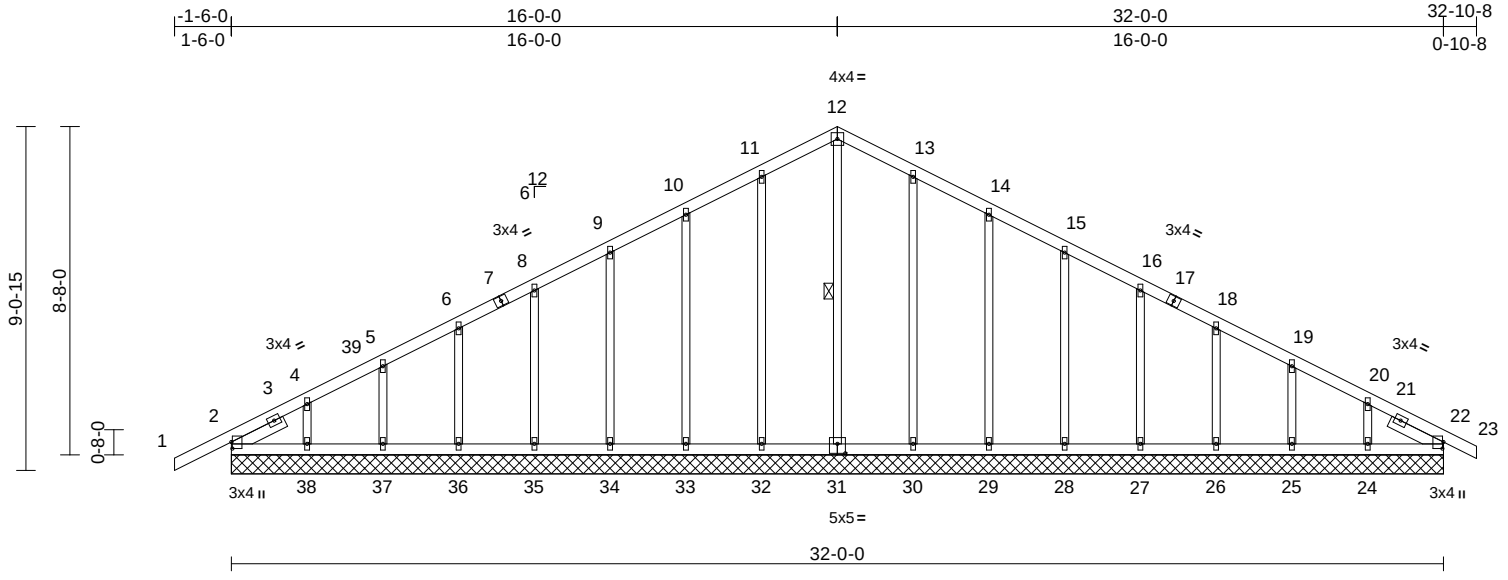


Scale = 1:60.8

Plate Offsets (X, Y): [2:0-2-1,0-0-5], [22:0-2-1,0-0-5], [31:0-2-8,0-3-0]

| 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 | 0.17 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| 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) | 0.01 | 22 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 163 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 -- 1-6-7, Right 2x4 SP No.2 -- 1-6-7

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 12-31

**REACTIONS** (size) 2=32-0-0, 22=32-0-0, 24=32-0-0, 25=32-0-0, 26=32-0-0, 27=32-0-0, 28=32-0-0, 29=32-0-0, 30=32-0-0, 31=32-0-0, 32=32-0-0, 33=32-0-0, 34=32-0-0, 35=32-0-0, 36=32-0-0, 37=32-0-0, 38=32-0-0
Max Horiz 2=171 (LC 12)
Max Uplift 2=-43 (LC 8), 24=-92 (LC 13), 25=-58 (LC 13), 26=-62 (LC 13), 27=-61 (LC 13), 28=-60 (LC 13), 29=-66 (LC 13), 30=-54 (LC 13), 32=-58 (LC 12), 33=-64 (LC 12), 34=-61 (LC 12), 35=-61 (LC 12), 36=-62 (LC 12), 37=-59 (LC 12), 38=-90 (LC 12)
Max Grav 2=236 (LC 1), 22=162 (LC 1), 24=178 (LC 26), 25=181 (LC 1), 26=180 (LC 26), 27=180 (LC 26), 28=180 (LC 1), 29=179 (LC 26), 30=189 (LC 26), 31=197 (LC 22), 32=189 (LC 25), 33=179 (LC 25), 34=180 (LC 1), 35=180 (LC 1), 36=178 (LC 25), 37=187 (LC 1), 38=143 (LC 25)

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

TOP CHORD 1-2=0/27, 2-4=-216/71, 4-5=-148/79, 5-6=-111/93, 6-8=-84/119, 8-9=-68/147, 9-10=-71/185, 10-11=-91/241, 11-12=-109/290, 12-13=-109/290, 13-14=-91/241, 14-15=-71/185, 15-16=-53/131, 16-18=-51/77, 18-19=-62/28, 19-20=-86/23, 20-22=-151/47, 22-23=0/6
BOT CHORD 2-38=-44/177, 37-38=-44/177, 36-37=-44/177, 35-36=-44/177, 34-35=-44/177, 33-34=-44/177, 32-33=-44/177, 30-32=-44/177, 29-30=-44/177, 28-29=-44/177, 27-28=-44/177, 26-27=-44/177, 25-26=-44/177, 24-25=-44/177, 22-24=-44/177
WEBS 12-31=-172/28, 11-32=-149/86, 10-33=-139/102, 9-34=-140/95, 8-35=-140/97, 6-36=-139/96, 5-37=-147/113, 4-38=-106/149, 13-30=-149/86, 14-29=-139/102, 15-28=-140/96, 16-27=-140/97, 18-26=-139/97, 19-25=-142/121, 20-24=-134/179

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -1-6-0 to 3-6-0, Exterior(2N) 3-6-0 to 16-0-0, Corner(3R) 16-0-0 to 21-0-0, Exterior(2N) 21-0-0 to 32-10-8 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) 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) 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 43 lb uplift at joint 2, 58 lb uplift at joint 32, 64 lb uplift at joint 33, 61 lb uplift at joint 34, 61 lb uplift at joint 35, 62 lb uplift at joint 36, 59 lb uplift at joint 37, 90 lb uplift at joint 38, 54 lb uplift at joint 30, 66 lb uplift at joint 29, 60 lb uplift at joint 28, 61 lb uplift at joint 27, 62 lb uplift at joint 26, 58 lb uplift at joint 25 and 92 lb uplift at joint 24.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187639 |
|---|---|---|---|---|---|---|
| P250254-01 | B1 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

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

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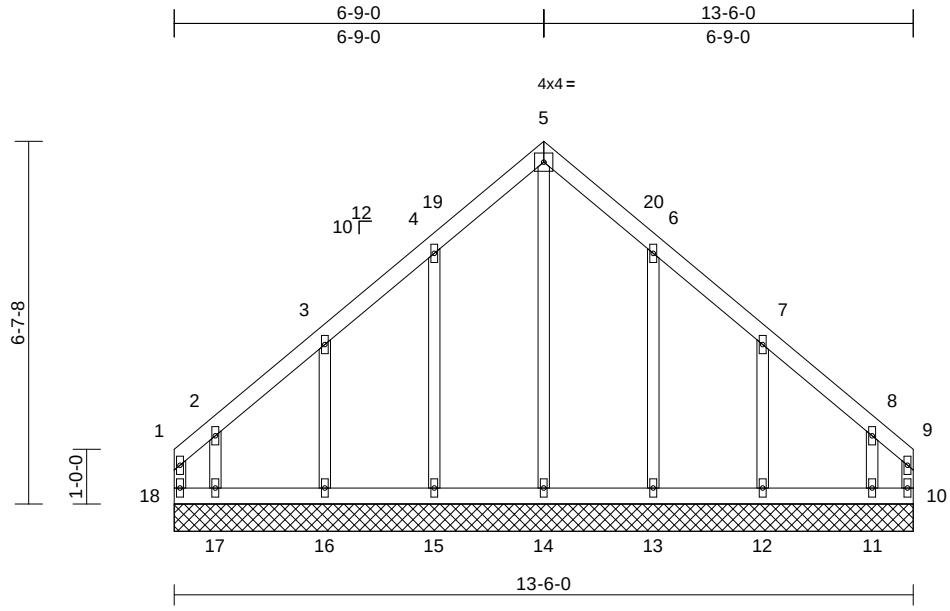


Scale = 1:42.1

| 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 | 0.12 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.27 | Horiz(TL) | 0.00 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | Weight: 66 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) 10=13-6-0, 11=13-6-0, 12=13-6-0, 13=13-6-0, 14=13-6-0, 15=13-6-0, 16=13-6-0, 17=13-6-0, 18=13-6-0
Max Horiz 18=185 (LC 9)
Max Uplift 10=-157 (LC 11), 11=-180 (LC 13), 12=-103 (LC 13), 13=-98 (LC 13), 15=-98 (LC 12), 16=-102 (LC 12), 17=-188 (LC 12), 18=-187 (LC 10)
Max Grav 10=183 (LC 8), 11=229 (LC 20), 12=197 (LC 20), 13=203 (LC 20), 14=199 (LC 22), 15=204 (LC 19), 16=196 (LC 19), 17=243 (LC 19), 18=212 (LC 9)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-140/120, 1-2=-163/147, 2-3=-114/97, 3-4=-96/187, 4-5=-152/302, 5-6=-152/302, 6-7=-95/189, 7-8=-100/79, 8-9=-139/123, 9-10=-120/100
BOT CHORD 17-18=-89/99, 16-17=-89/99, 15-16=-89/99, 14-15=-89/99, 13-14=-89/99, 12-13=-89/99, 11-12=-89/99, 10-11=-89/99
WEBS 5-14=-286/85, 4-15=-164/175, 3-16=-158/213, 2-17=-162/198, 6-13=-163/175, 7-12=-158/213, 8-11=-156/199

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-1-4 to 5-1-4, Exterior(2N) 5-1-4 to 6-9-0, Corner(3R) 6-9-0 to 11-9-0, Exterior(2N) 11-9-0 to 13-4-12 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) 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) 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 187 lb uplift at joint 18, 157 lb uplift at joint 10, 98 lb uplift at joint 15, 102 lb uplift at joint 16, 188 lb uplift at joint 17, 98 lb uplift at joint 13, 103 lb uplift at joint 12 and 180 lb uplift at joint 11.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187640 |
|---|---|---|---|---|---|---|
| P250254-01 | B2 | Common | 4 | 1 | Job Reference (optional) | |

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

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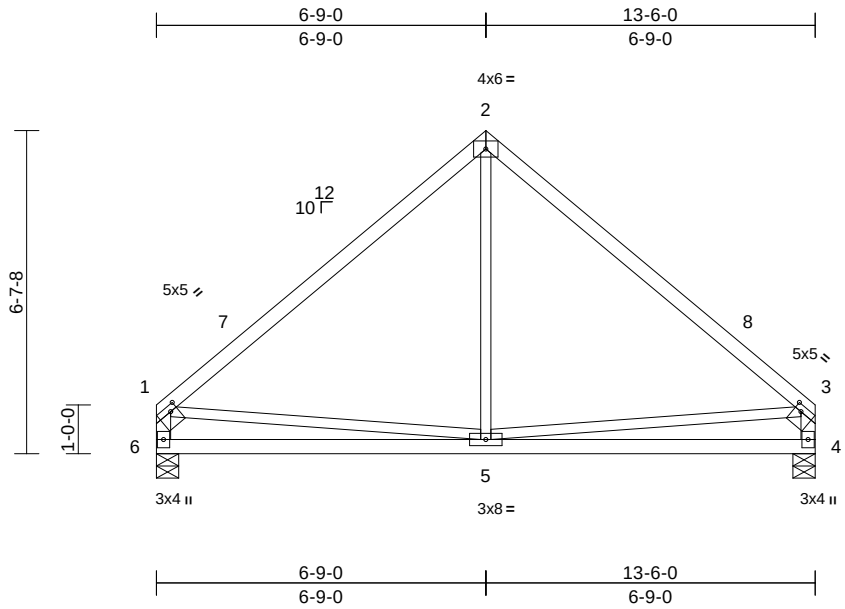


Scale = 1:47.2

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

| 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 | 0.74 | Vert(LL) | -0.04 | 5-6 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.39 | Vert(CT) | -0.08 | 5-6 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.12 | Horz(CT) | 0.01 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 64 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 5-7-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 4=0-5-8, 6=0-5-8
Max Horiz 6=186 (LC 9)
Max Uplift 4=-72 (LC 13), 6=-72 (LC 12)
Max Grav 4=594 (LC 1), 6=594 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-606/170, 2-3=-606/170, 1-6=-536/173, 3-4=-536/173
BOT CHORD 5-6=-240/398, 4-5=-157/263
WEBS 2-5=0/275, 1-5=-106/234, 3-5=-112/236

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 6-9-0, Exterior(2R) 6-9-0 to 11-9-0, Interior (1) 11-9-0 to 13-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 4. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2025

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 |
|---|---|---|---|---|---|
| P250254-01 | B3 | Common Girder | 1 | 2 | Job Reference (optional) I68187641 |

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:23:47 Page: 1
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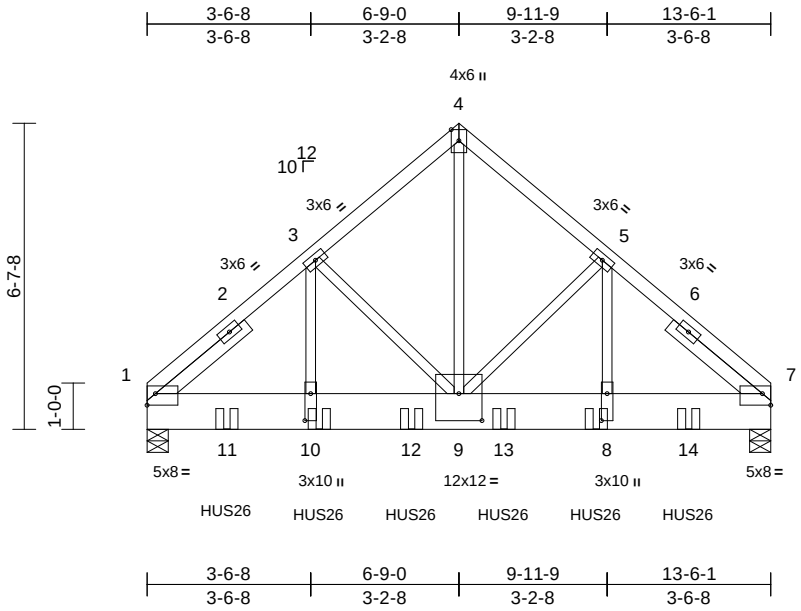


Scale = 1:49.9

Plate Offsets (X, Y): [1:Edge,0-3-0], [7:Edge,0-3-0], [8:0-7-0,0-1-8], [9:0-6-0,0-7-0], [10:0-7-0,0-1-8]

| 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 | 0.94 | Vert(LL) | -0.05 | 9-10 | >999 | 240 | MT20 | 185/148 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.44 | Vert(CT) | -0.08 | 9-10 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.75 | Horz(CT) | 0.02 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 184 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x10 HF No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-6-0, Right 2x4 SP No.2 -- 2-6-1

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-0-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-5-8, 7=0-5-8
Max Horiz 1=169 (LC 11)
Max Uplift 1=-763 (LC 12), 7=-760 (LC 13)
Max Grav 1=4855 (LC 1), 7=4834 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-5093/897, 3-4=-3757/746, 4-5=-3757/746, 5-7=-5091/896
BOT CHORD 1-10=-603/3567, 9-10=-603/3567, 8-9=-553/3565, 7-8=-553/3565
WEBS 3-10=-257/1751, 3-9=-1006/291, 4-9=-814/4354, 5-9=-1003/291, 5-8=-261/1748

**NOTES**
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 3 rows staggered at 0-8-0 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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-2-12 to 5-2-12, Interior (1) 5-2-12 to 6-9-0, Exterior(2R) 6-9-0 to 11-9-0, Interior (1) 11-9-0 to 13-3-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be HF No.2 crushing capacity of 405 psi.
7) Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 7. This connection is for uplift only and does not consider lateral forces.
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 (14-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-8-12 from the left end to 11-8-12 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-7=-70, 1-7=-20
Concentrated Loads (lb)
Vert: 10=-1419 (B), 8=-1419 (B), 11=-1419 (B), 12=-1419 (B), 13=-1419 (B), 14=-1419 (B)

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

September 13,2024

**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)

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187642 |
|---|---|---|---|---|---|---|
| P250254-01 | C1 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

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

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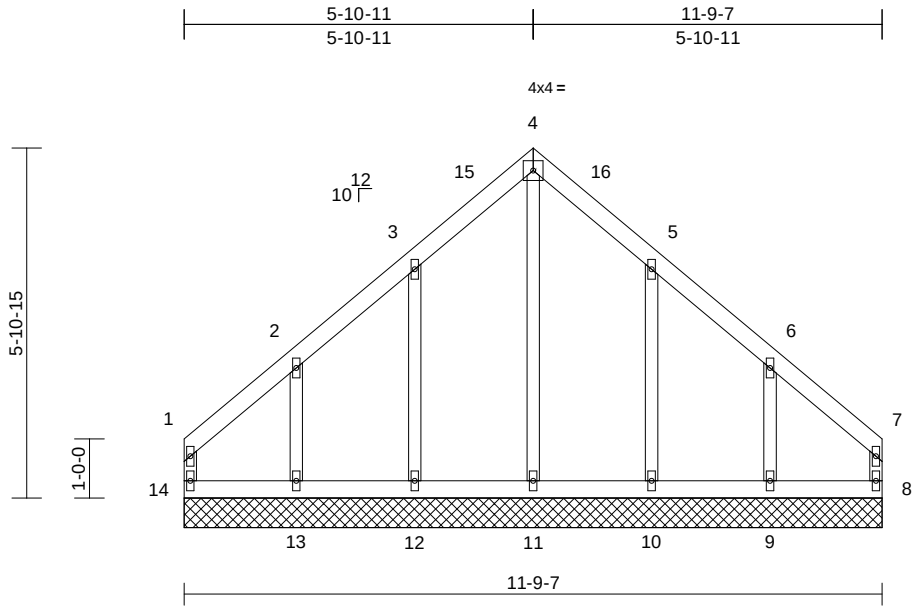


Scale = 1:38.9

| 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 | 0.09 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.21 | Horiz(TL) | 0.00 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | Weight: 55 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) 8=11-9-7, 9=11-9-7, 10=11-9-7, 11=11-9-7, 12=11-9-7, 13=11-9-7, 14=11-9-7
Max Horiz 14=165 (LC 11)
Max Uplift 8=-59 (LC 9), 9=-142 (LC 13), 10=-91 (LC 13), 12=-91 (LC 12), 13=-144 (LC 12), 14=-71 (LC 8)
Max Grav 8=128 (LC 19), 9=231 (LC 20), 10=197 (LC 20), 11=186 (LC 22), 12=196 (LC 19), 13=235 (LC 19), 14=136 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-103/59, 1-2=-118/101, 2-3=-96/185, 3-4=-154/305, 4-5=-154/306, 5-6=-94/186, 6-7=-109/88, 7-8=-96/56
BOT CHORD 13-14=-78/87, 12-13=-78/87, 11-12=-78/87, 10-11=-78/87, 9-10=-78/87, 8-9=-78/87
WEBS 4-11=-280/86, 3-12=-161/201, 2-13=-174/238, 5-10=-161/201, 6-9=-172/239

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-1-4 to 5-1-4, Exterior(2N) 5-1-4 to 5-10-11, Corner(3R) 5-10-11 to 10-10-11, Exterior(2N) 10-10-11 to 11-8-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) 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 71 lb uplift at joint 14, 59 lb uplift at joint 8, 91 lb uplift at joint 12, 144 lb uplift at joint 13, 91 lb uplift at joint 10 and 142 lb uplift at joint 9.
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

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

September 13,2024



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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 |
|---|---|---|---|---|---|
| P250254-01 | C2 | Common Girder | 1 | 2 | Job Reference (optional) I68187643 |

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

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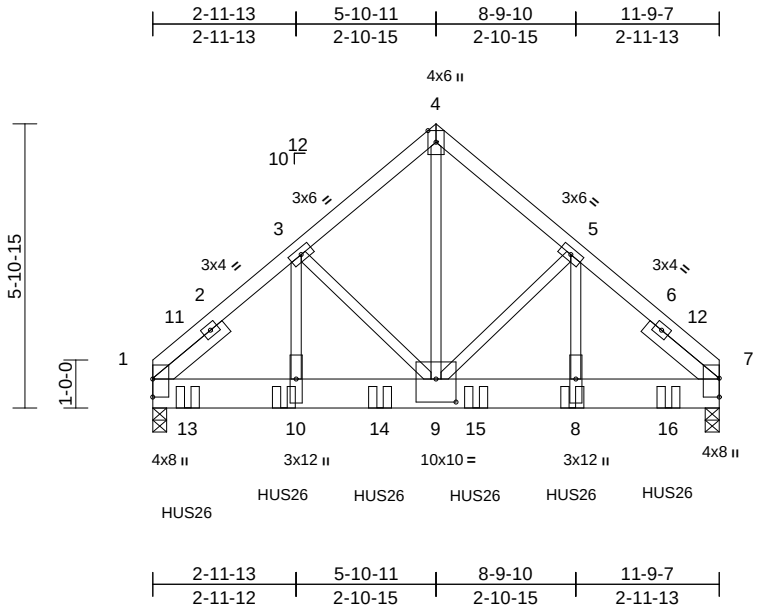


Scale = 1:47.9

Plate Offsets (X, Y): [9:0-5-0,0-5-12]

| 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 | 0.67 | Vert(LL) | -0.04 | 9-10 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.45 | Vert(CT) | -0.07 | 9-10 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.66 | Horz(CT) | 0.02 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 143 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SPF No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-10-10, Right 2x4 SP No.2 -- 1-10-10

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-7, (req. 0-3-9), 7=0-3-8
Max Horiz 1=-151 (LC 31)
Max Uplift 1=-687 (LC 12), 7=-666 (LC 13)
Max Grav 1=4573 (LC 1), 7=4424 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-4555/802, 3-4=-3343/670, 4-5=-3344/670, 5-7=-4554/801
BOT CHORD 1-10=-525/3231, 9-10=-525/3231, 8-9=-495/3233, 7-8=-495/3233
WEBS 3-10=-219/1587, 3-9=-962/283, 4-9=-719/3859, 5-9=-965/285, 5-8=-223/1585

**NOTES**
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-8-0 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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 5-0-0, Interior (1) 5-0-0 to 5-10-11, Exterior(2R) 5-10-11 to 10-10-11, Interior (1) 10-10-11 to 11-9-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) WARNING: Required bearing size at joint(s) 1 greater than input bearing size.
7) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
8) Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 7. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-8-12 from the left end to 10-8-12 to connect truss(es) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-7=-70, 1-7=-20
Concentrated Loads (lb)
Vert: 10=-1322 (B), 8=-1322 (B), 13=-1325 (B), 14=-1322 (B), 15=-1322 (B), 16=-1322 (B)

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187644 |
|---|---|---|---|---|---|---|
| P250254-01 | CG1 | Diagonal Hip Girder | 1 | 1 | Job Reference (optional) | |

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

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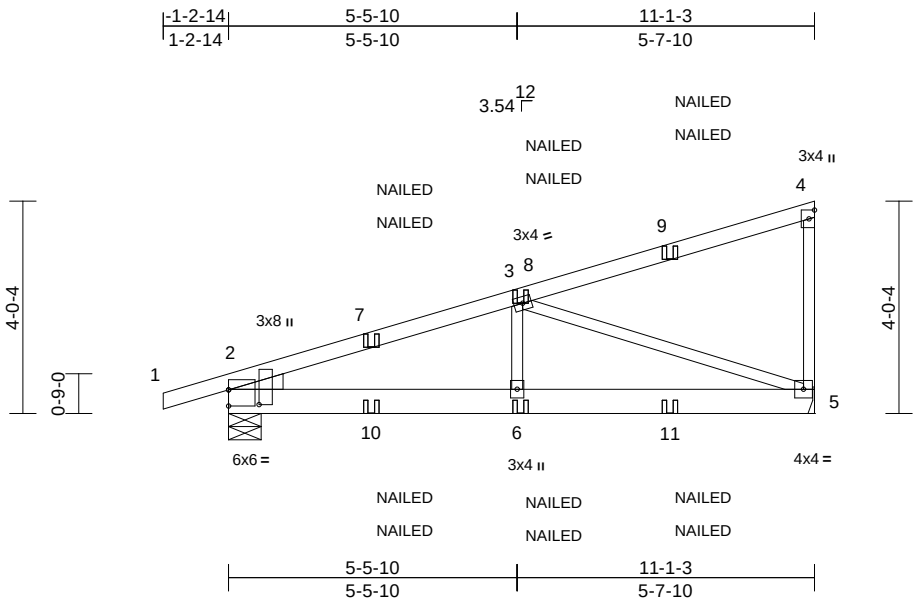


Scale = 1:43.7

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

| 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 | 0.74 | Vert(LL) | 0.03 | 6 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.68 | Vert(CT) | -0.05 | 5-6 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.91 | Horz(CT) | 0.01 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 49 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x6 SPF 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, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-10-6 oc bracing.

**REACTIONS** (size) 2=0-7-6, 5= Mechanical
Max Horiz 2=169 (LC 28)
Max Uplift 2=-229 (LC 8), 5=-233 (LC 12)
Max Grav 2=698 (LC 1), 5=702 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/0, 2-3=-1163/411, 3-4=-142/93, 4-5=-248/193
BOT CHORD 2-6=-546/1040, 5-6=-546/1040
WEBS 3-6=0/352, 3-5=-1073/512

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-2-14 to 5-10-0, Exterior(2R) 5-10-0 to 10-11-15 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) Bearings are assumed to be: Joint 2 SPF No.2 crushing capacity of 425 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 5.
6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 3=-53 (F=-26, B=-26), 6=-19 (F=-10, B=-10), 9=-198 (F=-99, B=-99), 11=-59 (F=-30, B=-30)

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

September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 |
|---|---|---|---|---|---|
| P250254-01 | D1 | Monopitch Supported Gable | 1 | 1 | Job Reference (optional) I68187645 |

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

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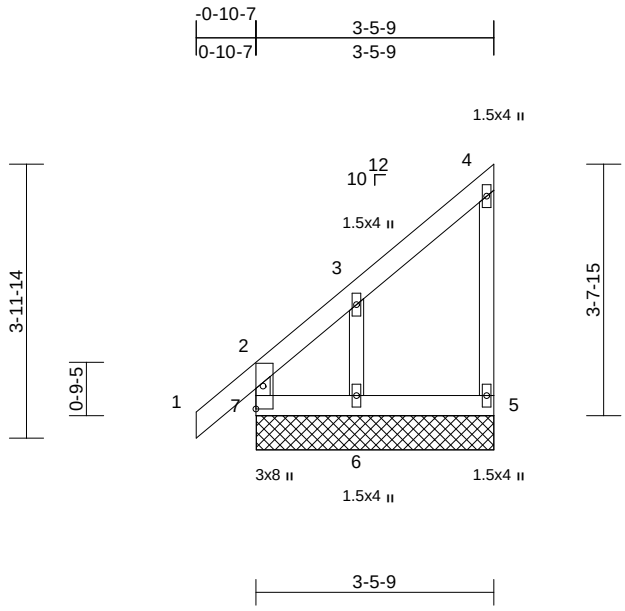


Scale = 1:33.6

| 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 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.14 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | Weight: 18 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 3-5-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 5=3-5-8, 6=3-5-8, 7=3-5-8
Max Horiz 7=152 (LC 9)
Max Uplift 5=-34 (LC 9), 6=-131 (LC 12), 7=-46 (LC 8)
Max Grav 5=88 (LC 19), 6=192 (LC 19), 7=170 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-156/166, 1-2=0/44, 2-3=-388/246, 3-4=-141/115, 4-5=-104/147
BOT CHORD 6-7=-65/86, 5-6=-65/86
WEBS 3-6=-239/371

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 7, 34 lb uplift at joint 5 and 131 lb uplift at joint 6.
8) Non Standard bearing condition. Review required.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 |
|---|---|---|---|---|---|
| P250254-01 | D2 | Monopitch | 10 | 1 | Job Reference (optional) I68187646 |

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:23:48 Page: 1
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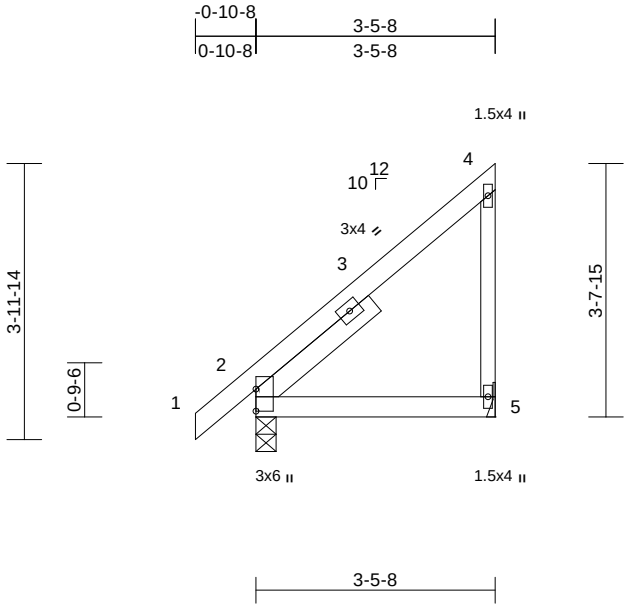


Scale = 1:33.3

| 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 | 0.39 | Vert(LL) | -0.01 | 2-5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.13 | Vert(CT) | -0.02 | 2-5 | >999 | 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: 20 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 -- 2-2-4

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-8, 5= Mechanical
Max Horiz 2=143 (LC 9)
Max Uplift 2=-23 (LC 12), 5=-67 (LC 9)
Max Grav 2=220 (LC 1), 5=173 (LC 19)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/19, 2-4=-222/168, 4-5=-208/254
BOT CHORD 2-5=-67/72

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 5.
6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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Chesterfield, MO 63017
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| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 |
|---|---|---|---|---|---|
| P250254-01 | D5 | Monopitch Supported Gable | 1 | 1 | Job Reference (optional) I68187647 |

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:23:48 Page: 1
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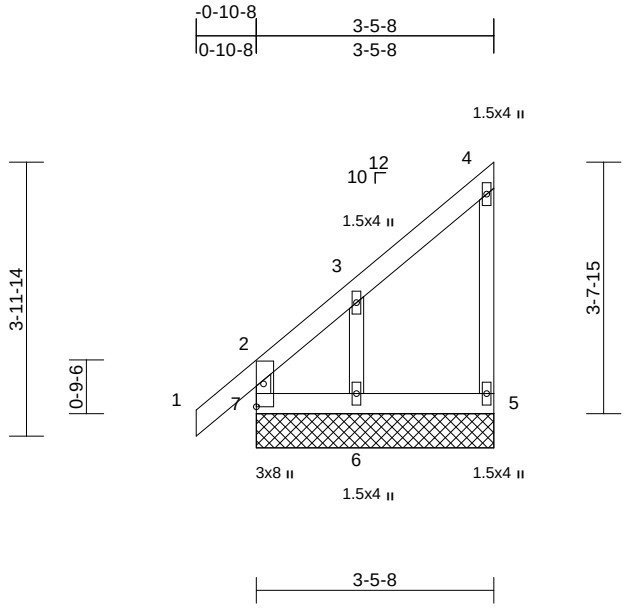


Scale = 1:33.6

| 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 | 0.31 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.15 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | Weight: 18 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 3-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 5=3-5-8, 6=3-5-8, 7=3-5-8
Max Horiz 7=152 (LC 9)
Max Uplift 5=-34 (LC 9), 6=-131 (LC 12), 7=-46 (LC 8)
Max Grav 5=88 (LC 19), 6=192 (LC 19), 7=170 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-157/167, 1-2=0/44, 2-3=-388/246, 3-4=-141/115, 4-5=-104/147
BOT CHORD 6-7=-65/86, 5-6=-65/86
WEBS 3-6=-239/371

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 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) 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 46 lb uplift at joint 7, 34 lb uplift at joint 5 and 131 lb uplift at joint 6.
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


September 13,2024



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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2025

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187648 |
|---|---|---|---|---|---|---|
| P250254-01 | E1 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

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

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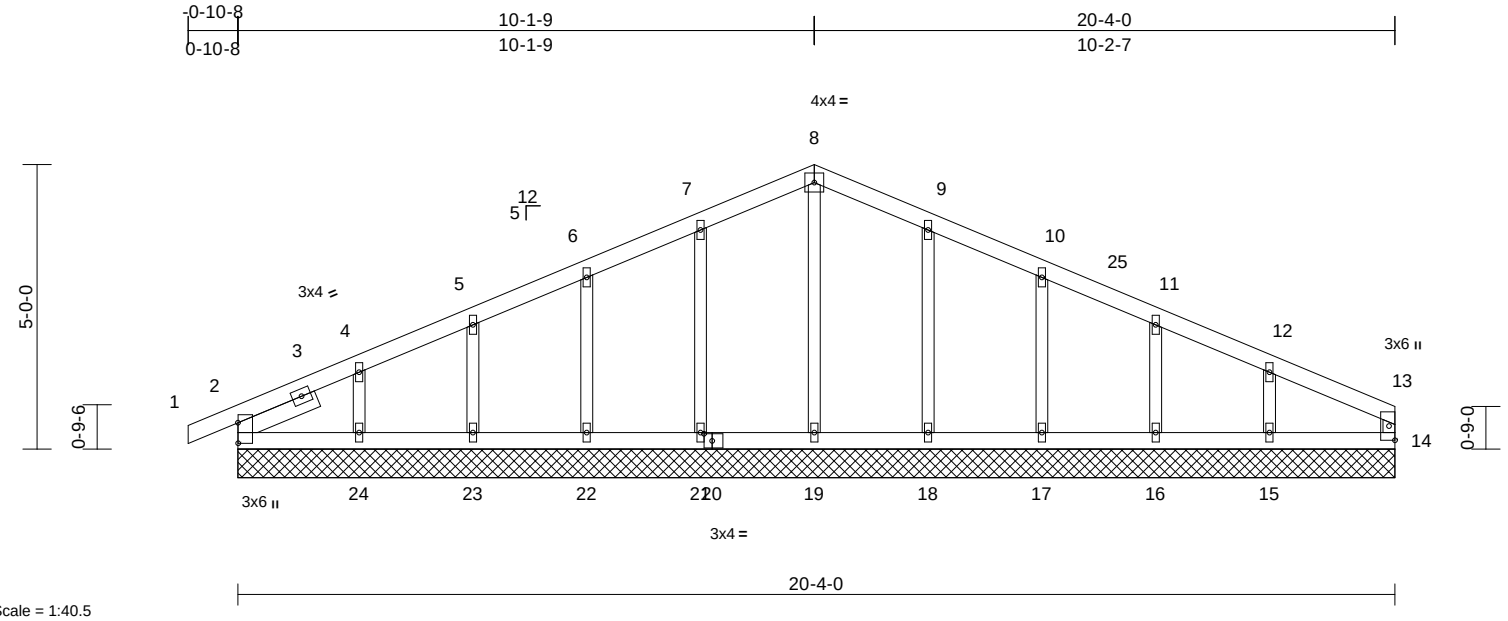


Scale = 1:40.5

Plate Offsets (X, Y): [2:0-4-5,0-0-1], [20:0-1-12,0-1-8]

| 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 | 0.06 | 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 | 0.06 | Horz(CT) | 0.00 | 14 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 86 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 -- 1-6-4

**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=20-4-0, 14=20-4-0, 15=20-4-0, 16=20-4-0, 17=20-4-0, 18=20-4-0, 19=20-4-0, 21=20-4-0, 22=20-4-0, 23=20-4-0, 24=20-4-0
Max Horiz 2=86 (LC 12)
Max Uplift 2=-35 (LC 13), 15=-78 (LC 13), 16=-48 (LC 13), 17=-57 (LC 13), 18=-55 (LC 13), 21=-57 (LC 12), 22=-56 (LC 12), 23=-51 (LC 12), 24=-82 (LC 12)
Max Grav 2=168 (LC 1), 14=90 (LC 1), 15=204 (LC 26), 16=174 (LC 1), 17=180 (LC 1), 18=190 (LC 26), 19=154 (LC 22), 21=190 (LC 25), 22=179 (LC 1), 23=180 (LC 1), 24=185 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-8/0, 2-4=-116/60, 4-5=-68/79, 5-6=-53/108, 6-7=-69/154, 7-8=-84/198, 8-9=-84/198, 9-10=-69/154, 10-11=-53/107, 11-12=-50/55, 12-13=-58/15, 13-14=-72/33
BOT CHORD 2-24=-14/46, 23-24=-14/46, 22-23=-14/46, 21-22=-14/46, 19-21=-14/46, 18-19=-14/46, 17-18=-14/46, 16-17=-14/46, 15-16=-14/46, 14-15=-14/46
WEBS 8-19=-114/0, 7-21=-150/92, 6-22=-138/94, 5-23=-142/113, 4-24=-140/159, 9-18=-150/92, 10-17=-140/98, 11-16=-136/125, 12-15=-158/167

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-9-10 to 4-2-7, Exterior(2N) 4-2-7 to 10-2-7, Corner(3R) 10-2-7 to 15-2-7, Exterior(2N) 15-2-7 to 20-3-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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 35 lb uplift at joint 2, 57 lb uplift at joint 21, 56 lb uplift at joint 22, 51 lb uplift at joint 23, 82 lb uplift at joint 24, 55 lb uplift at joint 18, 57 lb uplift at joint 17, 48 lb uplift at joint 16 and 78 lb uplift at joint 15.
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

September 13,2024

**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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187649 |
|---|---|---|---|---|---|---|
| P250254-01 | E2 | Common | 3 | 1 | Job Reference (optional) | |

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

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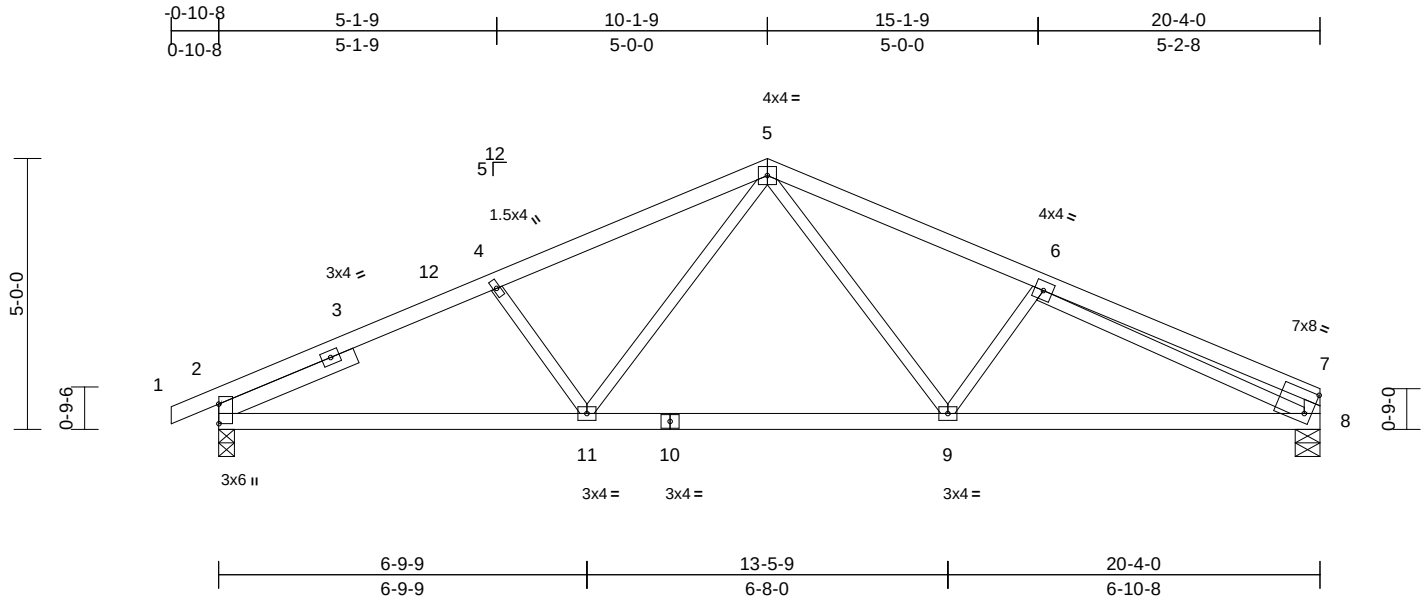


Scale = 1:42.5

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

| 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 | 0.47 | Vert(LL) | -0.07 | 9-11 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.50 | Vert(CT) | -0.14 | 9-11 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.90 | Horz(CT) | 0.04 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 87 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
SLIDER Left 2x4 SP No.2 -- 2-9-0

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

**REACTIONS** (size) 2=0-3-8, 8=0-5-8
Max Horiz 2=86 (LC 12)
Max Uplift 2=-163 (LC 12), 8=-140 (LC 13)
Max Grav 2=971 (LC 1), 8=907 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-8/0, 2-4=-1576/396, 4-5=-1383/382, 5-6=-1400/386, 6-7=-439/123, 7-8=-310/119
BOT CHORD 2-11=-329/1343, 9-11=-177/984, 8-9=-318/1367
WEBS 5-9=-94/452, 6-9=-285/196, 5-11=-91/435, 4-11=-264/191, 6-8=-1149/286

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-9-10 to 4-2-6, Interior (1) 4-2-6 to 10-2-7, Exterior(2R) 10-2-7 to 15-3-8, Interior (1) 15-3-8 to 20-3-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



MiTek®
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2025

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187650 |
|---|---|---|---|---|---|---|
| P250254-01 | F1 | Roof Special Girder | 1 | 2 | Job Reference (optional) | |

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

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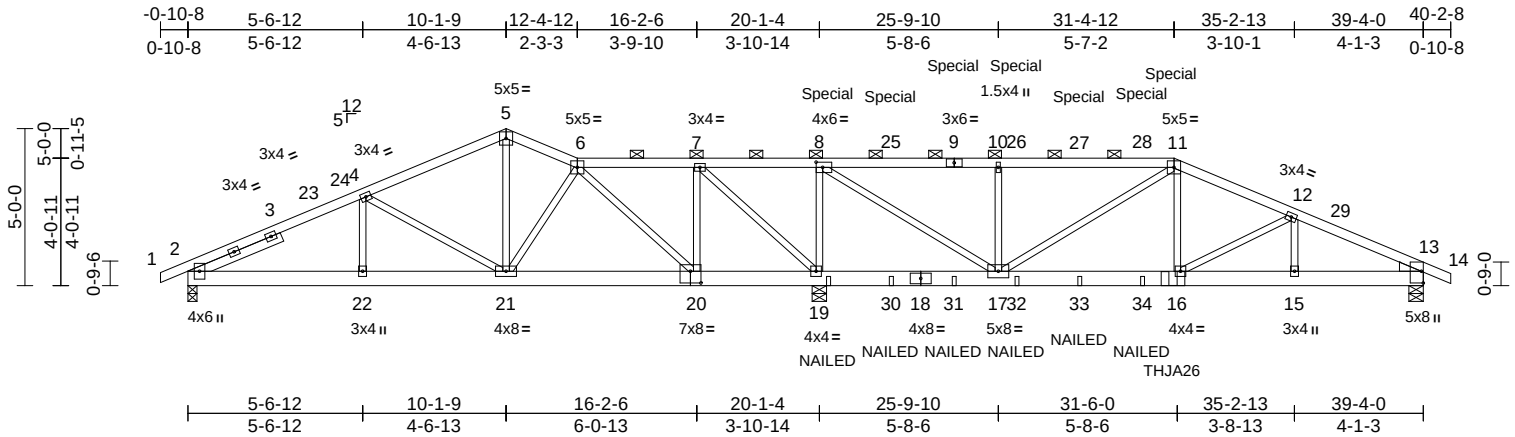


Scale = 1:73.4

Plate Offsets (X, Y): [2:0-3-1,0-2-7], [8:0-2-8,0-2-0], [13:Edge,0-0-11], [20:0-4-0,0-4-8]

| 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 | 0.65 | Vert(LL) | 0.06 | 16-17 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.55 | Vert(CT) | -0.10 | 16-17 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.60 | Horz(CT) | 0.02 | 13 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 374 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2
WEDGE Right: 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 3-2-4

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
2-0-0 oc purlins (6-0-0 max.): 6-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 19-20,17-19.

**REACTIONS** (size) 2=0-3-8, 13=0-5-8, 19=0-5-8
Max Horiz 2=-88 (LC 34)
Max Uplift 2=-192 (LC 33), 13=-505 (LC 13), 19=-1021 (LC 13)
Max Grav 2=692 (LC 1), 13=1657 (LC 26), 19=3836 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2/0, 2-4=-998/319, 4-5=-504/279, 5-6=-463/298, 6-7=-269/505, 7-8=-278/1344, 8-10=-1688/642, 10-11=-1689/642, 11-12=-2895/968, 12-13=-2984/930, 13-14=0/0
BOT CHORD 2-22=-280/821, 21-22=-280/821, 19-21=-505/392, 17-19=-1344/419, 16-17=-761/2607, 15-16=-765/2571, 13-15=-765/2571
WEBS 11-16=-124/931, 8-19=-2636/975, 7-19=-1255/202, 7-20=-84/643, 6-20=-921/230, 5-21=-111/245, 6-21=-91/424, 4-21=-509/191, 4-22=0/191, 12-16=-254/245, 12-15=0/81, 10-17=-1064/609, 8-17=-1066/3513, 11-17=-1141/352

**NOTES**
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 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) 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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-9-10 to 4-2-6, Interior (1) 4-2-6 to 10-2-7, Exterior(2E) 10-2-7 to 12-5-11, Interior (1) 12-5-11 to 31-5-10, Exterior(2R) 31-5-10 to 36-5-10, Interior (1) 36-5-10 to 40-3-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1021 lb uplift at joint 19.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
10) Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Right Hand Hip) or equivalent at 31-5-4 from the left end to connect truss(es) to front face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.
15) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.


September 13,2024

Continued on page 2



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| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187650 |
|---|---|---|---|---|---|---|
| P250254-01 | F1 | Roof Special Girder | 1 | 2 | Job Reference (optional) | |



16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 256 lb down and 161 lb up at 20-5-11, 252 lb down and 160 lb up at 22-5-11, 252 lb down and 160 lb up at 24-5-11, 252 lb down and 160 lb up at 26-5-11, 252 lb down and 160 lb up at 28-5-11, and 252 lb down and 160 lb up at 30-5-11, and 252 lb down and 160 lb up at 31-5-10 on top 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: 1-5=-70, 5-6=-70, 6-11=-70, 11-14=-70, 2-13=-20
   Concentrated Loads (lb)
   Vert: 9=-202 (F), 16=-732 (F), 8=-206 (F), 19=-59 (F), 11=-202 (F), 25=-202 (F), 26=-202 (F), 27=-202 (F), 28=-202 (F), 30=-59 (F), 31=-59 (F), 32=-59 (F), 33=-59 (F), 34=-59 (F)



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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2025

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187651 |
|---|---|---|---|---|---|---|
| P250254-01 | G1 | Monopitch Supported Gable | 1 | 1 | Job Reference (optional) | |

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:23:49 Page: 1
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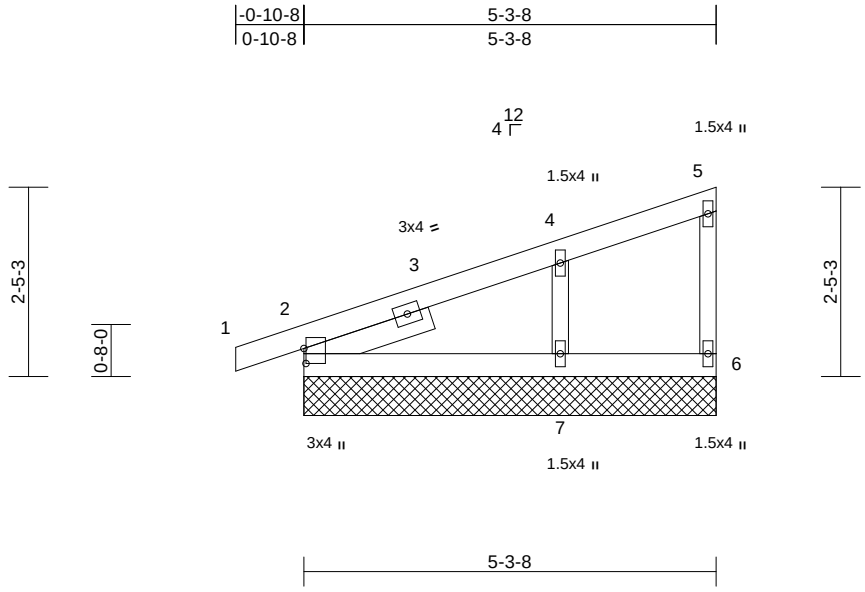


Scale = 1:29.6

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 | 0.22 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.10 | Horz(CT) | 0.00 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 23 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 -- 1-8-7 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 5-3-8 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS** (size) 2=5-3-8, 6=5-3-8, 7=5-3-8
Max Horiz 2=98 (LC 11)
Max Uplift 2=-56 (LC 8), 6=-9 (LC 9), 7=-85 (LC 12)
Max Grav 2=194 (LC 1), 6=45 (LC 1), 7=288 (LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-2=-5/0, 2-4=-196/104, 4-5=-54/53, 5-6=-37/59 |
| BOT CHORD | 2-7=-43/58, 6-7=-43/58 |
| WEBS | 4-7=-219/389 |

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-1-8, Exterior(2N) 4-1-8 to 5-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 6, 56 lb uplift at joint 2 and 85 lb uplift at joint 7.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


September 13,2024




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RELEASE FOR CONSTRUCTION
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LEE'S SUMMIT, MISSOURI
05/13/2025

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187652 |
|---|---|---|---|---|---|---|
| P250254-01 | G2 | Monopitch | 6 | 1 | Job Reference (optional) | |

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

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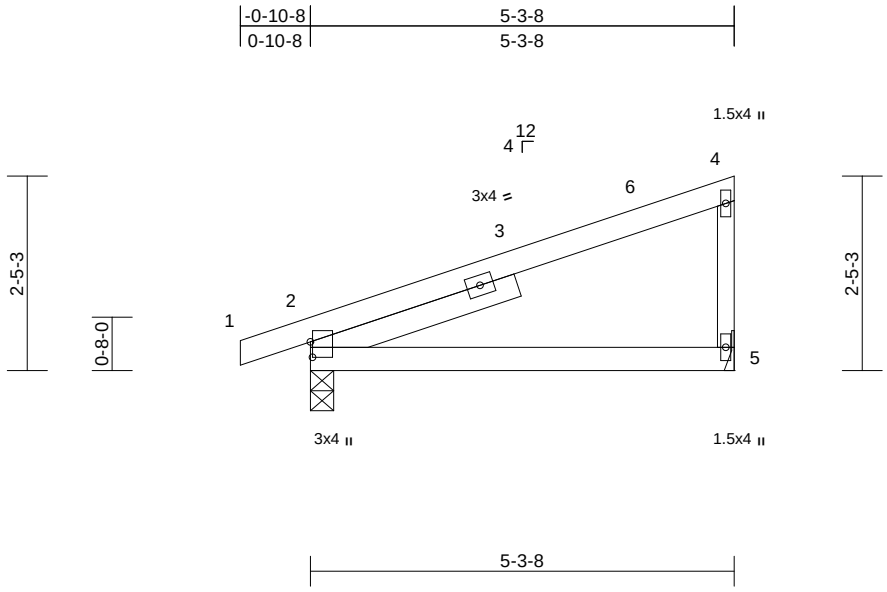


Scale = 1:28.8

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 | 0.67 | Vert(LL) | -0.04 | 2-5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.34 | Vert(CT) | -0.09 | 2-5 | >717 | 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: 23 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 -- 2-8-6

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 5-3-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-8, 5= Mechanical
Max Horiz 2=98 (LC 9)
Max Uplift 2=-86 (LC 8), 5=-59 (LC 12)
Max Grav 2=300 (LC 1), 5=228 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-133/78, 4-5=-176/267
BOT CHORD 2-5=-43/47

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 5.
6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024




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Chesterfield, MO 63017
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| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187653 |
|---|---|---|---|---|---|---|
| P250254-01 | G3 | Monopitch | 6 | 1 | Job Reference (optional) | |

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

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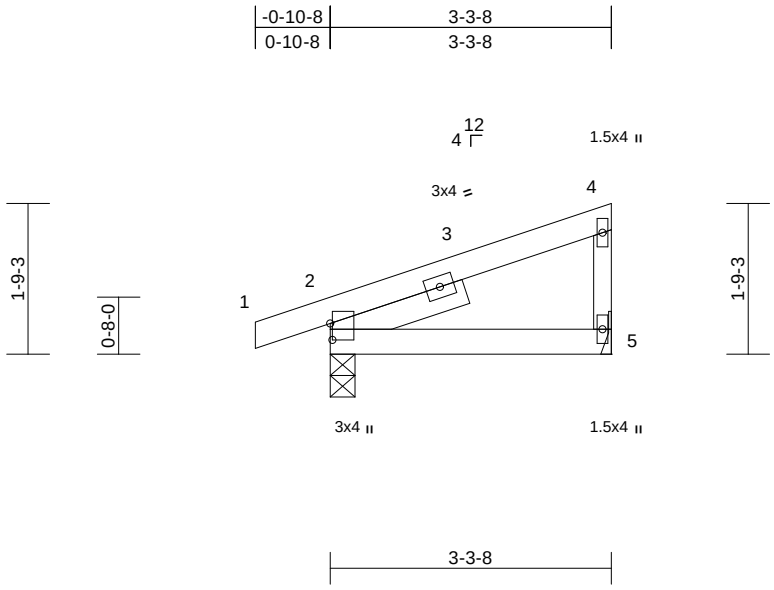


Scale = 1:27

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 | 0.23 | Vert(LL) | -0.01 | 2-5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.12 | Vert(CT) | -0.01 | 2-5 | >999 | 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: 15 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 -- 1-7-12

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

**REACTIONS** (size) 2=0-3-8, 5= Mechanical
Max Horiz 2=66 (LC 9)
Max Uplift 2=-71 (LC 8), 5=-35 (LC 12)
Max Grav 2=213 (LC 1), 5=135 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-85/52, 4-5=-103/166
BOT CHORD 2-5=-29/32

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 5.
6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187654 |
|---|---|---|---|---|---|---|
| P250254-01 | J1 | Jack-Open | 1 | 1 | Job Reference (optional) | |

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

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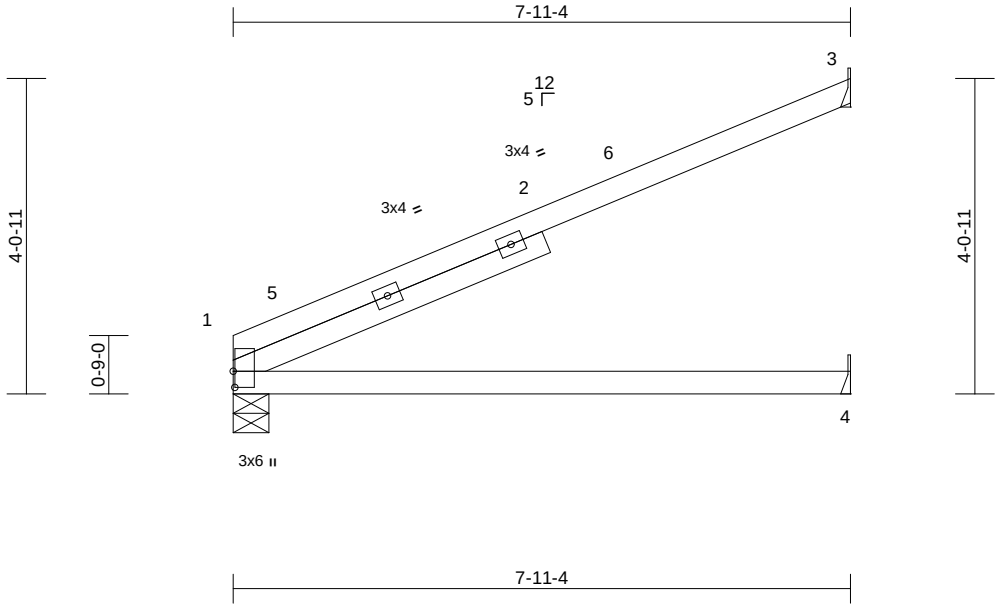


Scale = 1:29.6

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

| 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 | 0.71 | Vert(LL) | -0.23 | 1-4 | >410 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.83 | Vert(CT) | -0.46 | 1-4 | >205 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.04 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 31 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 4-4-4

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-2-10 oc bracing.

**REACTIONS** (size) 1=0-5-8, 3= Mechanical, 4= Mechanical
Max Horiz 1=163 (LC 12)
Max Uplift 1=-39 (LC 12), 3=-163 (LC 12)
Max Grav 1=354 (LC 1), 3=276 (LC 1), 4=158 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-143/84
BOT CHORD 1-4=0/0

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 5-0-0, Interior (1) 5-0-0 to 7-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 1 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 163 lb uplift at joint 3.
6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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LEE'S SUMMIT, MISSOURI
05/13/2025

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187655 |
|---|---|---|---|---|---|---|
| P250254-01 | J2 | Jack-Open | 6 | 1 | Job Reference (optional) | |

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

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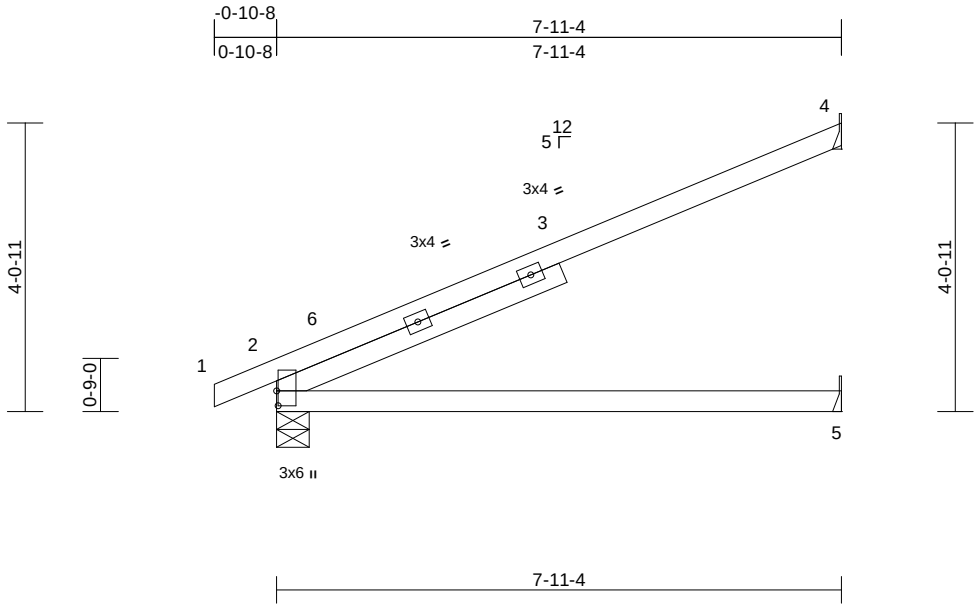


Scale = 1:32.4

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

| 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 | 1.00 | Vert(LL) | -0.23 | 2-5 | >410 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.83 | Vert(CT) | -0.46 | 2-5 | >205 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.06 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 33 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 4-4-4

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

**REACTIONS** (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=160 (LC 12)
Max Uplift 2=-62 (LC 12), 4=-162 (LC 12)
Max Grav 2=419 (LC 1), 4=272 (LC 1), 5=158 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6/0, 2-4=-142/83
BOT CHORD 2-5=0/0

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 7-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 162 lb uplift at joint 4.
6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
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

September 13,2024




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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187656 |
|---|---|---|---|---|---|---|
| P250254-01 | J3 | Jack-Open | 2 | 1 | Job Reference (optional) | |

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

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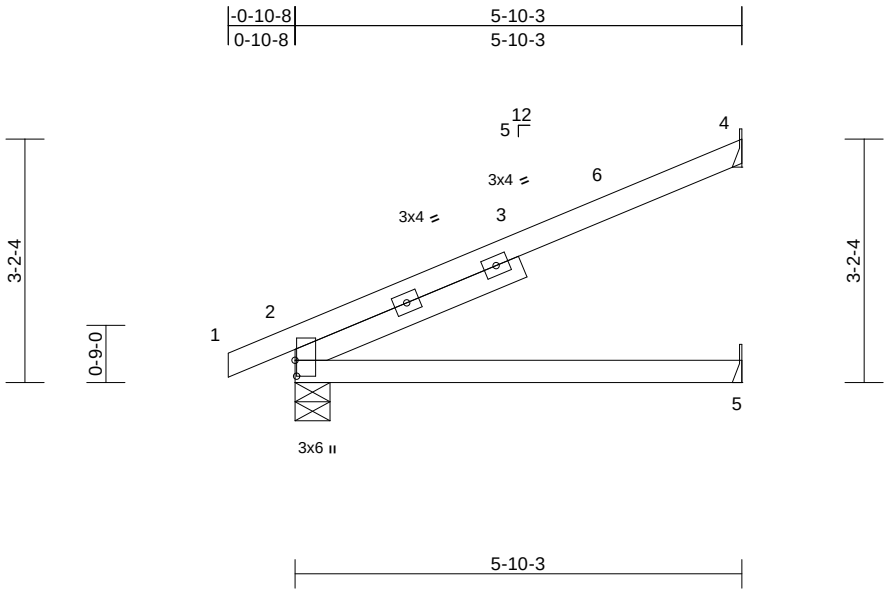


Scale = 1:30.2

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

| 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 | 0.76 | Vert(LL) | -0.07 | 2-5 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.43 | Vert(CT) | -0.13 | 2-5 | >516 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.02 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 24 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 3-2-11

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

**REACTIONS** (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=122 (LC 12)
Max Uplift 2=-50 (LC 12), 4=-121 (LC 12)
Max Grav 2=326 (LC 1), 4=198 (LC 1), 5=116 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6/0, 2-4=-116/60
BOT CHORD 2-5=0/0

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-9-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 4.
6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187657 |
|---|---|---|---|---|---|---|
| P250254-01 | J4 | Jack-Open | 2 | 1 | Job Reference (optional) | |

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

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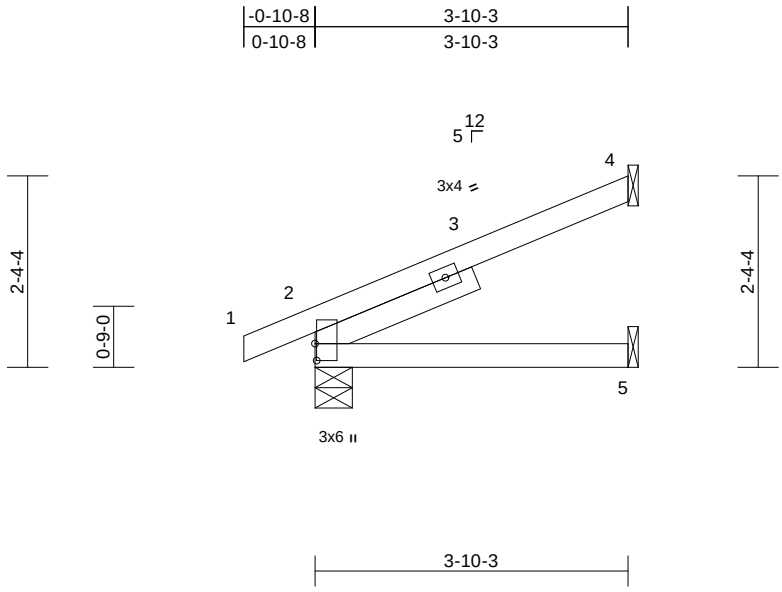


Scale = 1:28.3

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

| 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) | -0.01 | 2-5 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.17 | Vert(CT) | -0.02 | 2-5 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.01 | 4 | 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
SLIDER Left 2x4 SP No.2 -- 2-1-11

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

**REACTIONS** (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=85 (LC 12)
Max Uplift 2=-38 (LC 12), 4=-81 (LC 12)
Max Grav 2=239 (LC 1), 4=125 (LC 1), 5=76 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6/0, 2-4=-83/40
BOT CHORD 2-5=0/0

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 4.
6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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Chesterfield, MO 63017
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| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187658 |
|---|---|---|---|---|---|---|
| P250254-01 | J5 | Jack-Open | 2 | 1 | Job Reference (optional) | |

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

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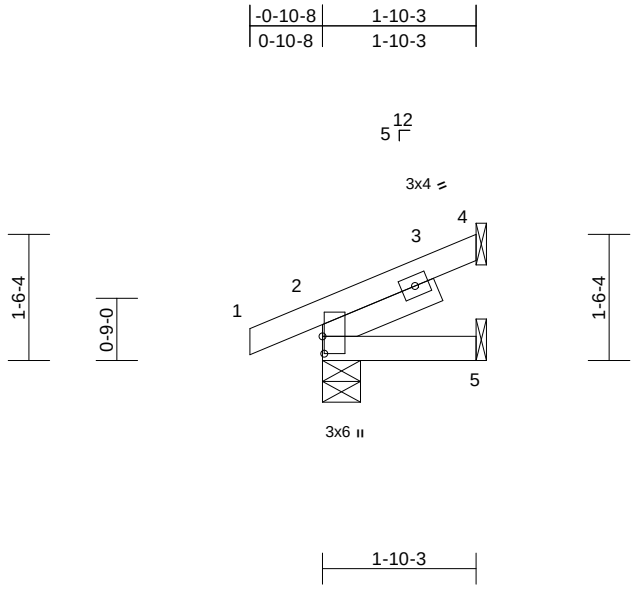


Scale = 1:27.7

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

| 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 | 0.06 | Vert(LL) | 0.00 | 2-5 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | 0.00 | 2-5 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 10 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-6-0

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

**REACTIONS** (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=50 (LC 12)
Max Uplift 2=-31 (LC 8), 4=-41 (LC 12)
Max Grav 2=158 (LC 1), 4=50 (LC 1), 5=37 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6/0, 2-4=-51/21
BOT CHORD 2-5=0/0

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 4.
6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
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


September 13,2024



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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2025

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187659 |
|---|---|---|---|---|---|---|
| P250254-01 | V1 | Valley | 1 | 1 | Job Reference (optional) | |

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

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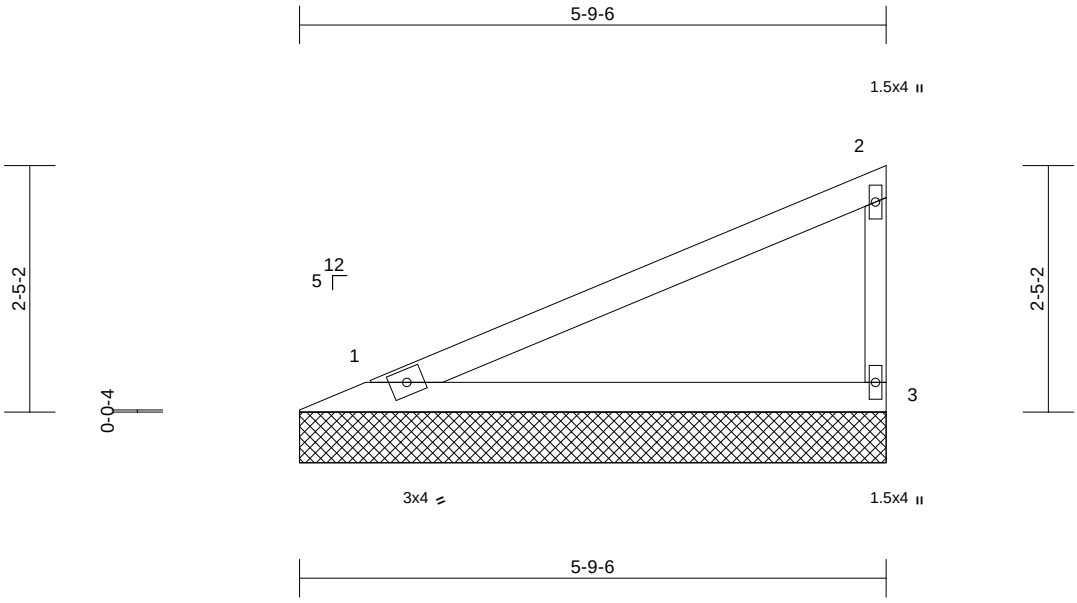


Scale = 1:22.7

| 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 | 0.57 | 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: 18 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 5-9-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=5-9-6, 3=5-9-6
Max Horiz 1=97 (LC 9)
Max Uplift 1=-39 (LC 12), 3=-59 (LC 12)
Max Grav 1=224 (LC 1), 3=224 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-125/85, 2-3=-174/200
BOT CHORD 1-3=-43/47

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 1 and 59 lb uplift at joint 3.
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


September 13,2024




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| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187660 |
|---|---|---|---|---|---|---|
| P250254-01 | V2 | Valley | 1 | 1 | Job Reference (optional) | |

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

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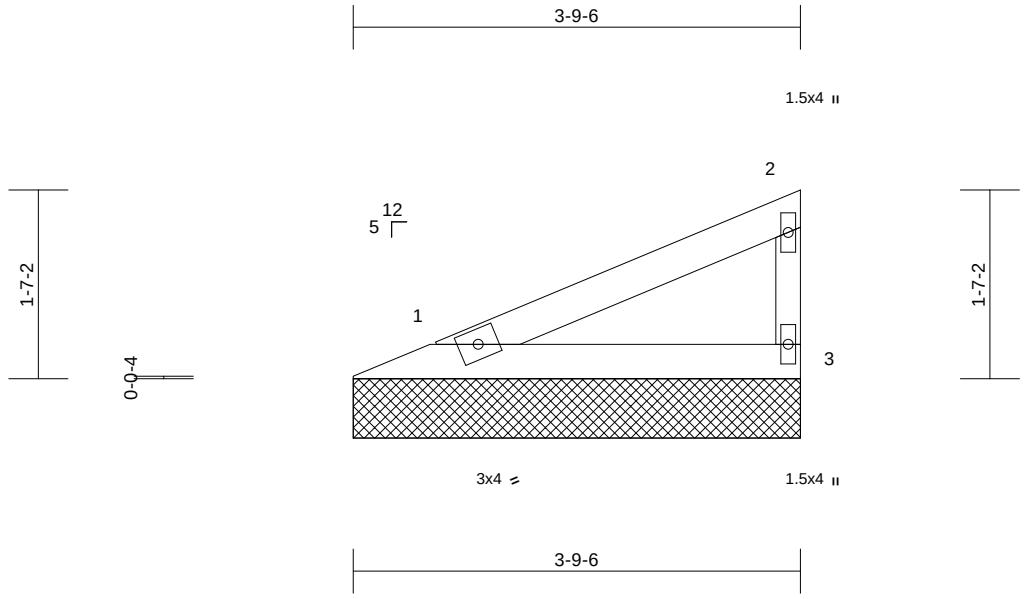


Scale = 1:19.5

| 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 | 0.19 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.10 | 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: 11 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 3-9-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=3-9-6, 3=3-9-6
Max Horiz 1=58 (LC 9)
Max Uplift 1=-23 (LC 12), 3=-35 (LC 12)
Max Grav 1=134 (LC 1), 3=134 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-76/52, 2-3=-104/123
BOT CHORD 1-3=-26/28

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 35 lb uplift at joint 3.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187661 |
|---|---|---|---|---|---|---|
| P250254-01 | V3 | Valley | 1 | 1 | Job Reference (optional) | |

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

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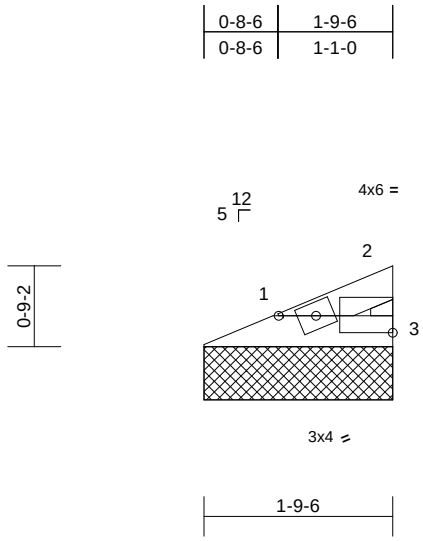


Scale = 1:21.7

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

| 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 1-9-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=1-9-6, 3=1-9-6
Max Horiz 1=19 (LC 9)
Max Uplift 1=-8 (LC 12), 3=-12 (LC 12)
Max Grav 1=44 (LC 1), 3=44 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-25/17, 2-3=-34/40
BOT CHORD 1-3=-9/9

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1 and 12 lb uplift at joint 3.
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


September 13,2024



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| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187662 |
|---|---|---|---|---|---|---|
| P250254-01 | V4 | Valley | 1 | 1 | Job Reference (optional) | |

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

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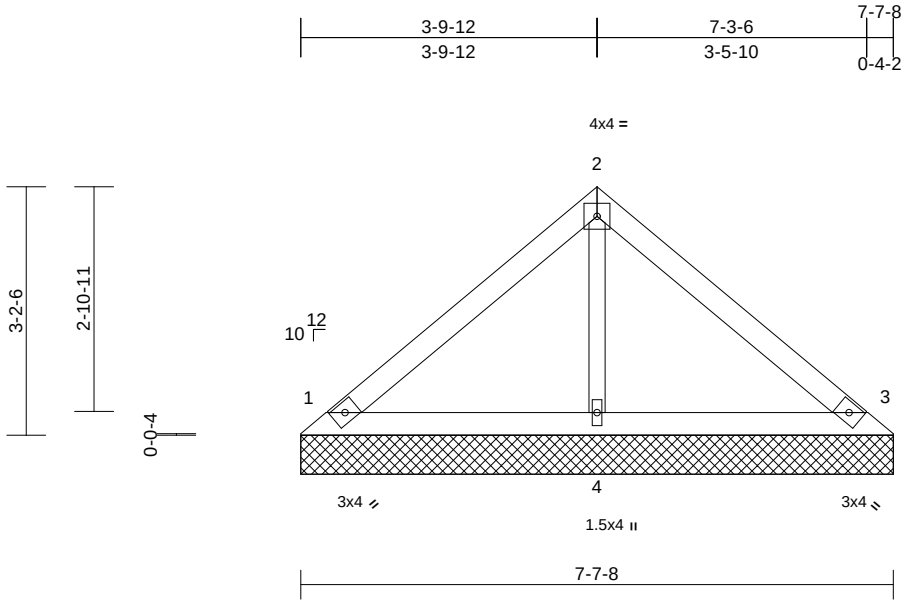


Scale = 1:29.6

| 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 | 0.28 | 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 | 0.04 | 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=7-7-8, 3=7-7-8, 4=7-7-8
Max Horiz 1=-80 (LC 8)
Max Uplift 1=-44 (LC 12), 3=-54 (LC 13)
Max Grav 1=186 (LC 1), 3=186 (LC 1), 4=246 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-132/76, 2-3=-125/83
BOT CHORD 1-4=-19/63, 3-4=-19/63
WEBS 2-4=-160/87

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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 44 lb uplift at joint 1 and 54 lb uplift at joint 3.
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

September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187663 |
|---|---|---|---|---|---|---|
| P250254-01 | V5 | Valley | 1 | 1 | Job Reference (optional) | |

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

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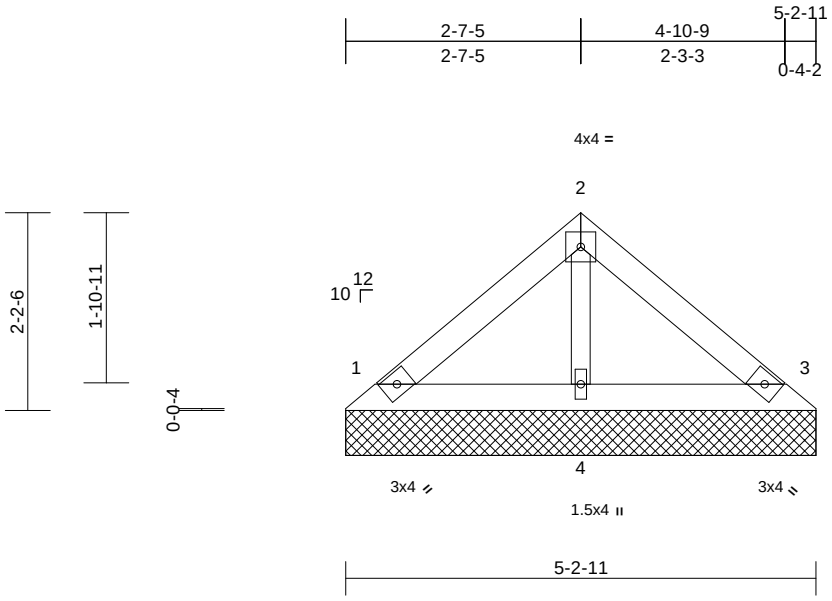


Scale = 1:25.6

| 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 | 0.13 | 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: 18 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 5-3-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=5-2-11, 3=5-2-11, 4=5-2-11
Max Horiz 1=-52 (LC 8)
Max Uplift 1=-29 (LC 12), 3=-35 (LC 13)
Max Grav 1=121 (LC 1), 3=121 (LC 1), 4=160 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-86/57, 2-3=-81/62
BOT CHORD 1-4=-12/41, 3-4=-12/41
WEBS 2-4=-104/67

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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 29 lb uplift at joint 1 and 35 lb uplift at joint 3.
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

September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187664 |
|---|---|---|---|---|---|---|
| P250254-01 | V6 | Valley | 1 | 1 | Job Reference (optional) | |

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:23:50 Page: 1
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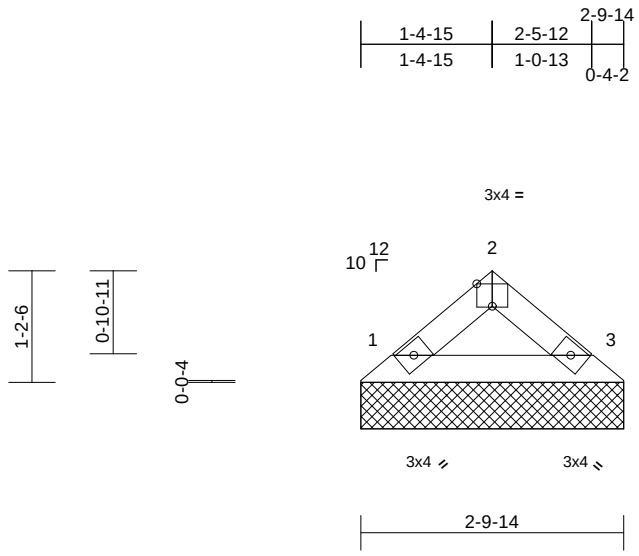



Scale = 1:24.7

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 | 0.03 | 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 | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 8 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 2-10-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=2-9-14, 3=2-9-14
Max Horiz 1=24 (LC 11)
Max Uplift 1=-12 (LC 12), 3=-12 (LC 13)
Max Grav 1=93 (LC 1), 3=93 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-75/56, 2-3=-75/60
BOT CHORD 1-3=-11/45

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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 12 lb uplift at joint 1 and 12 lb uplift at joint 3.
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

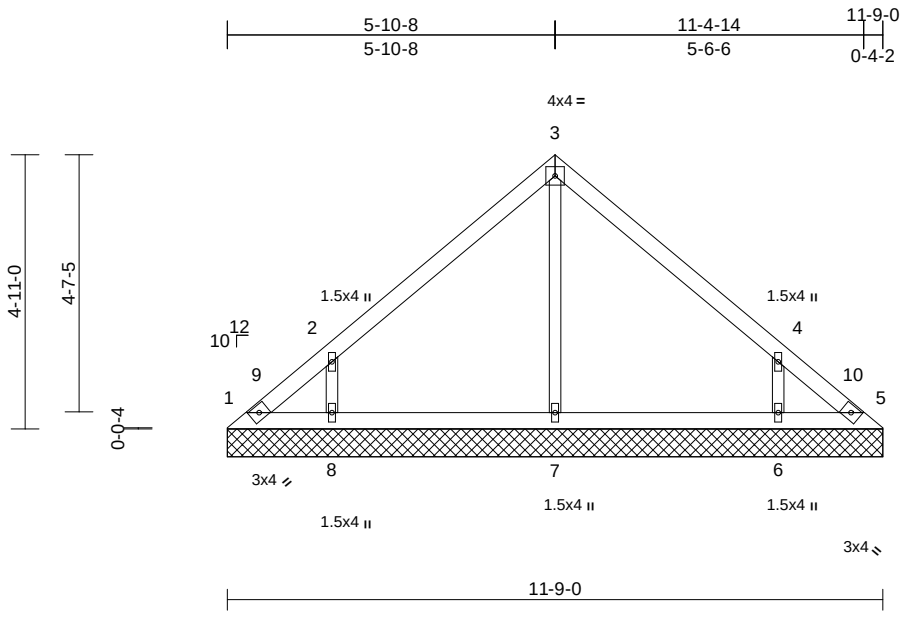

September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187665 |
|---|---|---|---|---|---|---|
| P250254-01 | V7 | Valley | 1 | 1 | Job Reference (optional) | |



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| 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 | 0.09 | Horiz(TL) | 0.00 | 5 | 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
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=11-9-0, 5=11-9-0, 6=11-9-0, 7=11-9-0, 8=11-9-0
Max Horiz 1=128 (LC 9)
Max Uplift 1=-59 (LC 10), 5=-37 (LC 11), 6=-195 (LC 13), 8=-195 (LC 12)
Max Grav 1=95 (LC 12), 5=80 (LC 13), 6=359 (LC 20), 7=257 (LC 1), 8=359 (LC 19)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-143/109, 2-3=-172/125, 3-4=-167/118, 4-5=-120/74
BOT CHORD 1-8=-37/91, 7-8=-37/91, 6-7=-37/91, 5-6=-37/91
WEBS 3-7=-171/17, 2-8=-299/292, 4-6=-299/292

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-13 to 5-4-13, Interior (1) 5-4-13 to 5-10-13, Exterior(2R) 5-10-13 to 10-10-13, Interior (1) 10-10-13 to 11-4-12 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) 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) 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 59 lb uplift at joint 1, 37 lb uplift at joint 5, 195 lb uplift at joint 8 and 195 lb uplift at joint 6.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187666 |
|---|---|---|---|---|---|---|
| P250254-01 | V8 | Valley | 1 | 1 | Job Reference (optional) | |

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

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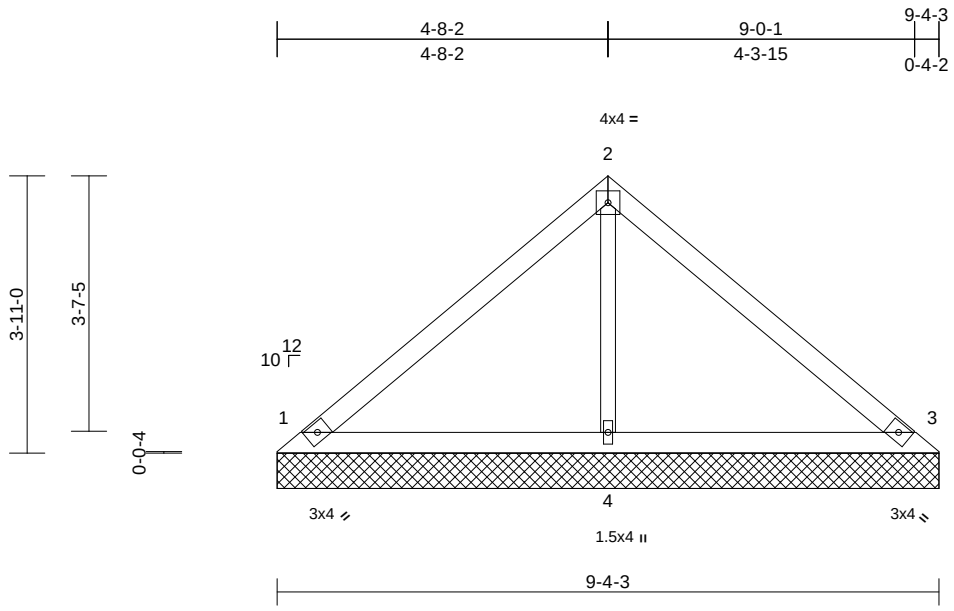


Scale = 1:32.6

| 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 | 0.19 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.07 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 33 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=9-4-3, 3=9-4-3, 4=9-4-3
Max Horiz 1=-100 (LC 8)
Max Uplift 1=-42 (LC 12), 3=-54 (LC 13), 4=-16 (LC 12)
Max Grav 1=216 (LC 1), 3=216 (LC 1), 4=342 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-180/90, 2-3=-177/99
BOT CHORD 1-4=-23/85, 3-4=-23/85
WEBS 2-4=-210/104

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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 42 lb uplift at joint 1, 54 lb uplift at joint 3 and 16 lb uplift at joint 4.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187667 |
|---|---|---|---|---|---|---|
| P250254-01 | V9 | Valley | 1 | 1 | Job Reference (optional) | |

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

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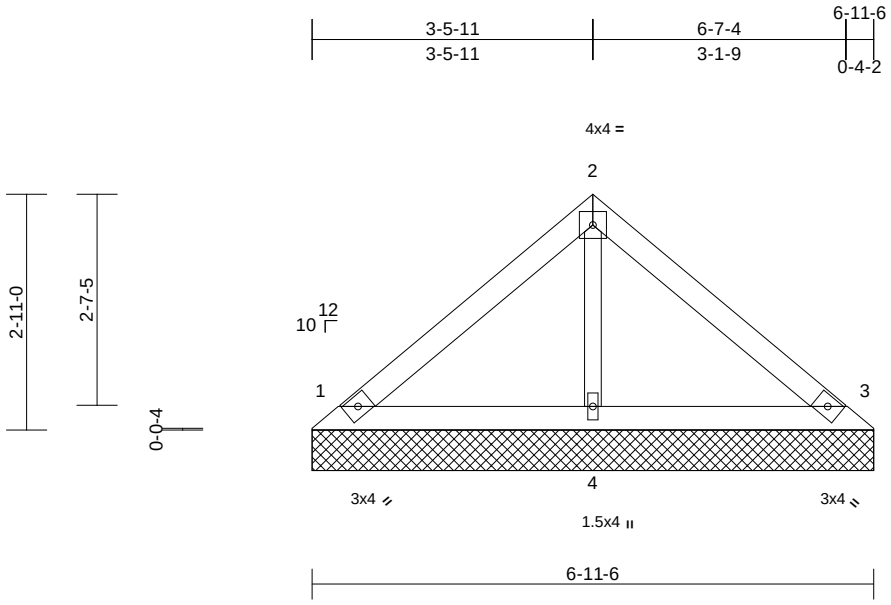


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| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.23 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 24 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=6-11-6, 3=6-11-6, 4=6-11-6
Max Horiz 1=72 (LC 9)
Max Uplift 1=-40 (LC 12), 3=-48 (LC 13)
Max Grav 1=168 (LC 1), 3=168 (LC 1), 4=221 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-119/72, 2-3=-112/78
BOT CHORD 1-4=-17/57, 3-4=-17/57
WEBS 2-4=-144/83

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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 40 lb uplift at joint 1 and 48 lb uplift at joint 3.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187668 |
|---|---|---|---|---|---|---|
| P250254-01 | V10 | Valley | 1 | 1 | Job Reference (optional) | |

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

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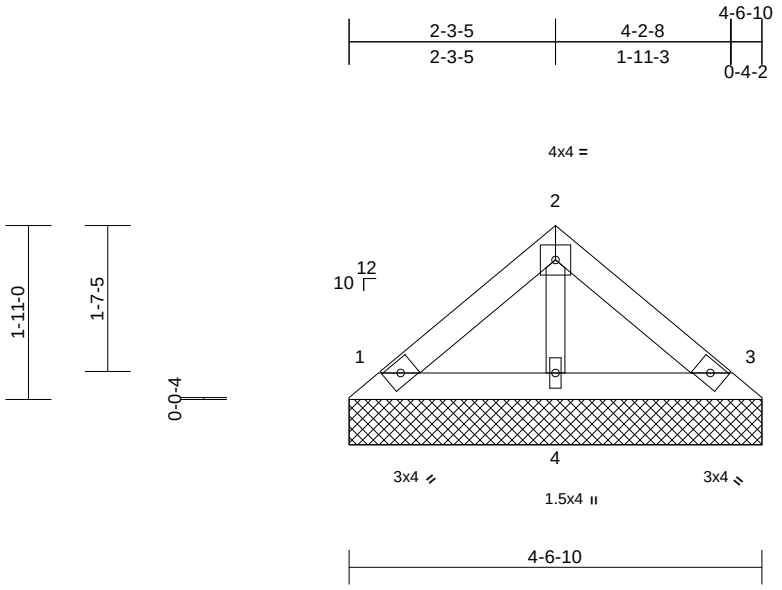


Scale = 1:25.4

| 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 | 0.09 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | 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: 15 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 4-7-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=4-6-10, 3=4-6-10, 4=4-6-10
Max Horiz 1=-44 (LC 8)
Max Uplift 1=-24 (LC 12), 3=-30 (LC 13)
Max Grav 1=103 (LC 1), 3=103 (LC 1), 4=136 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-73/49, 2-3=-69/54
BOT CHORD 1-4=-10/35, 3-4=-10/35
WEBS 2-4=-88/59

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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 24 lb uplift at joint 1 and 30 lb uplift at joint 3.
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


September 13,2024



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

| Job | Truss | Truss Type | Qty | Ply | Roof - BF Lot 440 | I68187669 |
|---|---|---|---|---|---|---|
| P250254-01 | V11 | Valley | 1 | 1 | Job Reference (optional) | |

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

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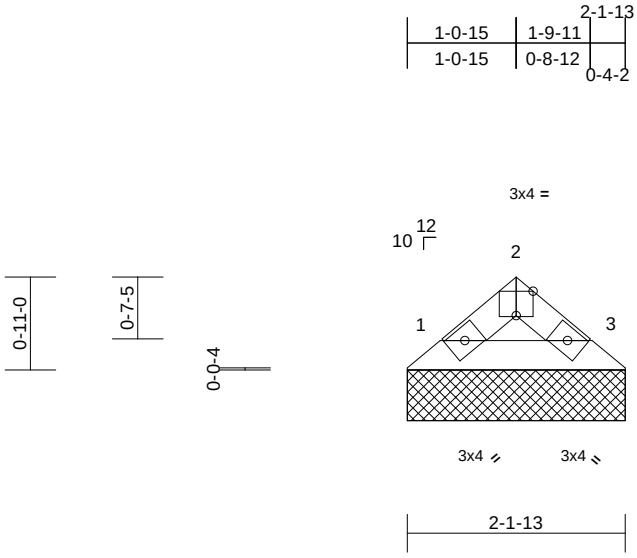


Scale = 1:22.7

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 | 0.02 | 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 2-2-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=2-1-13, 3=2-1-13
Max Horiz 1=16 (LC 11)
Max Uplift 1=-8 (LC 12), 3=-8 (LC 13)
Max Grav 1=63 (LC 1), 3=63 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-51/40, 2-3=-51/42
BOT CHORD 1-3=-7/30

**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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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 8 lb uplift at joint 1 and 8 lb uplift at joint 3.
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


September 13,2024



MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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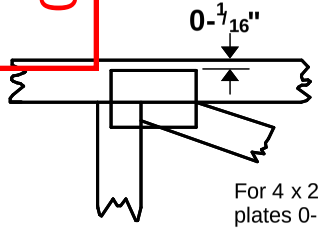
# Symbols

## PLATE LOCATION AND ORIENTATION


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




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

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

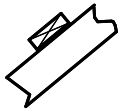
* Plate location details available in MiTek software or upon request.

## PLATE SIZE

4 x 4

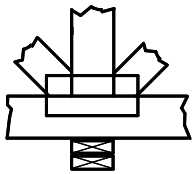
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

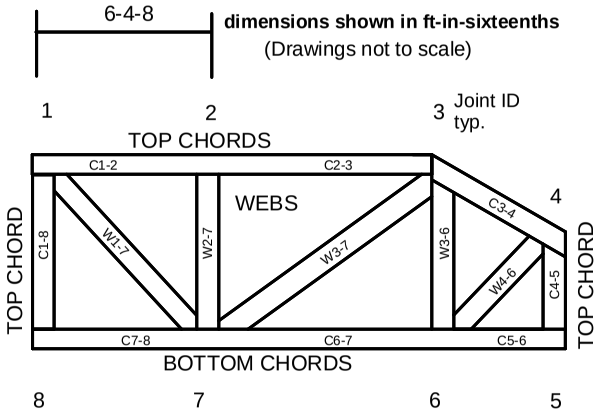


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

**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.