MiTek®

RE: 3664536
Summit/185 Highland Meadows

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

**Site Information:**

Customer: Project Name: 3664536
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 75 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal# | Truss Name | Date | No. | Seal# | Truss Name | Date |
|---|---|---|---|---|---|---|---|
| 1 | I58837488 | A1 | 6/12/2023 | 21 | I58837508 | CJ8 | 6/12/2023 |
| 2 | I58837489 | A2 | 6/12/2023 | 22 | I58837509 | CJ9 | 6/12/2023 |
| 3 | I58837490 | A3 | 6/12/2023 | 23 | I58837510 | CJ10 | 6/12/2023 |
| 4 | I58837491 | A4 | 6/12/2023 | 24 | I58837511 | D1 | 6/12/2023 |
| 5 | I58837492 | A5 | 6/12/2023 | 25 | I58837512 | D2 | 6/12/2023 |
| 6 | I58837493 | A6 | 6/12/2023 | 26 | I58837513 | E1 | 6/12/2023 |
| 7 | I58837494 | A7 | 6/12/2023 | 27 | I58837514 | E2 | 6/12/2023 |
| 8 | I58837495 | A8 | 6/12/2023 | 28 | I58837515 | E3 | 6/12/2023 |
| 9 | I58837496 | A9 | 6/12/2023 | 29 | I58837516 | E4 | 6/12/2023 |
| 10 | I58837497 | B1 | 6/12/2023 | 30 | I58837517 | F1 | 6/12/2023 |
| 11 | I58837498 | B1A | 6/12/2023 | 31 | I58837518 | F2 | 6/12/2023 |
| 12 | I58837499 | B2 | 6/12/2023 | 32 | I58837519 | F3 | 6/12/2023 |
| 13 | I58837500 | B3 | 6/12/2023 | 33 | I58837520 | F4 | 6/12/2023 |
| 14 | I58837501 | CJ1 | 6/12/2023 | 34 | I58837521 | J1 | 6/12/2023 |
| 15 | I58837502 | CJ2 | 6/12/2023 | 35 | I58837522 | J2 | 6/12/2023 |
| 16 | I58837503 | CJ3 | 6/12/2023 | 36 | I58837523 | J3 | 6/12/2023 |
| 17 | I58837504 | CJ4 | 6/12/2023 | 37 | I58837524 | J4 | 6/12/2023 |
| 18 | I58837505 | CJ5 | 6/12/2023 | 38 | I58837525 | J5 | 6/12/2023 |
| 19 | I58837506 | CJ6 | 6/12/2023 | 39 | I58837526 | J6 | 6/12/2023 |
| 20 | I58837507 | CJ7 | 6/12/2023 | 40 | I58837527 | J7 | 6/12/2023 |

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

Truss Design Engineer's Name: Sevier, Scott

My license renewal date for the state of Missouri is December 31, 2023.

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.

June 12, 2023

Sevier, Scott

MiTek®

RE: 3664536 - Summit/185 Highland Meadows

MiTek, Inc.
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Chesterfield, MO 63017
314.434.1200

**Site Information:**

Project Customer: Project Name: 3664536
Lot/Block: Subdivision:
Address:
City, County: State:

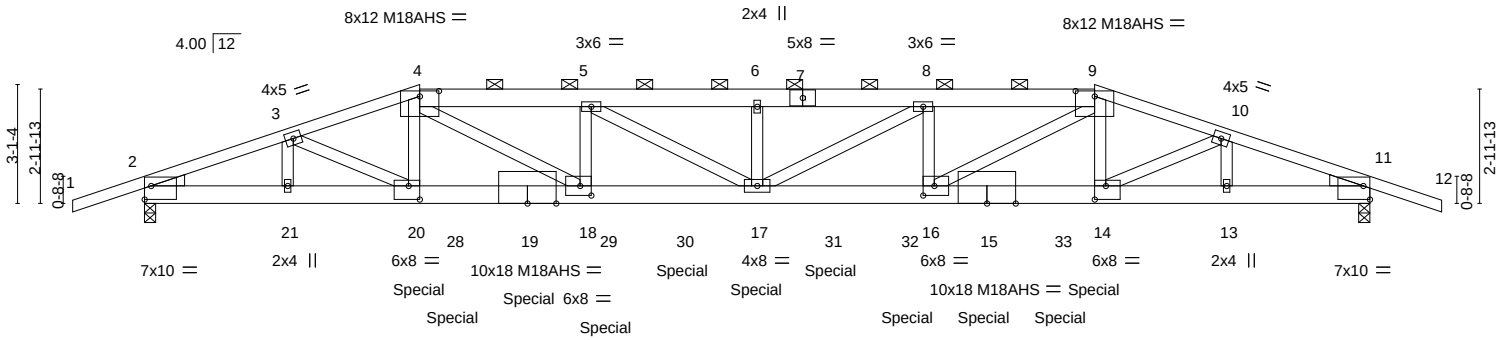
| No. | Seal# | Truss Name | Date |
|---|---|---|---|
| 41 | I58837528 | J8 | 6/12/2023 |
| 42 | I58837529 | J9 | 6/12/2023 |
| 43 | I58837530 | J10 | 6/12/2023 |
| 44 | I58837531 | J11 | 6/12/2023 |
| 45 | I58837532 | J12 | 6/12/2023 |
| 46 | I58837533 | J13 | 6/12/2023 |
| 47 | I58837534 | J14 | 6/12/2023 |
| 48 | I58837535 | J15 | 6/12/2023 |
| 49 | I58837536 | J16 | 6/12/2023 |
| 50 | I58837537 | J17 | 6/12/2023 |
| 51 | I58837538 | J18 | 6/12/2023 |
| 52 | I58837539 | J19 | 6/12/2023 |
| 53 | I58837540 | J20 | 6/12/2023 |
| 54 | I58837541 | J21 | 6/12/2023 |
| 55 | I58837542 | J22 | 6/12/2023 |
| 56 | I58837543 | J23 | 6/12/2023 |
| 57 | I58837544 | J24 | 6/12/2023 |
| 58 | I58837545 | J25 | 6/12/2023 |
| 59 | I58837546 | J26 | 6/12/2023 |
| 60 | I58837547 | J27 | 6/12/2023 |
| 61 | I58837548 | J28 | 6/12/2023 |
| 62 | I58837549 | J29 | 6/12/2023 |
| 63 | I58837550 | L1 | 6/12/2023 |
| 64 | I58837551 | LG1 | 6/12/2023 |
| 65 | I58837552 | LG2 | 6/12/2023 |
| 66 | I58837553 | LG3 | 6/12/2023 |
| 67 | I58837554 | P1 | 6/12/2023 |
| 68 | I58837555 | P2 | 6/12/2023 |
| 69 | I58837556 | P3 | 6/12/2023 |
| 70 | I58837557 | P4 | 6/12/2023 |
| 71 | I58837558 | P5 | 6/12/2023 |
| 72 | I58837559 | P6 | 6/12/2023 |
| 73 | I58837560 | V1 | 6/12/2023 |
| 74 | I58837561 | V2 | 6/12/2023 |
| 75 | I58837562 | V3 | 6/12/2023 |

| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | A1 | Hip Girder | 1 | 1 | I58837488 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:37 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| -1-10-8 | 3-8-14 | 7-2-4 | 11-6-4 | 16-0-0 | 20-5-12 | 24-9-12 | 28-3-2 | 32-0-0 | 33-10-8 |
|---|---|---|---|---|---|---|---|---|---|
| 1-10-8 | 3-8-14 | 3-5-6 | 4-4-0 | 4-5-12 | 4-5-12 | 4-4-0 | 3-5-6 | 3-8-14 | 1-10-8 |

Scale = 1:60.2




| 3-8-14 | 7-2-4 | 11-6-4 | 16-0-0 | 20-5-12 | 24-9-12 | 28-3-2 | 32-0-0 |
|---|---|---|---|---|---|---|---|
| 3-8-14 | 3-5-6 | 4-4-0 | 4-5-12 | 4-5-12 | 4-4-0 | 3-5-6 | 3-8-14 |

Plate Offsets (X,Y)-- [2:Edge,0-4-4], [4:0-6-0,0-1-11], [9:0-6-0,0-1-11], [11:Edge,0-4-4], [14:0-3-8,0-4-4], [16:0-3-8,0-3-0], [18:0-3-8,0-3-0], [20:0-3-8,0-4-4]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.83 | Vert(LL) | -0.59 | 17 | >654 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.96 | Vert(CT) | -1.05 | 17 | >365 | 180 | M18AHS | 142/136 |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.86 | Horz(CT) | 0.17 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MS | | | | | | | Weight: 174 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP 2400F 2.0E *Except* 4-7,7-9: 2x6 SPF 2100F 1.8E |
| BOT CHORD | 2x6 SP 2400F 2.0E *Except* 15-19: 2x6 SPF 2100F 1.8E |
| WEBS | 2x4 SPF No.2 |
| WEDGE | Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-0-13 oc purlins, except 2-0-0 oc purlins (2-4-1 max.): 4-9. |
| BOT CHORD | Rigid ceiling directly applied or 6-3-10 oc bracing. |

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8
Max Horz 2=45(LC 25)
Max Uplift 2=-790(LC 4), 11=-790(LC 5)
Max Grav 2=3398(LC 1), 11=3398(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-3=-7148/1577, 3-4=-8415/1909, 4-5=-10926/2522, 5-6=-11885/2732, 6-8=-11885/2732, 8-9=-10926/2522, 9-10=-8415/1910, 10-11=-7148/1578 |
| BOT CHORD | 2-21=-1466/6701, 20-21=-1466/6701, 18-20=-1762/7978, 17-18=-2452/10919, 16-17=-2421/10919, 14-16=-1717/7978, 13-14=-1422/6702, 11-13=-1422/6702 |
| WEBS | 3-21=-902/250, 3-20=-362/1573, 4-20=-122/682, 4-18=-847/3525, 5-18=-1162/314, 5-17=-325/1180, 6-17=-343/115, 8-17=-326/1179, 8-16=-1162/314, 9-16=-847/3524, 9-14=-122/682, 10-14=-363/1573, 10-13=-902/250 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 790 lb uplift at joint 2 and 790 lb uplift at joint 11.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 547 lb down and 132 lb up at 7-2-4, 284 lb down and 91 lb up at 8-0-12, 284 lb down and 91 lb up at 10-0-12, 284 lb down and 91 lb up at 12-0-12, 284 lb down and 91 lb up at 14-0-12, 284 lb down and 91 lb up at 16-0-0, 284 lb down and 91 lb up at 17-11-4, 284 lb down and 91 lb up at 19-11-4, 284 lb down and 91 lb up at 21-11-4, and 284 lb down and 91 lb up at 23-11-4, and 547 lb down and 132 lb up at 24-9-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2


June 12,2023



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**LOAD CASE(S)** Standard

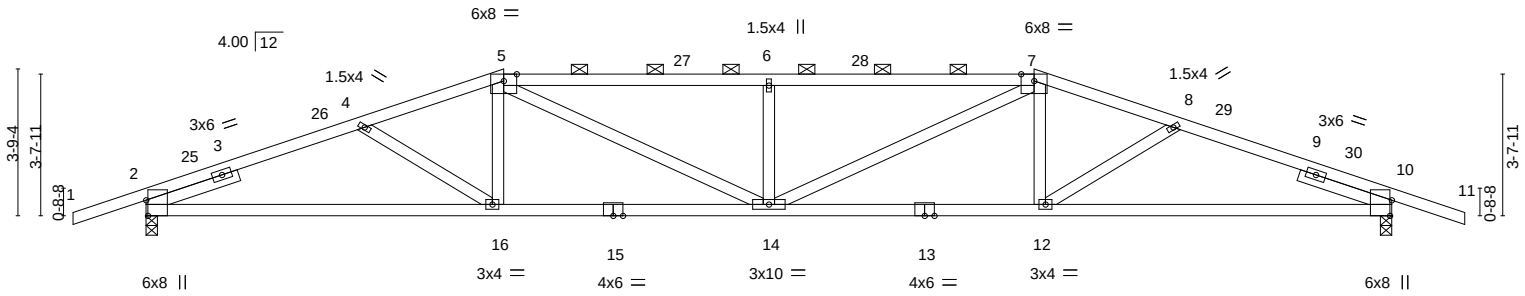
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-70, 4-9=-70, 9-12=-70, 22-25=-20
   Concentrated Loads (lb)
   Vert: 19=-284(B) 20=-547(B) 17=-284(B) 14=-547(B) 15=-284(B) 28=-284(B) 29=-284(B) 30=-284(B) 31=-284(B) 32=-284(B) 33=-284(B)

| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | A2 | Hip | 1 | 1 | I58837489 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:38 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| -1-10-8 | 5-7-6 | 9-2-4 | 16-0-0 | 22-9-12 | 26-4-10 | 32-0-0 | 33-10-8 |
|---|---|---|---|---|---|---|---|
| 1-10-8 | 5-7-6 | 3-6-15 | 6-9-12 | 6-9-12 | 3-6-15 | 5-7-6 | 1-10-8 |

Scale = 1:59.2




| 9-2-4 | 16-0-0 | 22-9-12 | 32-0-0 |
|---|---|---|---|
| 9-2-4 | 6-9-12 | 6-9-12 | 9-2-4 |

Plate Offsets (X,Y)-- [2:0-4-13,Edge], [10:0-4-13,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.76 | Vert(LL) | -0.31 | 14 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.97 | Vert(CT) | -0.56 | 12-14 | >692 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.23 | Horz(CT) | 0.14 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 121 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except* 5-7: 2x4 SPF 1650F 1.5E |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-2-8 max.): 5-7. |
| BOT CHORD | Rigid ceiling directly applied. |

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-56(LC 13)
Max Uplift 2=-313(LC 8), 10=-313(LC 9)
Max Grav 2=1571(LC 1), 10=1571(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-4=-3016/623, 4-5=-2941/587, 5-6=-3516/725, 6-7=-3516/724, 7-8=-2941/587, 8-10=-3016/623 |
| BOT CHORD | 2-16=-508/2789, 14-16=-442/2792, 12-14=-450/2792, 10-12=-517/2789 |
| WEBS | 5-16=0/261, 5-14=-197/947, 6-14=-574/195, 7-14=-197/947, 7-12=0/261 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-3-14, Interior(1) 1-3-14 to 9-2-4, Exterior(2R) 9-2-4 to 13-8-9, Interior(1) 13-8-9 to 22-9-12, Exterior(2R) 22-9-12 to 27-4-1, Interior(1) 27-4-1 to 33-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 313 lb uplift at joint 2 and 313 lb uplift at joint 10.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023



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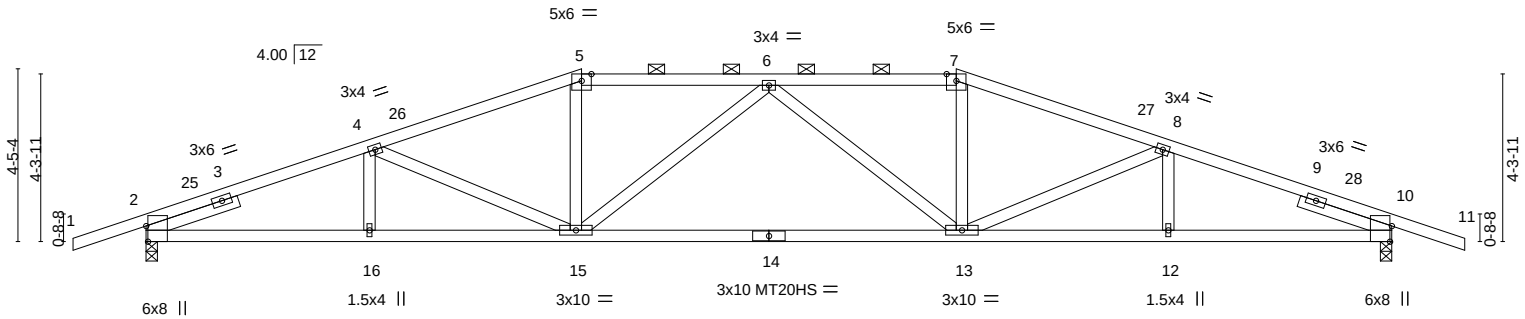
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | A3 | Hip | 1 | 1 | I58837490 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:40 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| -1-10-8 | 5-8-14 | 11-2-4 | 16-0-0 | 20-9-12 | 26-3-2 | 32-0-0 | 33-10-8 |
|---|---|---|---|---|---|---|---|
| 1-10-8 | 5-8-14 | 5-5-6 | 4-9-12 | 4-9-12 | 5-5-6 | 5-8-14 | 1-10-8 |

Scale = 1:59.2




| 5-8-14 | 11-2-4 | 20-9-12 | 26-3-2 | 32-0-0 |
|---|---|---|---|---|
| 5-8-14 | 5-5-6 | 9-7-8 | 5-5-6 | 5-8-14 |

Plate Offsets (X,Y)-- [2:0-4-13,Edge], [10:0-4-13,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.76 | Vert(LL) | -0.27 | 13-15 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.92 | Vert(CT) | -0.64 | 13-15 | >605 | 180 | MT20HS | 148/108 |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.34 | Horz(CT) | 0.14 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-AS | | | | | | | Weight: 125 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF 1650F 1.5E |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

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

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-67(LC 17)
Max Uplift 2=-305(LC 8), 10=-305(LC 9)
Max Grav 2=1571(LC 1), 10=1571(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-4=-3035/617, 4-5=-2789/576, 5-6=-2605/575, 6-7=-2605/575, 7-8=-2789/576, 8-10=-3035/617 |
| BOT CHORD | 2-16=-506/2817, 15-16=-506/2817, 13-15=-496/2841, 12-13=-515/2817, 10-12=-515/2817 |
| WEBS | 4-15=-258/131, 5-15=-37/478, 6-15=-471/148, 6-13=-471/148, 7-13=-37/478, 8-13=-258/132 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-3-14, Interior(1) 1-3-14 to 11-2-4, Exterior(2R) 11-2-4 to 16-0-0, Interior(1) 16-0-0 to 20-9-12, Exterior(2R) 20-9-12 to 25-4-1, Interior(1) 25-4-1 to 33-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 305 lb uplift at joint 2 and 305 lb uplift at joint 10.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023

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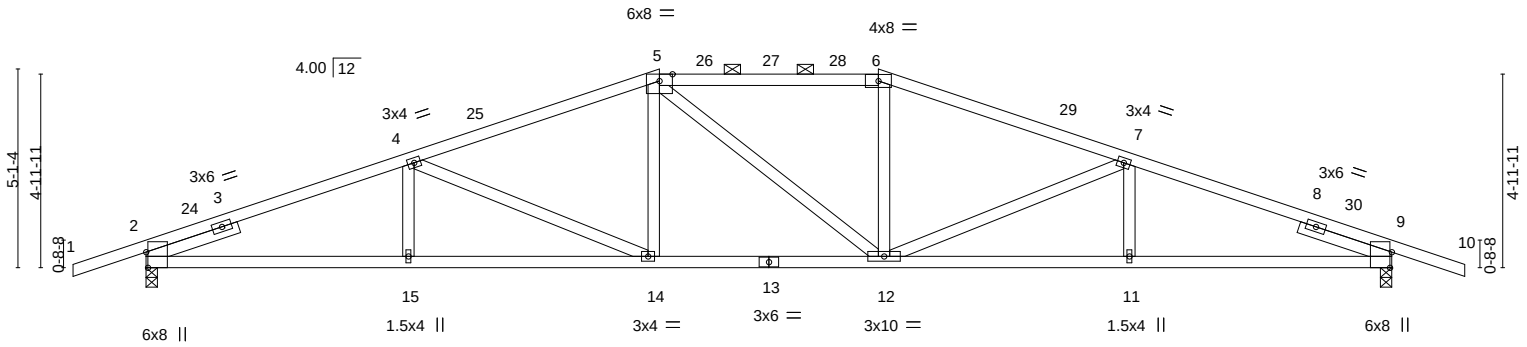
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | A4 | Hip | 1 | 1 | I58837491 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:41 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| -1-10-8 | 6-8-14 | 13-2-4 | 18-9-12 | 25-3-2 | 32-0-0 | 33-10-8 |
|---|---|---|---|---|---|---|
| 1-10-8 | 6-8-14 | 6-5-6 | 5-7-8 | 6-5-6 | 6-8-14 | 1-10-8 |

Scale = 1:59.2




| 6-8-14 | 13-2-4 | 18-9-12 | 25-3-2 | 32-0-0 |
|---|---|---|---|---|
| 6-8-14 | 6-5-6 | 5-7-8 | 6-5-6 | 6-8-14 |

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

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.87 | Vert(LL) | -0.25 | 14-15 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.80 | Vert(CT) | -0.47 | 14-15 | >816 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.44 | Horz(CT) | 0.14 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-AS | | | | | | | Weight: 124 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF 1650F 1.5E |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

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

**REACTIONS.** (size) 2=0-3-8, 9=0-3-8
Max Horz 2=78(LC 16)
Max Uplift 2=-295(LC 8), 9=-295(LC 9)
Max Grav 2=1571(LC 1), 9=1571(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-4=-3067/618, 4-5=-2579/563, 5-6=-2383/570, 6-7=-2579/563, 7-9=-3067/618 |
| BOT CHORD | 2-15=-501/2846, 14-15=-501/2846, 12-14=-380/2382, 11-12=-510/2846, 9-11=-510/2846 |
| WEBS | 4-14=-542/169, 5-14=-17/384, 6-12=-14/384, 7-12=-541/170 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-3-14, Interior(1) 1-3-14 to 13-2-4, Exterior(2R) 13-2-4 to 17-8-9, Interior(1) 17-8-9 to 18-9-12, Exterior(2R) 18-9-12 to 23-4-1, Interior(1) 23-4-1 to 33-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 295 lb uplift at joint 2 and 295 lb uplift at joint 9.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023



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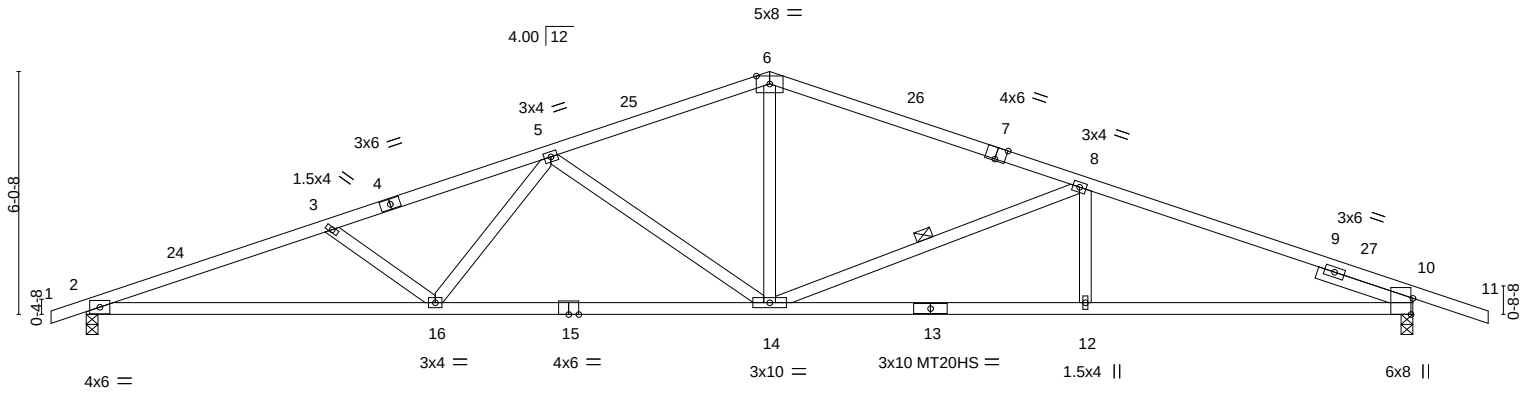
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | A5 | Common | 3 | 1 | I58837492 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:43 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| -0-10-8 | 6-1-6 | 11-6-11 | 17-0-0 | 24-10-4 | 33-0-0 | 34-10-8 |
|---|---|---|---|---|---|---|
| 0-10-8 | 6-1-6 | 5-5-5 | 5-5-5 | 7-10-4 | 8-1-12 | 1-10-8 |

Scale = 1:57.3




| 8-8-3 | 17-0-0 | 24-10-4 | 33-0-0 |
|---|---|---|---|
| 8-8-3 | 8-3-13 | 7-10-4 | 8-1-12 |

Plate Offsets (X,Y)-- [7:0-3-0,Edge], [10:0-4-13,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.71 | Vert(LL) | -0.29 | 12-14 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.85 | Vert(CT) | -0.56 | 12-14 | >703 | 180 | MT20HS | 148/108 |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.69 | Horz(CT) | 0.16 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 119 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except* |
| | 6-7,7-11: 2x4 SPF 1650F 1.5E |
| BOT CHORD | 2x4 SPF 1650F 1.5E *Except* |
| | 13-15: 2x4 SPF No.2 |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 8-14 |

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8
Max Horz 2=96(LC 12)
Max Uplift 2=-249(LC 8), 10=-282(LC 9)
Max Grav 2=1543(LC 1), 10=1619(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-3=-3776/669, 3-5=-3403/599, 5-6=-2355/483, 6-8=-2386/471, 8-10=-3186/570 |
| BOT CHORD | 2-16=-570/3531, 14-16=-422/2848, 12-14=-456/2954, 10-12=-456/2954 |
| WEBS | 3-16=-456/178, 5-16=-47/553, 5-14=-863/228, 6-14=-121/973, 8-14=-913/247, 8-12=0/274 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-2, Interior(1) 2-5-2 to 17-0-0, Exterior(2R) 17-0-0 to 20-3-10, Interior(1) 20-3-10 to 34-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 249 lb uplift at joint 2 and 282 lb uplift at joint 10.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


June 12,2023



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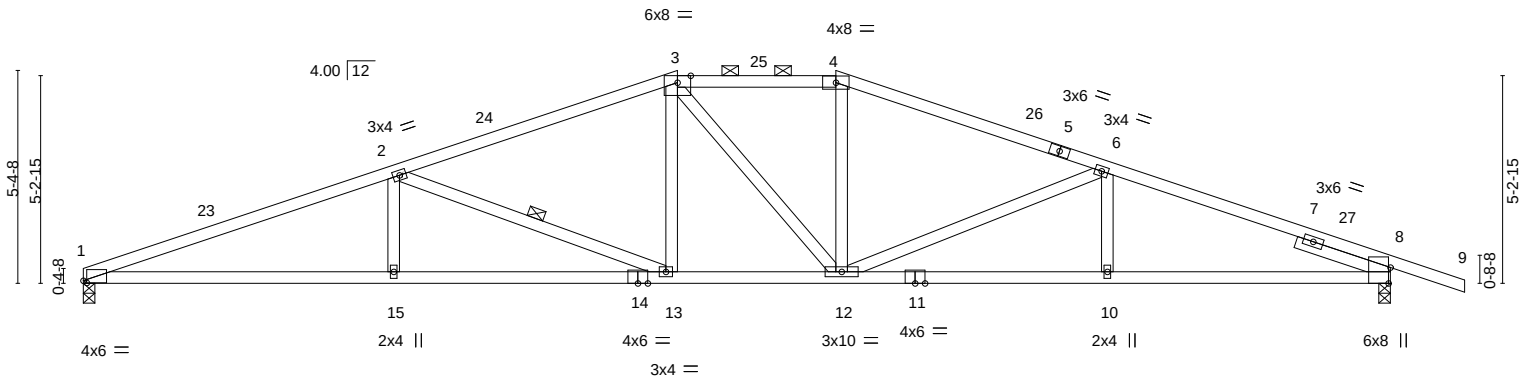
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | A6 | Hip | 1 | 1 | I58837493 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:44 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| 7-10-1 | 15-0-0 | 19-0-0 | 25-10-4 | 33-0-0 | 34-10-8 |
|---|---|---|---|---|---|
| 7-10-1 | 7-1-15 | 4-0-0 | 6-10-4 | 7-1-12 | 1-10-8 |

Scale = 1:58.2




| 7-10-1 | 15-0-0 | 19-0-0 | 25-10-4 | 33-0-0 |
|---|---|---|---|---|
| 7-10-1 | 7-1-15 | 4-0-0 | 6-10-4 | 7-1-12 |

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

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.96 | Vert(LL) | -0.28 | 10-12 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.99 | Vert(CT) | -0.53 | 10-12 | >745 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.59 | Horz(CT) | 0.17 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 122 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 *Except* |
| | 8-11: 2x4 SPF 1650F 1.5E |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-5-11 max.): 3-4. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 2-13 |

**REACTIONS.** (size) 1=0-3-8, 8=0-3-8
Max Horz 1=-89(LC 17)
Max Uplift 1=-229(LC 8), 8=-295(LC 9)
Max Grav 1=1481(LC 1), 8=1620(LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-2=-3705/723, 2-3=-2674/581, 3-4=-2422/561, 4-6=-2630/564, 6-8=-3195/613 |
| BOT CHORD | 1-15=-612/3449, 13-15=-612/3449, 12-13=-386/2448, 10-12=-503/2965, 8-10=-503/2965 |
| WEBS | 2-15=0/310, 2-13=-1073/259, 3-13=-44/482, 3-12=-266/205, 4-12=-35/399, 6-12=-641/189 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-3-10, Interior(1) 3-3-10 to 15-0-0, Exterior(2E) 15-0-0 to 19-0-0, Exterior(2R) 19-0-0 to 23-8-0, Interior(1) 23-8-0 to 34-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 229 lb uplift at joint 1 and 295 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023



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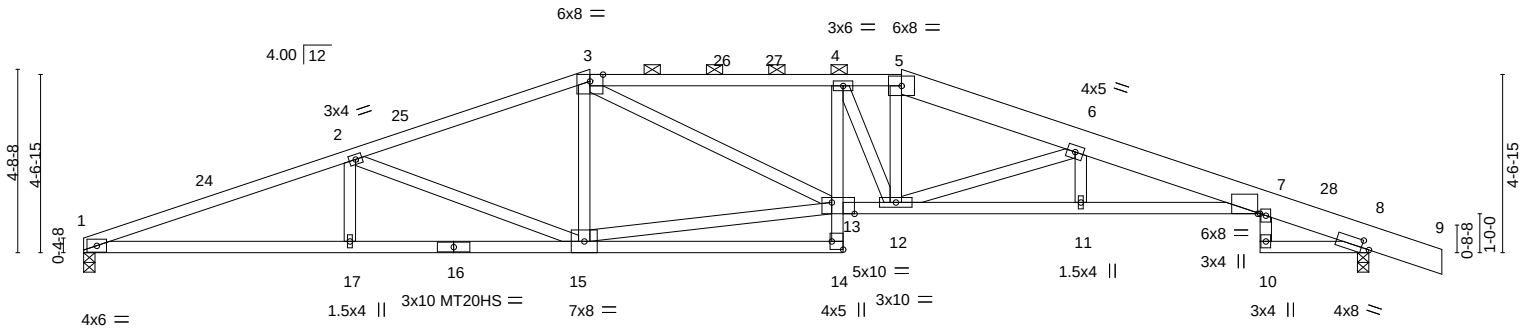
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | A7 | Hip | 1 | 1 | I58837494 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:46 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| 6-10-1 | 13-0-0 | 19-6-0 | 21-0-0 | 25-7-4 | 30-2-8 | 33-0-0 | 34-10-8 |
|---|---|---|---|---|---|---|---|
| 6-10-1 | 6-1-15 | 6-6-0 | 1-6-0 | 4-7-4 | 4-7-4 | 2-9-8 | 1-10-8 |

Scale = 1:59.2




| 6-10-1 | 13-0-0 | 19-6-0 | 21-0-0 | 25-7-4 | 30-2-8 | 33-0-0 |
|---|---|---|---|---|---|---|
| 6-10-1 | 6-1-15 | 6-6-0 | 1-6-0 | 4-7-4 | 4-7-4 | 2-9-8 |

Plate Offsets (X,Y)-- [7:0-0-11,Edge], [8:0-2-7,0-2-5], [13:0-7-0,Edge], [14:Edge,0-3-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.84 | Vert(LL) | -0.44 | 12-13 | >903 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.93 | Vert(CT) | -0.79 | 12-13 | >501 | 180 | MT20HS | 148/108 |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.73 | Horz(CT) | 0.35 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 160 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2 *Except* 5-9: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 7-13: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.** (size) 1=0-3-8, 8=0-3-8
Max Horz 1=-82(LC 17)
Max Uplift 1=-239(LC 8), 8=-306(LC 9)
Max Grav 1=1481(LC 1), 8=1620(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3763/742, 2-3=-2975/627, 3-4=-3587/788, 4-5=-3468/741, 5-6=-3675/749, 6-7=-5115/1003, 7-8=-570/154
BOT CHORD 1-17=-631/3511, 15-17=-631/3511, 14-15=-30/375, 12-13=-607/3586, 11-12=-905/5010, 7-11=-906/5011
WEBS 2-15=-820/224, 13-15=-423/2414, 3-13=-189/1038, 4-12=-429/124, 5-12=-200/1053, 6-12=-1688/366

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-3-10, Interior(1) 3-3-10 to 13-0-0, Exterior(2R) 13-0-0 to 17-8-0, Interior(1) 17-8-0 to 21-0-0, Exterior(2R) 21-0-0 to 25-7-4, Interior(1) 25-7-4 to 34-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 239 lb uplift at joint 1 and 306 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023

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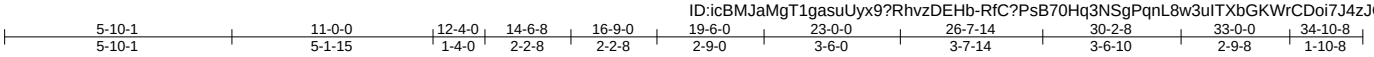
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | A8 | Hip | 1 | 1 | I58837495 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:47 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




Scale = 1:59.2

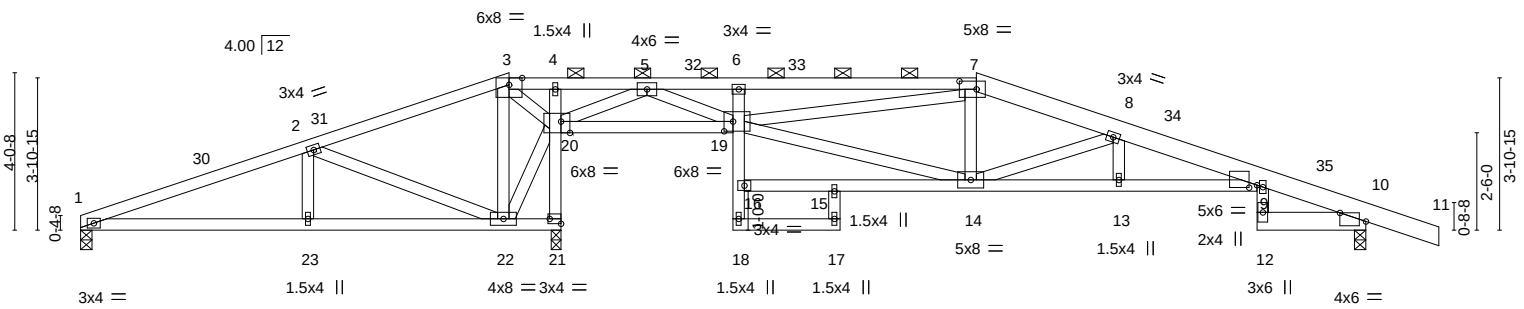




Plate Offsets (X,Y)-- [7:0-5-4,0-2-8], [9:0-2-7,0-0-12], [10:0-8-0,Edge], [19:0-2-12,0-3-0], [20:0-2-12,Edge], [21:Edge,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.78 | Vert(LL) | -0.25 | 9-13 | >984 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.81 | Vert(CT) | -0.46 | 9-13 | >540 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.45 | Horz(CT) | 0.11 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 144 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2 *Except*
7-11: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
9-16: 2x4 SPF 1650F 1.5E, 10-12: 2x6 SPF No.2
WEBS 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (5-2-1 max.): 3-7.
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 1=0-3-8, 21=0-3-0, 10=0-3-8
Max Horz 1=-69(LC 17)
Max Uplift 1=-93(LC 12), 21=-283(LC 8), 10=-227(LC 9)
Max Grav 1=347(LC 25), 21=1885(LC 1), 10=930(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-441/298, 2-3=-32/682, 3-4=-414/2550, 4-5=-430/2578, 5-6=-988/222,
6-7=-1056/282, 7-8=-1437/331, 8-9=-2369/503, 9-10=-410/114
BOT CHORD 1-23=-260/387, 22-23=-260/387, 20-21=-1902/332, 19-20=-747/204, 6-19=-335/127,
13-14=-423/2334, 9-13=-423/2335, 9-12=-45/319
WEBS 2-22=-864/203, 3-22=-302/1450, 20-22=-1331/316, 3-20=-2707/569, 7-14=-12/260,
8-14=-1076/251, 5-20=-2026/414, 5-19=-301/1830, 14-19=-191/1252, 7-19=-338/114

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-3-10, Interior(1) 3-3-10 to 11-0-0, Exterior(2R) 11-0-0 to 15-8-0, Interior(1) 15-8-0 to 23-0-0, Exterior(2R) 23-0-0 to 27-8-0, Interior(1) 27-8-0 to 34-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 1, 283 lb uplift at joint 21 and 227 lb uplift at joint 10.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.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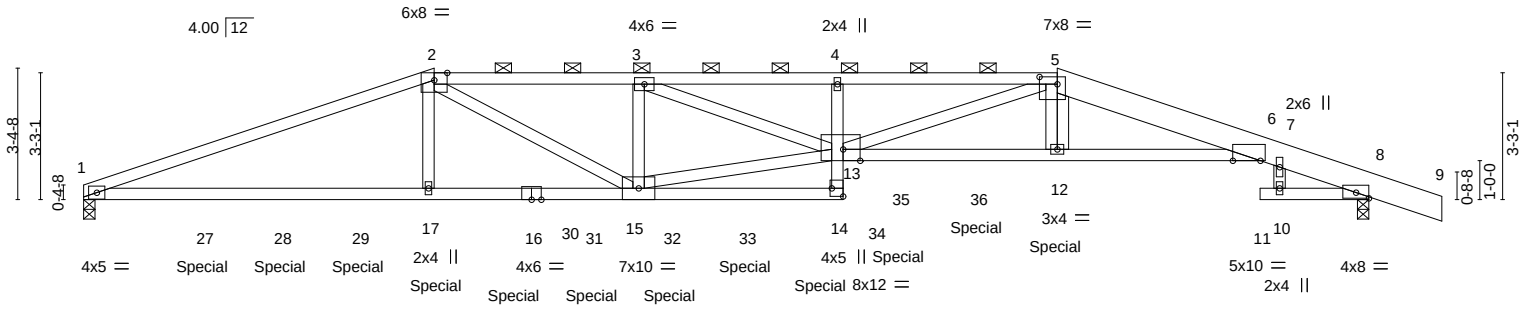
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | A9 | HIP GIRDER | 1 | 3 | I58837496 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:50 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| 4-10-1 | 9-0-0 | 14-3-0 | 19-6-0 | 25-0-0 | 30-2-8 | 30-8-8 | 33-0-0 | 34-10-8 |
|---|---|---|---|---|---|---|---|---|
| 4-10-1 | 4-1-15 | 5-3-0 | 5-3-0 | 5-6-0 | 5-2-8 | 0-6-0 | 2-3-8 | 1-10-8 |

Scale = 1:59.2




| 4-10-1 | 9-0-0 | 14-3-0 | 19-6-0 | 25-0-0 | 30-2-8 | 30-8-8 | 33-0-0 |
|---|---|---|---|---|---|---|---|
| 4-10-1 | 4-1-15 | 5-3-0 | 5-3-0 | 5-6-0 | 5-2-8 | 0-6-0 | 2-3-8 |

Plate Offsets (X,Y)-- [5:0-5-8,0-2-4], [6:0-8-8,0-0-0], [8:Edge,0-1-12], [13:0-5-4,Edge], [14:Edge,0-3-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.82 | Vert(LL) | -0.58 | 12-13 | >677 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.95 | Vert(CT) | -1.05 | 12-13 | >377 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.86 | Horz(CT) | 0.33 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MS | | | | | | | Weight: 445 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SP 2400F 2.0E *Except*
2-5: 2x4 SPF 1650F 1.5E, 5-9: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
1-16,6-13: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.** (size) 1=0-3-8, 8=0-3-8
Max Horz 1=-61(LC 34)
Max Uplift 1=-860(LC 4), 8=-888(LC 5)
Max Grav 1=3925(LC 1), 8=3775(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-10084/2273, 2-3=-11591/2700, 3-4=-16697/3842, 4-5=-17203/3957, 5-6=-14118/3202, 6-7=-1082/306, 7-8=-1211/319
BOT CHORD 1-17=-2114/9530, 15-17=-2102/9461, 14-15=-315/1398, 13-14=-129/614, 4-13=-289/166, 12-13=-3003/13692, 6-12=-3003/13692
WEBS 2-17=-252/1433, 2-15=-677/2682, 3-15=-2455/606, 13-15=-2376/10505, 3-13=-1211/5336, 5-13=-932/3887, 5-12=-390/1845, 7-10=-47/298

**NOTES-**

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 860 lb uplift at joint 1 and 888 lb uplift at joint 8.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.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**NOTES-**

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 379 lb down and 89 lb up at 3-0-12, 323 lb down and 79 lb up at 5-0-12, 323 lb down and 79 lb up at 7-0-12, 323 lb down and 100 lb up at 9-0-12, 323 lb down and 100 lb up at 11-0-12, 323 lb down and 100 lb up at 13-0-12, 323 lb down and 100 lb up at 15-0-12, 323 lb down and 100 lb up at 17-0-0, 323 lb down and 100 lb up at 18-11-4, 323 lb down and 99 lb up at 20-11-4, and 323 lb down and 99 lb up at 22-11-4, and 989 lb down and 281 lb up at 24-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

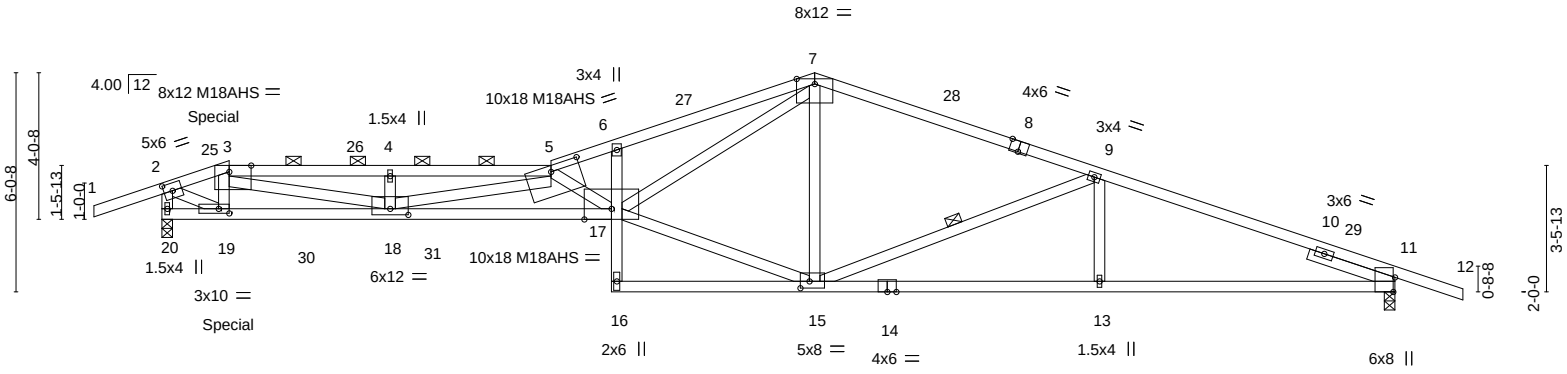
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 2-5=-70, 5-9=-70, 14-18=-20, 13-21=-20, 11-24=-20
   Concentrated Loads (lb)
   Vert: 17=-323(F) 12=-989(F) 27=-379(F) 28=-323(F) 29=-323(F) 30=-323(F) 31=-323(F) 32=-323(F) 33=-323(F) 34=-323(F) 35=-323(F) 36=-323(F)

| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | B1 | Roof Special | 1 | 1 | I58837497 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:52 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| -1-10-8 | 1-10-4 | 6-3-8 | 10-8-12 | 12-4-12 | 18-0-0 | 25-10-4 | 34-0-0 | 35-10-8 |
|---|---|---|---|---|---|---|---|---|
| 1-10-8 | 1-10-4 | 4-5-4 | 4-5-4 | 1-8-0 | 5-7-4 | 7-10-4 | 8-1-12 | 1-10-8 |

Scale: 3/16"=1'




| 1-10-4 | 6-3-8 | 10-8-12 | 12-4-12 | 18-0-0 | 25-10-4 | 34-0-0 |
|---|---|---|---|---|---|---|
| 1-10-4 | 4-5-4 | 4-5-4 | 1-8-0 | 5-7-4 | 7-10-4 | 8-1-12 |

Plate Offsets (X,Y)-- [2:0-2-14,0-2-8], [3:0-7-4,Edge], [5:0-9-8,0-2-0], [8:0-3-0,Edge], [11:0-4-13,Edge], [15:0-3-0,0-2-4], [18:0-6-0,0-2-0], [19:0-3-8,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.82 | Vert(LL) | -0.80 | 17 | >511 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.89 | Vert(CT) | -1.43 | 17-18 | >284 | 180 | M18AHS | 142/136 |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.72 | Horz(CT) | 0.26 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-AS | | | | | | | Weight: 144 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF 1650F 1.5E *Except* 1-3: 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 *Except* 17-20: 2x4 SP 2400F 2.0E, 11-14: 2x4 SPF 1650F 1.5E |
| WEBS | 2x4 SPF No.2 *Except* 7-17,5-18,3-18: 2x4 SPF 1650F 1.5E |
| SLIDER | Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-5. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 9-15 |

**REACTIONS.** (size) 20=0-3-8, 11=0-3-8
Max Horz 20=-129(LC 45)
Max Uplift 20=-306(LC 8), 11=-288(LC 9)
Max Grav 20=1634(LC 1), 11=1652(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-3=-1960/352, 3-4=-6205/1091, 4-5=-6205/1091, 5-6=-6524/1139, 6-7=-6304/1175, 7-9=-2485/508, 9-11=-3274/597, 2-20=-1659/387 |
| BOT CHORD | 18-19=-259/1956, 17-18=-1381/8544, 13-15=-481/3036, 11-13=-481/3036 |
| WEBS | 3-19=-779/152, 5-17=-2949/550, 15-17=-290/2233, 7-17=-770/4454, 7-15=-309/112, 9-15=-912/244, 9-13=0/281, 2-19=-380/2120, 4-18=-474/142, 5-18=-2519/510, 3-18=-783/4412 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-6-5, Interior(1) 1-6-5 to 1-10-4, Exterior(2E) 1-10-4 to 5-3-1, Interior(1) 5-3-1 to 18-0-0, Exterior(2R) 18-0-0 to 21-4-13, Interior(1) 21-4-13 to 35-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 306 lb uplift at joint 20 and 288 lb uplift at joint 11.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 167 lb up at 1-10-4 on top chord, and 25 lb down and 32 lb up at 1-10-4, 22 lb down and 31 lb up at 1-11-0, and 22 lb down and 31 lb up at 3-11-0, and 22 lb down and 31 lb up at 5-11-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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**NOTES-**

11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

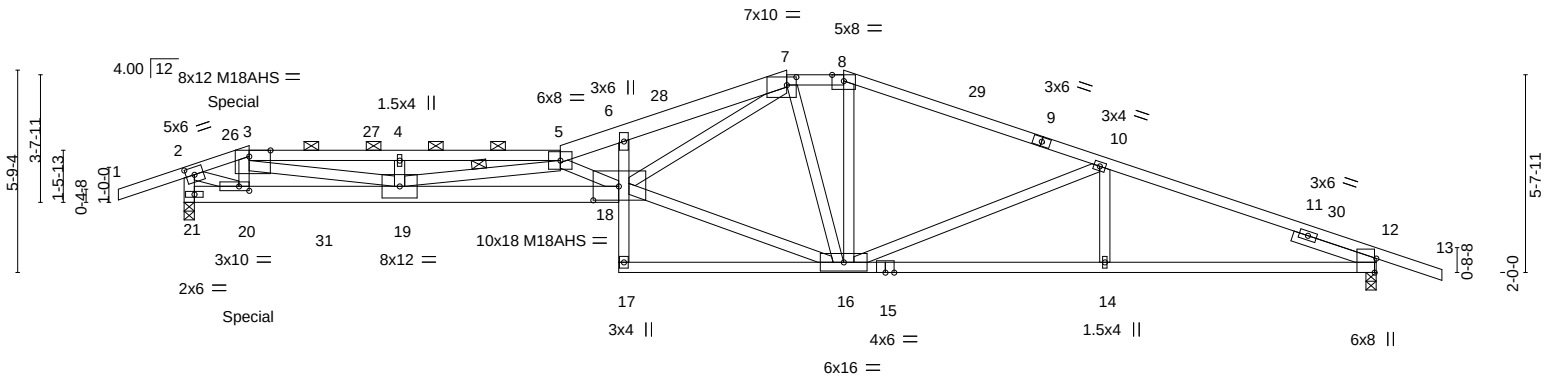
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-7=-70, 7-12=-70, 17-20=-20, 16-21=-20
   Concentrated Loads (lb)
   Vert: 3=33(F)

| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | B1A | Roof Special | 1 | 1 | I58837498 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:55 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| -1-10-8 | 1-10-4 | 6-1-12 | 10-8-12 | 12-4-12 | 17-2-4 | 18-9-12 | 26-3-2 | 34-0-0 | 35-10-8 |
|---|---|---|---|---|---|---|---|---|---|
| 1-10-8 | 1-10-4 | 4-3-8 | 4-7-0 | 1-8-0 | 4-9-8 | 1-7-8 | 7-5-6 | 7-8-14 | 1-10-8 |

Scale = 1:65.7




| 1-10-4 | 6-1-12 | 10-8-12 | 12-4-12 | 17-2-4 | 18-9-12 | 26-3-2 | 34-0-0 |
|---|---|---|---|---|---|---|---|
| 1-10-4 | 4-3-8 | 4-7-0 | 1-8-0 | 4-9-8 | 1-7-8 | 7-5-6 | 7-8-14 |

Plate Offsets (X,Y)-- [2:0-2-14,0-2-8], [3:0-7-4,Edge], [7:0-3-4,0-2-12], [12:0-4-13,Edge], [18:0-8-12,0-4-12], [20:0-3-8,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.90 | Vert(LL) | -0.76 | 17 | >537 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.86 | Vert(CT) | -1.36 | 17 | >299 | 180 | M18AHS | 142/136 |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 1.00 | Horz(CT) | 0.24 | 12 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 156 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except* 3-5,9-13: 2x4 SPF 1650F 1.5E, 5-7: 2x6 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 *Except* 18-21: 2x6 SPF 2100F 1.8E, 12-15: 2x4 SPF 1650F 1.5E |
| WEBS | 2x4 SPF No.2 *Except* 7-18: 2x4 SPF 1650F 1.5E |
| SLIDER | Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-5, 7-8. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 5-19 |

**REACTIONS.** (size) 12=0-3-8, 21=0-3-8
Max Horz 21=-125(LC 13)
Max Uplift 12=-293(LC 9), 21=-311(LC 8)
Max Grav 12=1652(LC 1), 21=1634(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-3=-2275/418, 3-4=-6176/1118, 4-5=-6174/1116, 5-6=-6932/1266, 6-7=-6721/1294, 7-8=-2391/539, 8-10=-2592/540, 10-12=-3277/606, 2-21=-1753/409 |
| BOT CHORD | 19-20=-292/2232, 18-19=-1608/9407, 14-16=-492/3040, 12-14=-492/3040 |
| WEBS | 3-20=-541/110, 5-18=-3411/650, 8-16=-43/488, 10-16=-787/223, 10-14=0/258, 2-20=-434/2323, 4-19=-404/130, 3-19=-727/4085, 7-16=-919/174, 5-19=-3379/674, 16-18=-367/2559, 7-18=-818/4563 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-6-5, Interior(1) 1-6-5 to 1-10-4, Exterior(2E) 1-10-4 to 5-3-1, Interior(1) 5-3-1 to 17-2-4, Exterior(2E) 17-2-4 to 18-9-12, Exterior(2R) 18-9-12 to 22-2-9, Interior(1) 22-2-9 to 35-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) The Fabrication Tolerance at joint 18 = 16%
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearing at joint(s) 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 293 lb uplift at joint 12 and 311 lb uplift at joint 21.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.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Continued on page 2



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**NOTES-**

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 167 lb up at 1-10-4 on top chord, and 25 lb down and 32 lb up at 1-10-4, 22 lb down and 31 lb up at 1-11-0, and 22 lb down and 31 lb up at 3-11-0, and 22 lb down and 31 lb up at 5-11-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

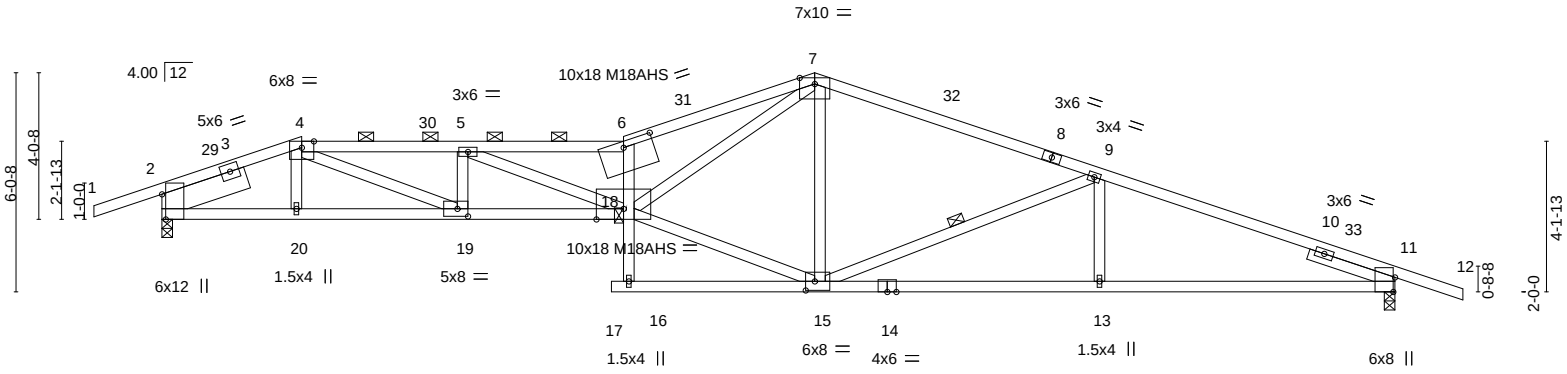
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-7=-70, 7-8=-70, 8-13=-70, 18-21=-20, 17-22=-20
   Concentrated Loads (lb)
   Vert: 3=33(B)

| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | B2 | Roof Special | 2 | 1 | I58837499 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:56 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| -1-10-8 | 3-10-4 | 8-1-8 | 8-3-8 | 12-4-12 | 12-8-12 | 18-0-0 | 25-10-4 | 34-0-0 | 35-10-8 |
|---|---|---|---|---|---|---|---|---|---|
| 1-10-8 | 3-10-4 | 4-3-4 | 0-2-0 | 4-1-4 | 0-4-0 | 5-3-4 | 7-10-4 | 8-1-12 | 1-10-8 |

Scale: 3/16"=1'




| 3-10-4 | 8-3-8 | 12-4-12 | 18-0-0 | 25-10-4 | 34-0-0 |
|---|---|---|---|---|---|
| 3-10-4 | 4-5-4 | 4-1-4 | 5-7-4 | 7-10-4 | 8-1-12 |

Plate Offsets (X,Y)-- [2:0-8-5,Edge], [6:0-9-12,0-2-0], [11:0-4-13,Edge], [15:0-3-0,0-3-0], [19:0-3-8,0-2-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.90 | Vert(LL) | -0.65 | 17 | >632 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.96 | Vert(CT) | -1.16 | 17 | >351 | 180 | M18AHS | 142/136 |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.77 | Horz(CT) | 0.23 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 145 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF 1650F 1.5E |
| BOT CHORD | 2x4 SPF 1650F 1.5E *Except* 14-17: 2x4 SPF No.2 |
| WEBS | 2x4 SPF No.2 *Except* 7-18: 2x4 SPF 1650F 1.5E |
| SLIDER | Left 2x8 SP 2400F 2.0E 2-6-0, Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-14 max.): 4-6. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 6-16, 9-15 |

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8
Max Horz 2=-142(LC 13)
Max Uplift 2=-297(LC 8), 11=-282(LC 9)
Max Grav 2=1665(LC 1), 11=1664(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-4=-2763/501, 4-5=-5191/936, 5-6=-6300/1124, 6-7=-6559/1205, 7-9=-2529/510, 9-11=-3303/603 |
| BOT CHORD | 2-20=-326/2531, 19-20=-330/2540, 18-19=-787/5188, 13-15=-487/3063, 11-13=-487/3063 |
| WEBS | 6-18=-2298/472, 7-15=-344/113, 9-15=-894/240, 9-13=0/275, 15-18=-312/2349, 7-18=-786/4713, 5-19=-1025/241, 4-19=-504/2885, 5-18=-217/1203 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-6-5, Interior(1) 1-6-5 to 3-10-4, Exterior(2R) 3-10-4 to 7-3-1, Interior(1) 7-3-1 to 18-0-0, Exterior(2R) 18-0-0 to 21-4-13, Interior(1) 21-4-13 to 35-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 297 lb uplift at joint 2 and 282 lb uplift at joint 11.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | B3 | Roof Special | 1 | 1 | I58837500 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:58 2023 Page 1
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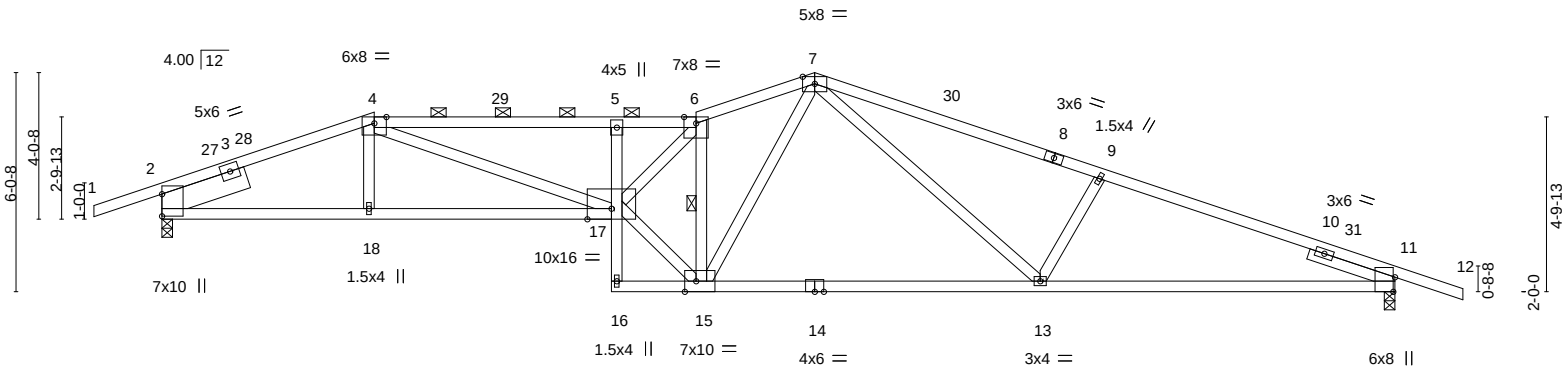
| -1-10-8 | 5-10-4 | 12-4-12 | 14-8-12 | 18-0-0 | 25-10-4 | 34-0-0 | 35-10-8 |
|---|---|---|---|---|---|---|---|
| 1-10-8 | 5-10-4 | 6-6-8 | 2-4-0 | 3-3-4 | 7-10-4 | 8-1-12 | 1-10-8 |

Scale: 3/16"=1'




| 5-10-4 | 12-4-12 | 14-8-12 | 24-2-10 | 34-0-0 |
|---|---|---|---|---|
| 5-10-4 | 6-6-8 | 2-4-0 | 9-5-14 | 9-9-6 |

Plate Offsets (X,Y)-- [2:Edge,0-0-0], [11:0-4-13,Edge], [15:0-3-12,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.87 | Vert(LL) | -0.41 | 5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.84 | Vert(CT) | -0.82 | 13-15 | >495 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.89 | Horz(CT) | 0.17 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 152 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP 2400F 2.0E *Except* |
| | 6-7: 2x4 SPF No.2, 7-8,8-12: 2x4 SPF 1650F 1.5E |
| BOT CHORD | 2x4 SPF No.2 *Except* |
| | 2-17: 2x4 SP 2400F 2.0E, 11-14: 2x4 SPF 1650F 1.5E |
| WEBS | 2x4 SPF No.2 |
| SLIDER | Left 2x8 SP 2400F 2.0E 2-6-0, Right 2x4 SPF No.2 2-6-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except |
| | 2-0-0 oc purlins (2-7-15 max.): 4-6. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 6-15 |

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8
Max Horz 2=-142(LC 13)
Max Uplift 2=-299(LC 8), 11=-281(LC 9)
Max Grav 2=1661(LC 1), 11=1661(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-4=-2987/552, 4-5=-4870/919, 5-6=-4746/897, 6-7=-2916/623, 7-9=-3088/620, 9-11=-3299/625 |
| BOT CHORD | 2-18=-367/2755, 17-18=-371/2756, 5-17=-615/187, 13-15=-325/2265, 11-13=-508/3061 |
| WEBS | 4-17=-410/2264, 15-17=-507/3645, 6-17=-475/2930, 6-15=-3093/549, 7-15=-179/1045, 7-13=-160/864, 9-13=-479/219 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-6-5, Interior(1) 1-6-5 to 5-10-4, Exterior(2R) 5-10-4 to 9-3-1, Interior(1) 9-3-1 to 18-0-0, Exterior(2R) 18-0-0 to 21-4-13, Interior(1) 21-4-13 to 35-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 299 lb uplift at joint 2 and 281 lb uplift at joint 11.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | CJ1 | Diagonal Hip Girder | 2 | 1 | I58837501 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:12:59 2023 Page 1

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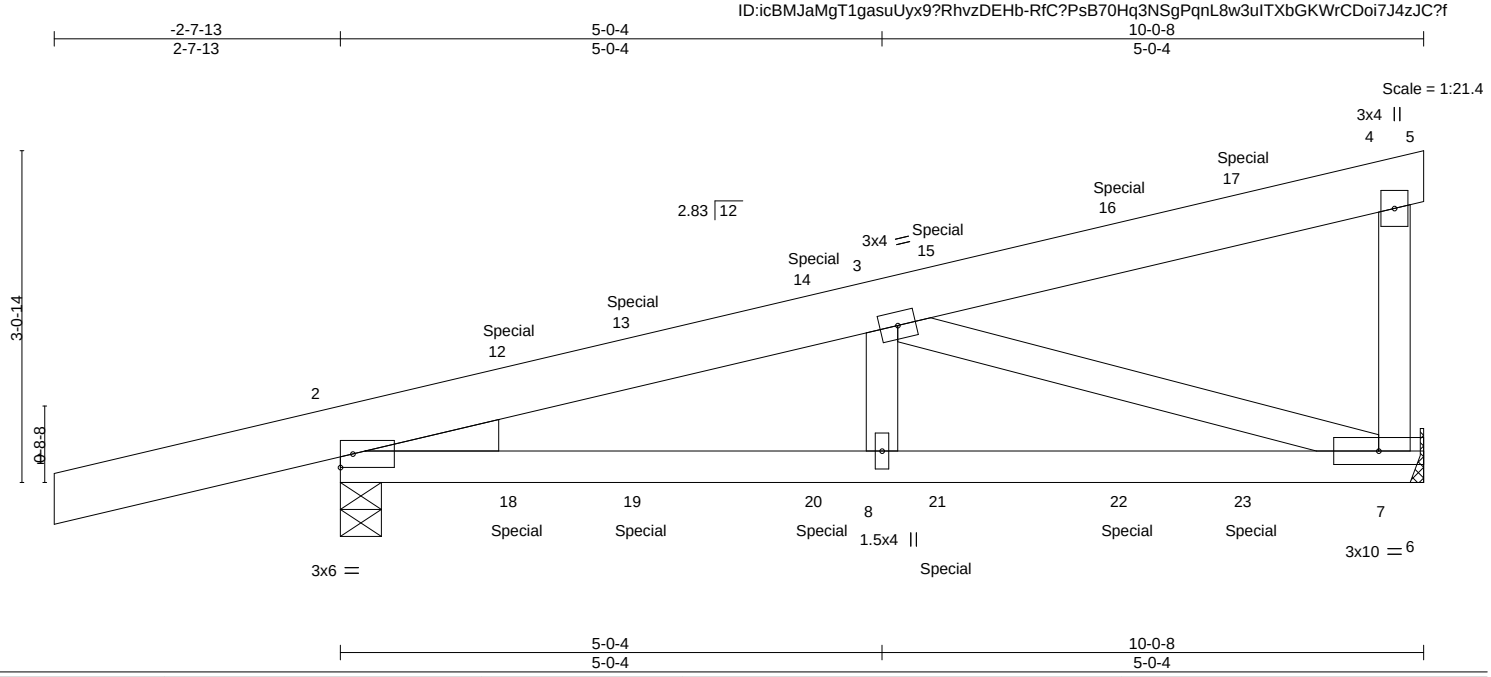


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.33 | Vert(LL) | -0.03 | 7-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.38 | Vert(CT) | -0.06 | 7-8 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.30 | Horz(CT) | 0.01 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 46 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

**BRACING-**

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

**REACTIONS.** (size) 2=0-4-9, 7=Mechanical
Max Horz 2=97(LC 27)
Max Uplift 2=-191(LC 4), 7=-103(LC 8)
Max Grav 2=617(LC 1), 7=575(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-797/136
BOT CHORD 2-8=-154/731, 7-8=-154/731
WEBS 3-7=-704/168

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 2 and 103 lb uplift at joint 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 83 lb down and 173 lb up at 1-7-11, 12 lb down and 15 lb up at 2-9-8, 15 lb down and 32 lb up at 4-5-10, 35 lb down and 52 lb up at 5-7-7, and 52 lb down and 76 lb up at 7-3-10, and 76 lb down and 87 lb up at 8-5-6 on top chord, and 11 lb down and 64 lb up at 1-7-11, 10 lb down and 6 lb up at 2-9-8, 24 lb down and 7 lb up at 4-5-10, 22 lb down at 5-7-7, and 33 lb down at 7-3-10, and 45 lb down at 8-5-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-70, 4-5=-20, 6-9=-20
   Concentrated Loads (lb)
   Vert: 12=49(F) 15=-6(B) 16=-45(F) 17=-76(B) 18=32(F) 19=6(B) 20=7(F) 21=-12(B) 22=-29(F) 23=-41(B)


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | CJ2 | Diagonal Hip Girder | 1 | 1 | I58837502 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:02 2023 Page 1
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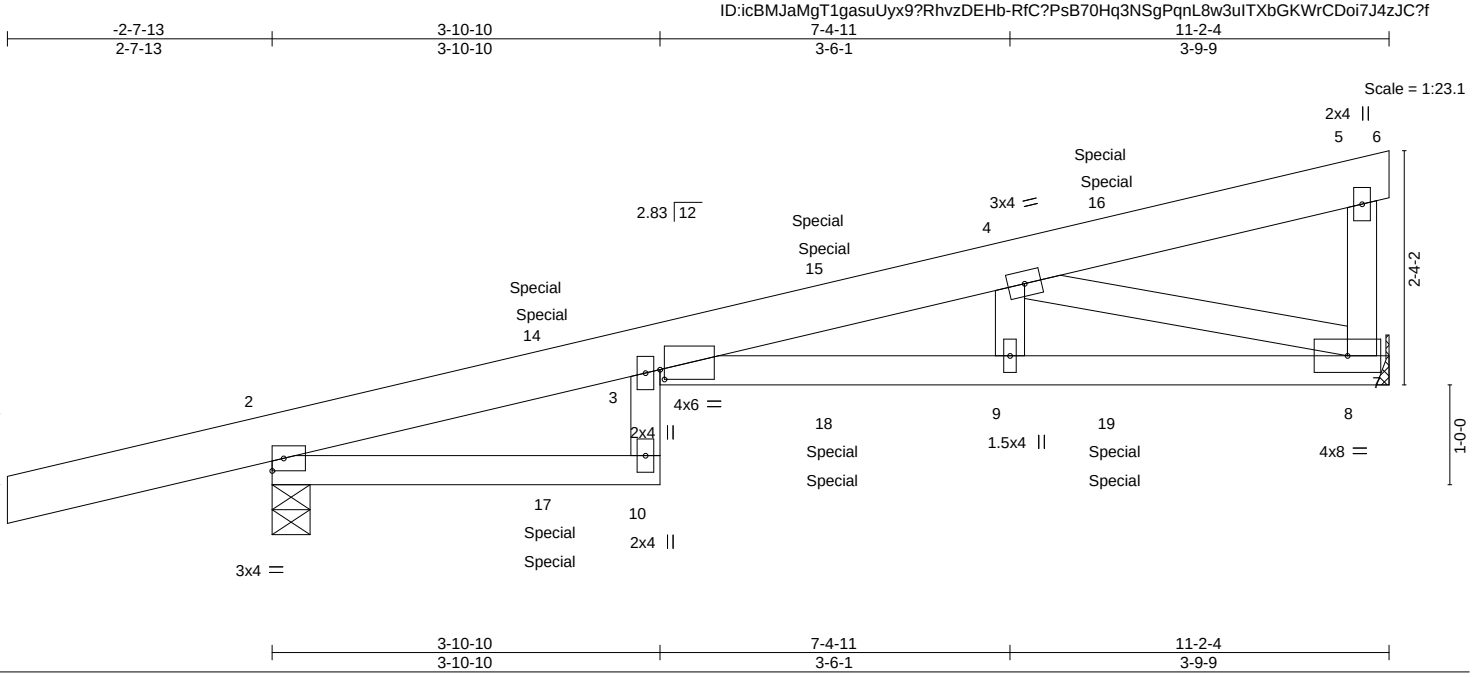


Plate Offsets (X,Y)-- [3:0-0-8,0-1-3]

| LOADING | (psf) | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.75 | Vert(LL) | -0.22 | 3-9 | >595 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.91 | Vert(CT) | -0.41 | 3-9 | >320 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.42 | Horz(CT) | 0.17 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 46 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-10-14 oc bracing.

**REACTIONS.** (size) 8=Mechanical, 2=0-4-9
Max Horz 2=90(LC 5)
Max Uplift 8=-154(LC 8), 2=-227(LC 4)
Max Grav 8=694(LC 1), 2=779(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-1695/407
BOT CHORD 3-9=-427/1701, 8-9=-426/1699
WEBS 4-8=-1726/450

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 154 lb uplift at joint 8 and 227 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 12 lb down and 15 lb up at 2-9-8, 12 lb down and 15 lb up at 2-9-8, 32 lb down and 39 lb up at 5-7-7, 32 lb down and 39 lb up at 5-7-7, and 59 lb down and 73 lb up at 8-5-6, and 59 lb down and 73 lb up at 8-5-6 on top chord, and 10 lb down and 6 lb up at 2-9-8, 10 lb down and 6 lb up at 2-9-8, 32 lb down and 25 lb up at 5-7-7, 32 lb down and 25 lb up at 5-7-7, and 61 lb down and 32 lb up at 8-5-6, and 61 lb down and 32 lb up at 8-5-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 5-6=-20, 10-11=-20, 3-7=-20
Concentrated Loads (lb)
Vert: 15=-12(F=-6, B=-6) 16=-109(F=-54, B=-54) 17=12(F=6, B=6) 18=-63(F=-32, B=-32) 19=-123(F=-61, B=-61)


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | CJ3 | Diagonal Hip Girder | 1 | 1 | I58837503 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:03 2023 Page 1
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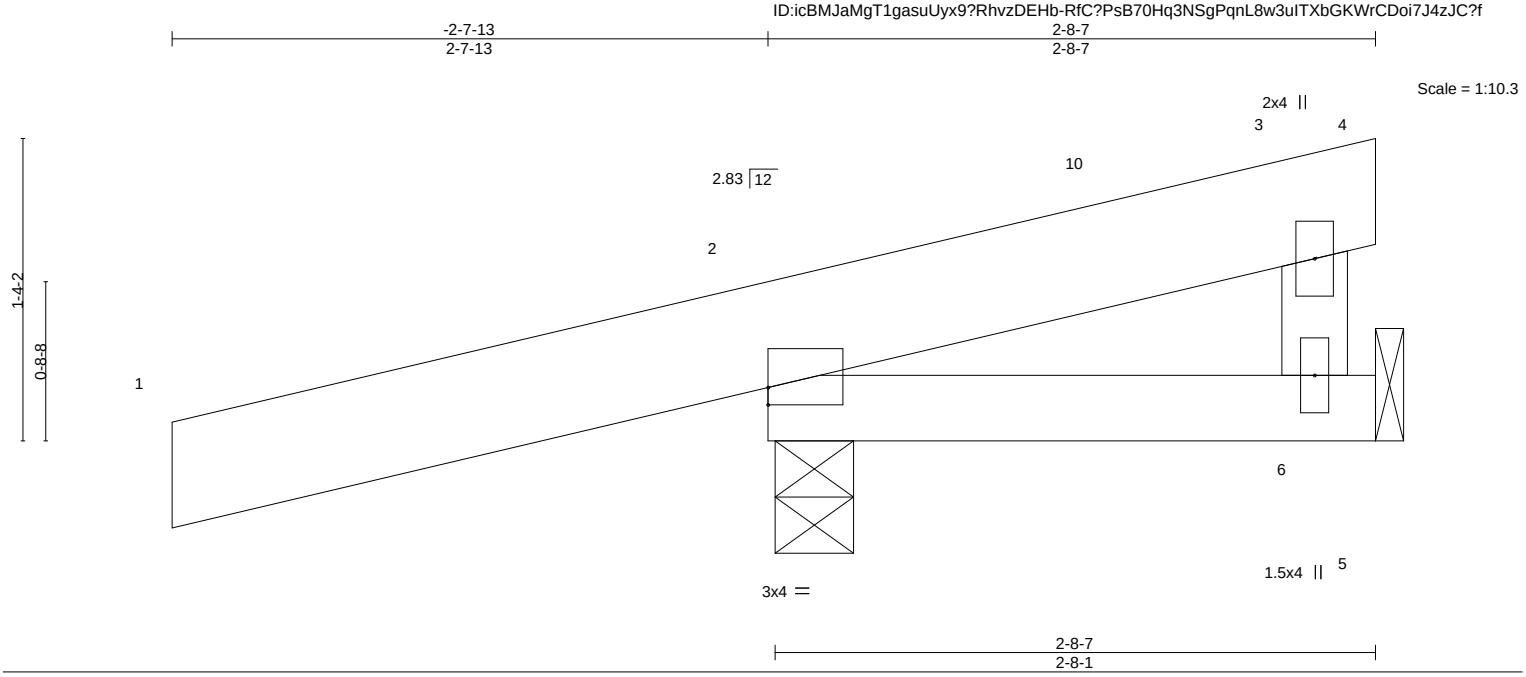


Plate Offsets (X,Y)-- [2:0-0-0,0-0-15]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.25 | Vert(LL) | 0.00 | 6-9 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | 0.00 | 6-9 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MP | | | | | | | Weight: 14 lb | FT = 20% |

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

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

**REACTIONS.** (size) 6=Mechanical, 2=0-4-3
Max Horz 2=43(LC 11)
Max Uplift 6=-1(LC 9), 2=-167(LC 8)
Max Grav 6=61(LC 3), 2=396(LC 1)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-7-13 to 1-7-1, Exterior(2R) 1-7-1 to 2-8-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 6 and 167 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | CJ4 | Diagonal Hip Girder | 2 | 1 | I58837504 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:04 2023 Page 1
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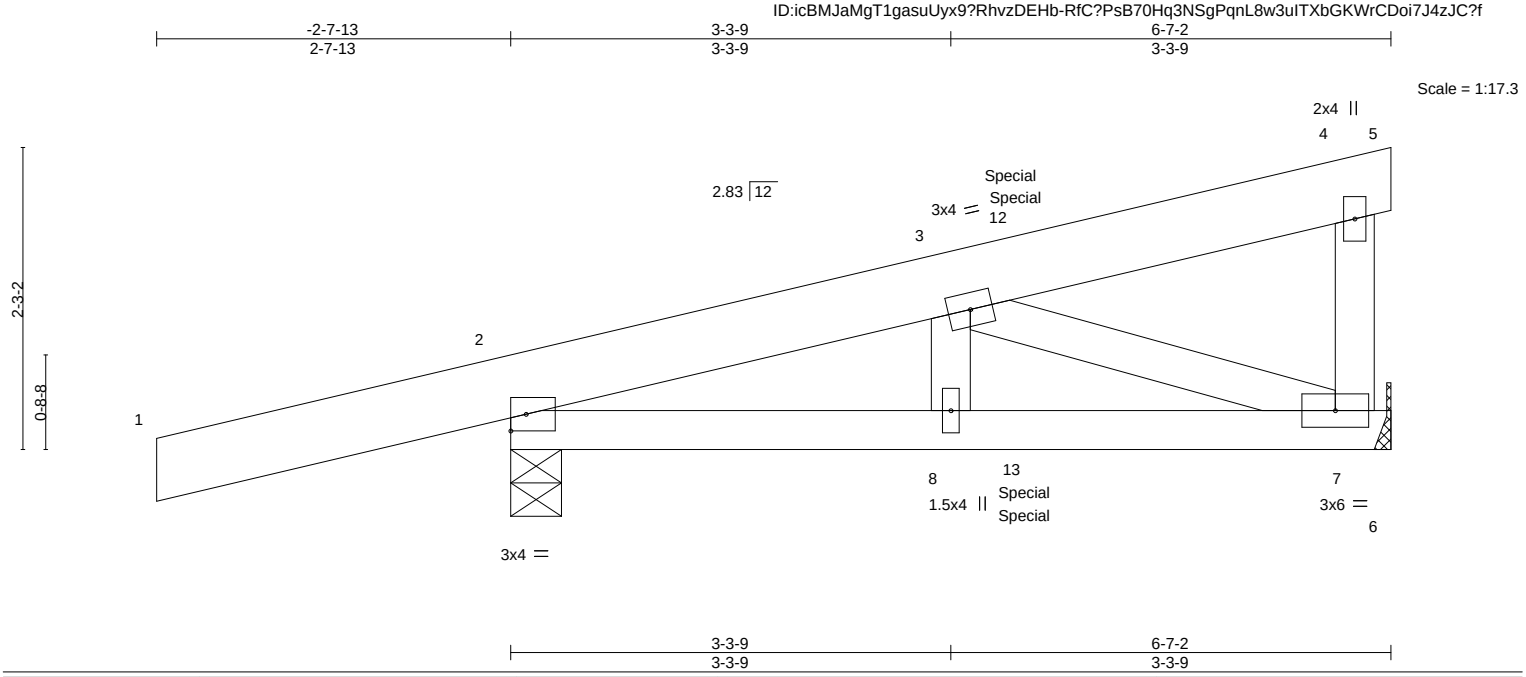


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.25 | Vert(LL) | -0.01 | 8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.18 | Vert(CT) | -0.01 | 7-8 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.06 | Horz(CT) | 0.00 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 31 lb | FT = 20% |

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

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

**REACTIONS.** (size) 2=0-4-9, 7=Mechanical
Max Horz 2=78(LC 7)
Max Uplift 2=-164(LC 4), 7=-49(LC 8)
Max Grav 2=508(LC 1), 7=256(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-311/36
BOT CHORD 2-8=-36/261, 7-8=-36/261
WEBS 3-7=-278/55

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 2 and 49 lb uplift at joint 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 17 lb down and 30 lb up at 3-10-4, and 17 lb down and 30 lb up at 3-10-4 on top chord, and 11 lb down and 1 lb up at 3-10-4, and 11 lb down and 1 lb up at 3-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-20, 6-9=-20
Concentrated Loads (lb)
Vert: 13=2(F=1, B=1)


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | CJ5 | Diagonal Hip Girder | 1 | 1 | I58837505 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:05 2023 Page 1
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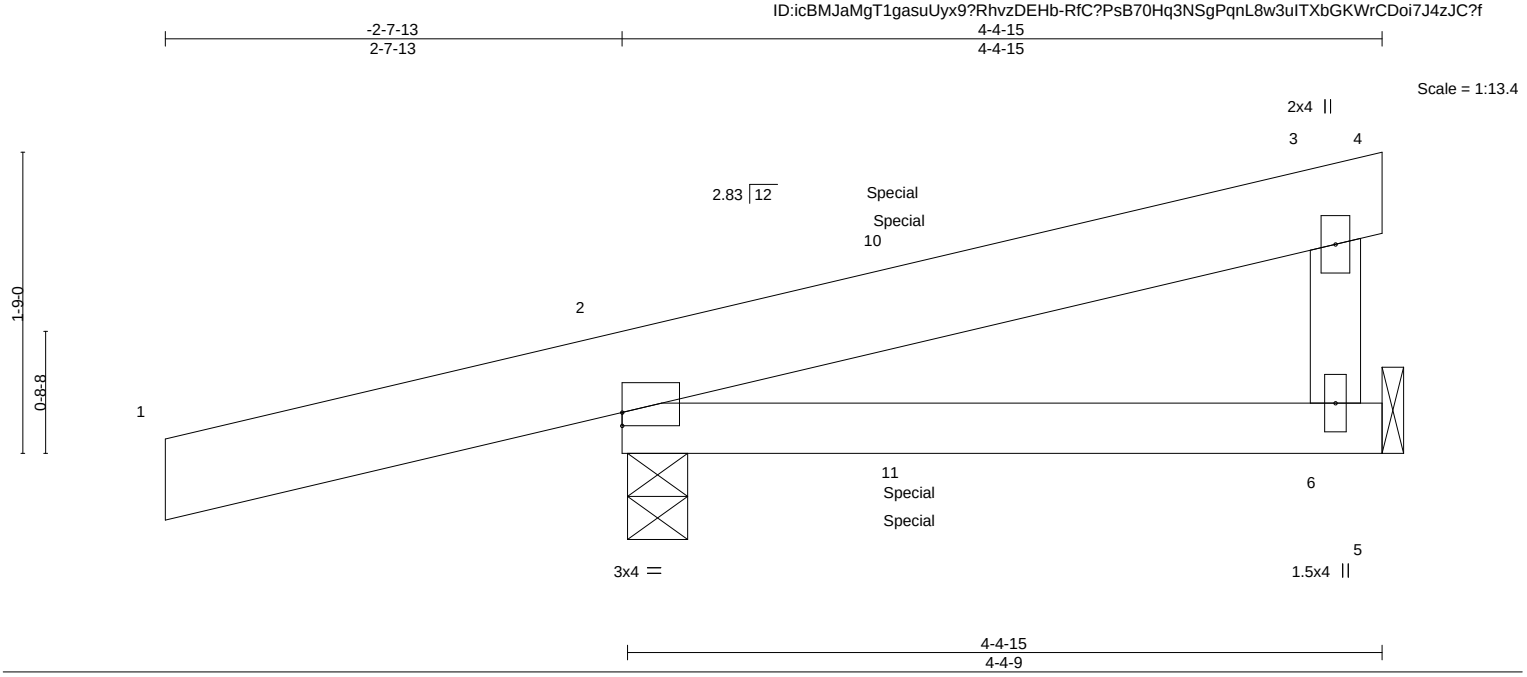


Plate Offsets (X,Y)-- [2:0-0-0,0-0-15]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.25 | Vert(LL) | 0.01 | 6-9 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.11 | Vert(CT) | 0.01 | 6-9 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MP | | | | | | | Weight: 19 lb | FT = 20% |

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

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

**REACTIONS.** (size) 6=Mechanical, 2=0-4-3
Max Horz 2=58(LC 7)
Max Uplift 6=-24(LC 8), 2=-158(LC 4)
Max Grav 6=117(LC 37), 2=388(LC 1)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 6 and 158 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 81 lb down and 170 lb up at 1-8-1, and 14 lb down and 27 lb up at 1-8-1 on top chord, and 11 lb down and 63 lb up at 1-8-1, and 8 lb down and 0 lb up at 1-8-1 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-20, 5-7=-20
Concentrated Loads (lb)
Vert: 10=48(B) 11=24(F=-8, B=32)


June 12,2023




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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | CJ6 | Diagonal Hip Girder | 1 | 1 | I58837506 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:06 2023 Page 1
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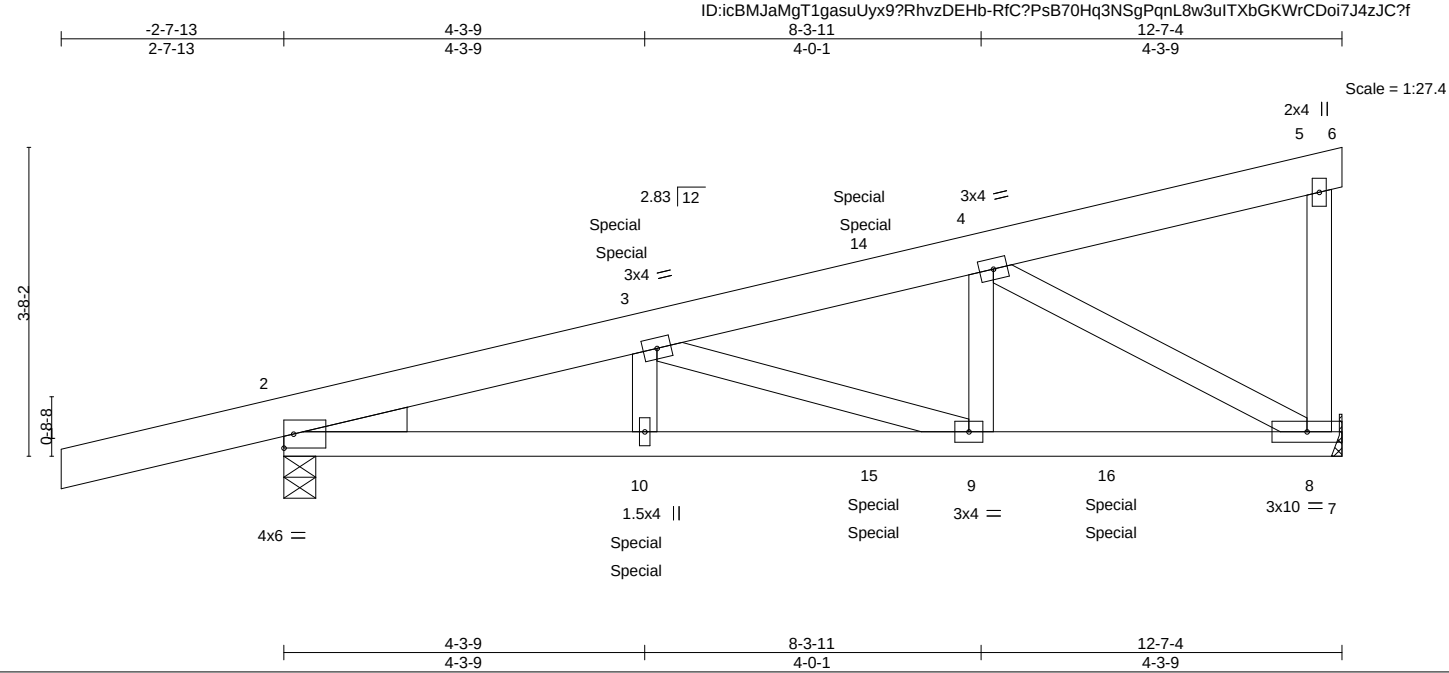


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.49 | Vert(LL) | -0.06 | 8-9 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.88 | Vert(CT) | -0.12 | 8-9 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.52 | Horz(CT) | 0.03 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 60 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-4-9, 8=Mechanical
Max Horz 2=114(LC 7)
Max Uplift 2=-232(LC 4), 8=-189(LC 8)
Max Grav 2=923(LC 1), 8=1042(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1501/243, 3-4=-1348/243
BOT CHORD 2-10=-260/1397, 9-10=-260/1397, 8-9=-236/1296
WEBS 4-9=-71/579, 4-8=-1429/281

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 232 lb uplift at joint 2 and 189 lb uplift at joint 8.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 21 lb down and 35 lb up at 4-2-8, 21 lb down and 35 lb up at 4-2-8, and 49 lb down and 72 lb up at 7-0-7, and 49 lb down and 72 lb up at 7-0-7 on top chord, and 12 lb down at 4-2-8, 12 lb down at 4-2-8, 32 lb down at 7-0-7, 32 lb down at 7-0-7, and 263 lb down and 86 lb up at 9-10-6, and 263 lb down and 86 lb up at 9-10-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 5-6=-20, 7-11=-20
Concentrated Loads (lb)
Vert: 10=-1(F=-1, B=-1) 14=-78(F=-39, B=-39) 15=-54(F=-27, B=-27) 16=-526(F=-263, B=-263)


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | CJ7 | Jack-Open | 1 | 1 | I58837507 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:07 2023 Page 1
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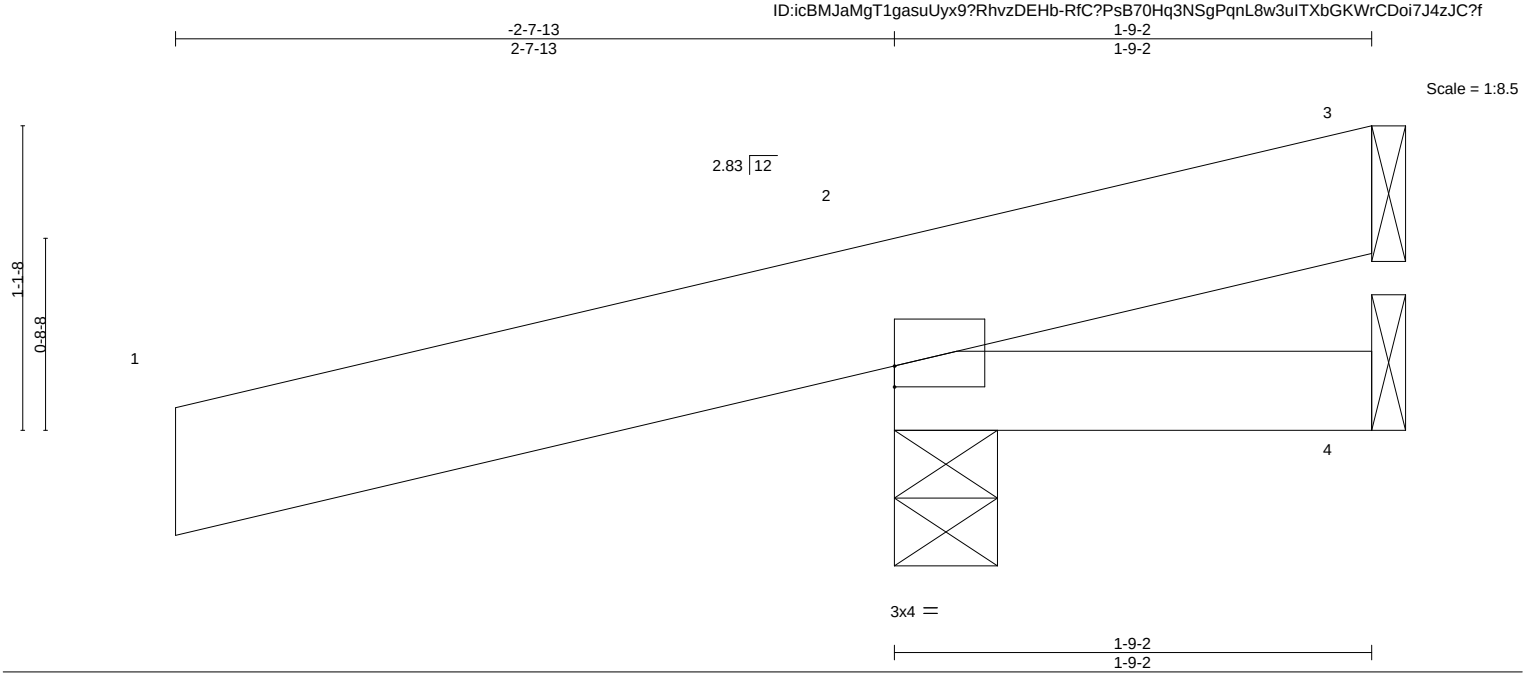


Plate Offsets (X,Y)-- [2:0-0-0,0-0-15]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.22 | Vert(LL) | 0.00 | 7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | 0.00 | 7 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MP | | | | | | | Weight: 10 lb | FT = 20% |

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

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

**REACTIONS.** (size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=46(LC 8)
Max Uplift 3=-50(LC 1), 2=-181(LC 8), 4=-12(LC 1)
Max Grav 3=36(LC 8), 2=405(LC 1), 4=19(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 3, 181 lb uplift at joint 2 and 12 lb uplift at joint 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | CJ8 | Diagonal Hip Girder | 1 | 1 | I58837508 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:08 2023 Page 1
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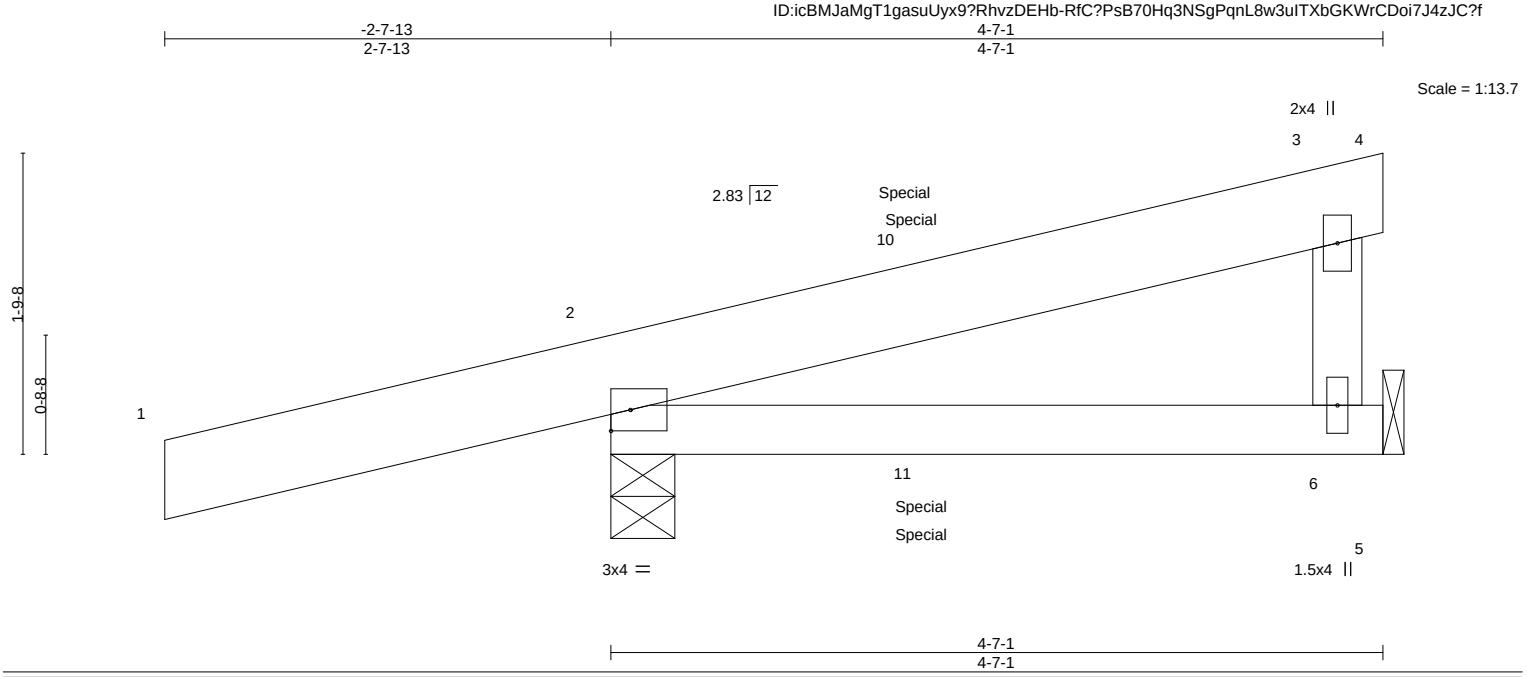


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.31 | Vert(LL) | 0.02 | 6-9 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.23 | Vert(CT) | 0.03 | 6-9 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.01 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 20 lb | FT = 20% |

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

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

**REACTIONS.** (size) 6=Mechanical, 2=0-4-9
Max Horz 2=60(LC 7)
Max Uplift 6=-31(LC 21), 2=-151(LC 4)
Max Grav 6=119(LC 37), 2=354(LC 1)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 6 and 151 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 73 lb down and 152 lb up at 1-10-3, and 73 lb down and 152 lb up at 1-10-3 on top chord, and 11 lb down and 58 lb up at 1-10-3, and 11 lb down and 58 lb up at 1-10-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-20, 5-7=-20
Concentrated Loads (lb)
Vert: 10=86(F=43, B=43) 11=59(F=30, B=30)


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | CJ9 | Jack-Open | 2 | 1 | I58837509 |
| | | | | | Job Reference (optional) |

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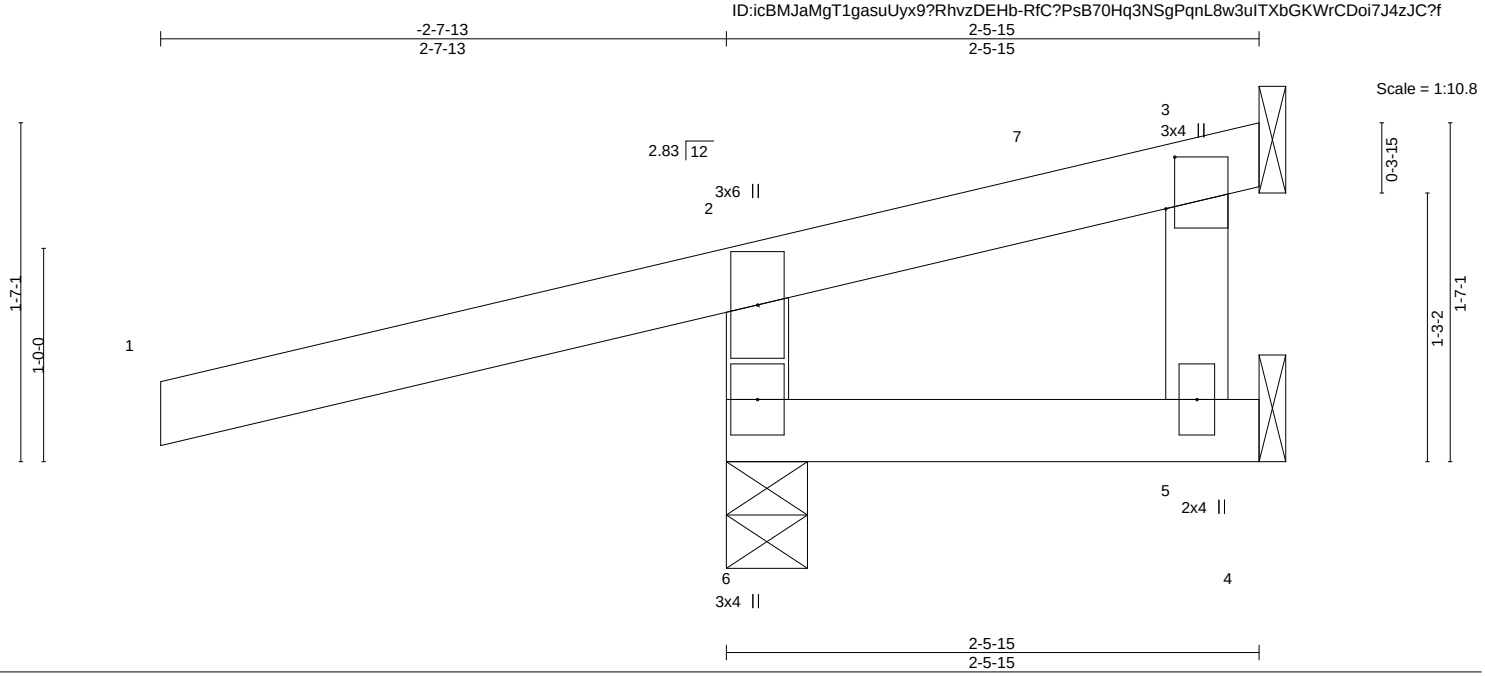


Plate Offsets (X,Y)-- [3:0-2-15,0-0-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.55 | Vert(LL) | 0.00 | 5-6 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.18 | Vert(CT) | 0.00 | 5-6 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.02 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MP | | | | | | | Weight: 11 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-5-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 6=0-4-9, 5=Mechanical, 3=Mechanical
Max Horz 6=37(LC 11)
Max Uplift 6=-177(LC 8), 5=-17(LC 25), 3=-68(LC 25)
Max Grav 6=421(LC 1), 5=40(LC 3), 3=18(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-361/340

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-7-13 to 1-7-1, Exterior(2R) 1-7-1 to 2-2-7 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 177 lb uplift at joint 6, 17 lb uplift at joint 5 and 68 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | CJ10 | Jack-Open | 2 | 1 | I58837510 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:00 2023 Page 1
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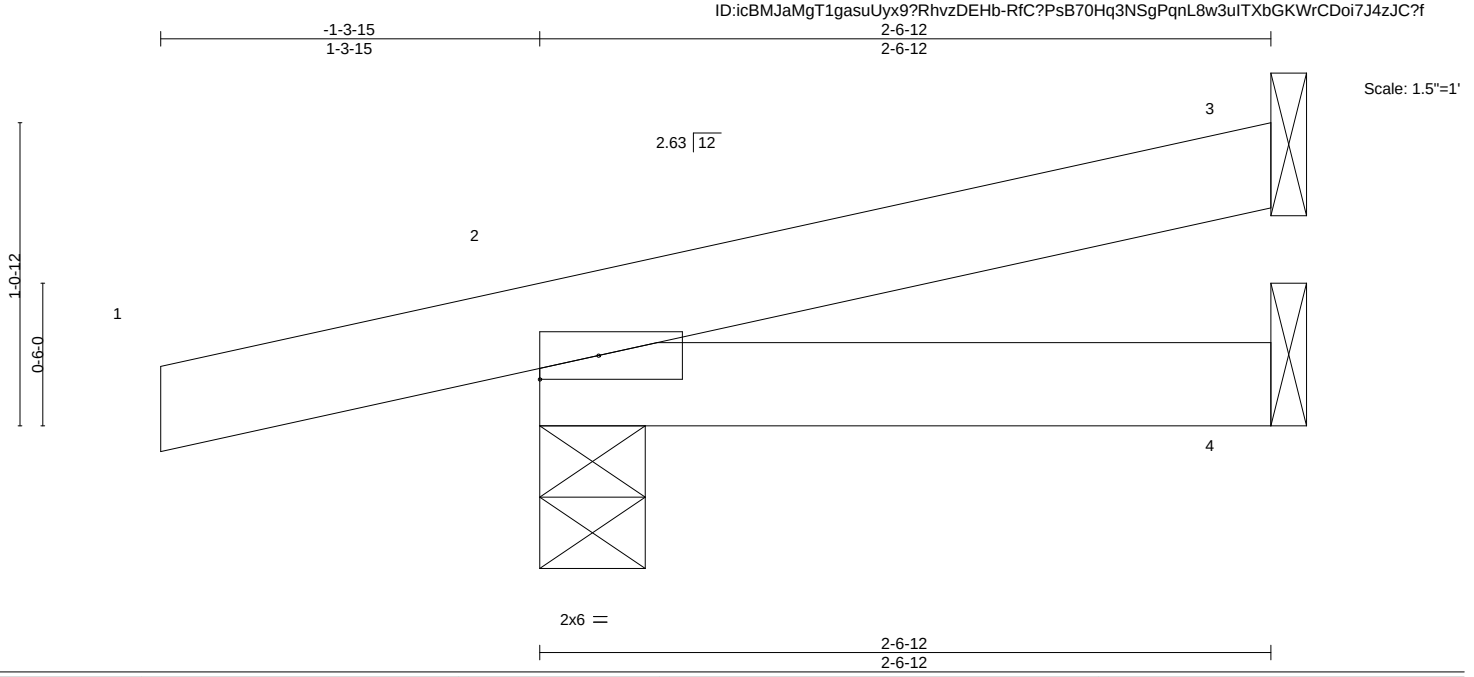


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.11 | Vert(LL) | -0.00 | 7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | -0.00 | 4-7 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 8 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-4-7, 4=Mechanical
Max Horz 2=34(LC 8)
Max Uplift 3=-23(LC 12), 2=-78(LC 8)
Max Grav 3=64(LC 1), 2=230(LC 1), 4=42(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 3 and 78 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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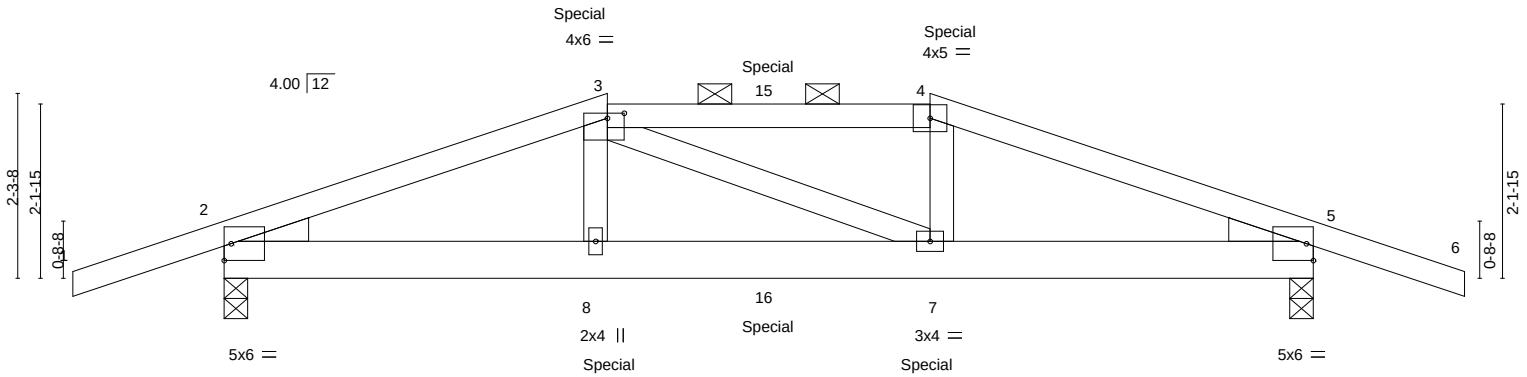
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | D1 | Hip Girder | 1 | 1 | I58837511 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:10 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-10-8 | 4-9-0 | 8-9-0 | 13-6-0 | 15-4-8
1-10-8 | 4-9-0 | 4-0-0 | 4-9-0 | 1-10-8

Scale = 1:28.6




4-9-0 | 8-9-0 | 13-6-0
4-9-0 | 4-0-0 | 4-9-0

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

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.55 | Vert(LL) | -0.08 | 7-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.78 | Vert(CT) | -0.14 | 7-8 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.07 | Horz(CT) | 0.03 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MS | | | | | | | Weight: 56 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-8-12 oc purlins, except
2-0-0 oc purlins (3-9-5 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 5=0-3-8
Max Horz 2=-36(LC 26)
Max Uplift 2=-260(LC 4), 5=-260(LC 5)
Max Grav 2=1108(LC 1), 5=1108(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1988/371, 3-4=-1810/369, 4-5=-1980/369
BOT CHORD 2-8=-319/1836, 7-8=-320/1817, 5-7=-305/1828
WEBS 3-8=0/300, 4-7=0/297

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 260 lb uplift at joint 2 and 260 lb uplift at joint 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 85 lb down and 62 lb up at 4-9-0, and 62 lb down and 54 lb up at 6-9-0, and 85 lb down and 62 lb up at 8-9-0 on top chord, and 260 lb down and 77 lb up at 4-9-0, and 40 lb down at 6-9-0, and 260 lb down and 77 lb up at 8-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 9-12=-20

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

June 12,2023

Continued on page 2



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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

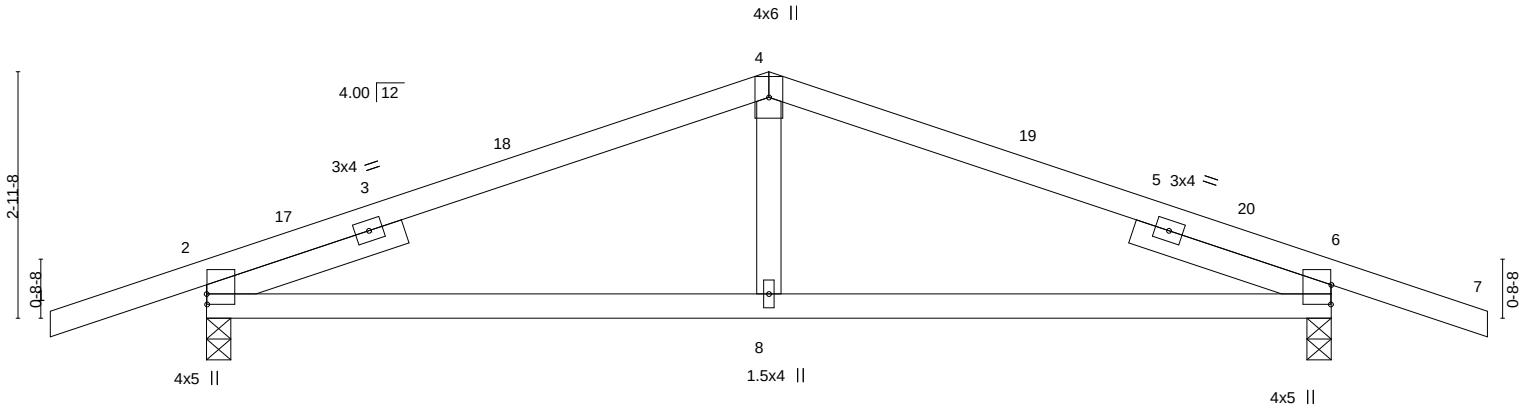
Vert: 3=-62(F) 4=-62(F) 8=-260(F) 7=-260(F) 15=-62(F) 16=-33(F)

| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | D2 | Common | 2 | 1 | I58837512 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:12 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-10-8 / 1-10-8 | 6-9-0 / 6-9-0 | 13-6-0 / 6-9-0 | 15-4-8 / 1-10-8

Scale = 1:27.7




6-9-0 / 6-9-0 | 13-6-0 / 6-9-0

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

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.37 | Vert(LL) | -0.05 | 8-15 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.34 | Vert(CT) | -0.08 | 8-15 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.02 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-AS | | | | | | | Weight: 45 lb | FT = 20% |

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

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

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-46(LC 13)
Max Uplift 2=-160(LC 8), 6=-160(LC 9)
Max Grav 2=739(LC 1), 6=739(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-862/264, 4-6=-862/264
BOT CHORD 2-8=-148/813, 6-8=-148/813
WEBS 4-8=0/264

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-9-0, Exterior(2R) 6-9-0 to 9-9-0, Interior(1) 9-9-0 to 15-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 160 lb uplift at joint 2 and 160 lb uplift at joint 6.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | E1 | Hip Girder | 1 | 2 | I58837513 |
| | | | | | Job Reference (optional) |

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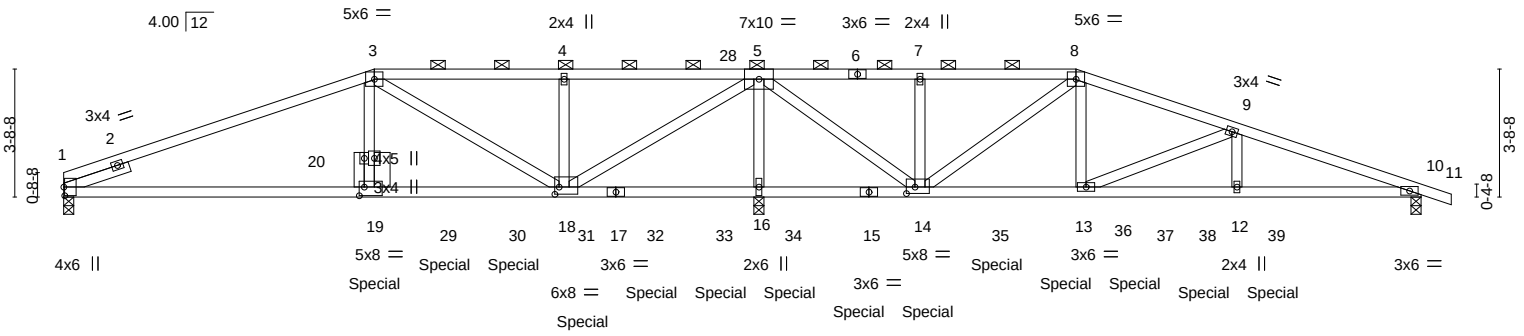
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| 4-7-12 | 9-0-0 | 14-6-0 | 20-1-12 | 24-9-12 | 29-4-0 | 33-11-15 | 39-4-0 | 40-2-8 |
|---|---|---|---|---|---|---|---|---|
| 4-7-12 | 4-4-4 | 5-6-0 | 5-7-12 | 4-8-0 | 4-6-4 | 4-7-15 | 5-4-1 | 0-10-8 |

Scale = 1:66.8




| 4-7-12 | 9-0-0 | 14-6-0 | 20-1-12 | 24-9-12 | 29-4-0 | 33-11-15 | 39-4-0 |
|---|---|---|---|---|---|---|---|
| 4-7-12 | 4-4-4 | 5-6-0 | 5-7-12 | 4-8-0 | 4-6-4 | 4-7-15 | 5-4-1 |

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

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.91 | Vert(LL) | -0.15 | 18-19 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.93 | Vert(CT) | -0.26 | 18-19 | >943 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.74 | Horz(CT) | 0.03 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 302 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 *Except* |
| | 15-17: 2x4 SP 2400F 2.0E |
| WEBS | 2x4 SPF No.2 *Except* |
| | 19-20: 2x6 SPF No.2 |
| SLIDER | Left 2x4 SPF No.2 2-0-0 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except |
| | 2-0-0 oc purlins (6-0-0 max.): 3-8. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing, Except: |
| | 5-8-9 oc bracing: 16-18 |
| | 5-10-1 oc bracing: 14-16. |

**REACTIONS.** (size) 1=0-3-8, 16=0-3-8, 10=0-3-8
Max Horz 1=-69(LC 9)
Max Uplift 1=-317(LC 8), 16=-1581(LC 5), 10=-329(LC 5)
Max Grav 1=1449(LC 21), 16=7028(LC 1), 10=1518(LC 1)

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

| | |
|---|---|
| TOP CHORD | 1-3=-3085/728, 3-4=-817/331, 4-5=-817/331, 5-7=-267/550, 7-8=-267/550, |
| | 8-9=-1745/457, 9-10=-3624/799 |
| BOT CHORD | 1-19=-646/2838, 18-19=-640/2805, 16-18=-4239/971, 14-16=-4239/971, 13-14=-306/1532, |
| | 12-13=-706/3403, 10-12=-706/3403 |
| WEBS | 3-19=-314/1775, 3-18=-2411/471, 4-18=-423/144, 5-18=-1218/5503, 5-16=-5914/1360, |
| | 5-14=-1022/4573, 7-14=-307/128, 8-14=-2480/515, 8-13=-335/1692, 9-13=-1951/417, |
| | 9-12=-142/989 |

**NOTES-**

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-2-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 317 lb uplift at joint 1, 1581 lb uplift at joint 16 and 329 lb uplift at joint 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.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Continued on page 2



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**NOTES-**

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1383 lb down and 328 lb up at 9-0-0, 370 lb down and 111 lb up at 11-0-12, 370 lb down and 111 lb up at 13-0-12, 370 lb down and 111 lb up at 15-0-12, 370 lb down and 111 lb up at 17-0-12, 370 lb down and 111 lb up at 19-0-12, 370 lb down and 111 lb up at 21-0-12, 370 lb down and 111 lb up at 23-0-12, 370 lb down and 111 lb up at 25-0-12, 370 lb down and 111 lb up at 27-0-12, 370 lb down and 111 lb up at 29-0-12, 365 lb down and 92 lb up at 31-0-12, and 365 lb down and 89 lb up at 33-0-12, and 552 lb down and 122 lb up at 35-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-8=-70, 8-11=-70, 21-25=-20
   Concentrated Loads (lb)
   Vert: 19=-1383(F) 14=-370(F) 15=-370(F) 29=-370(F) 30=-370(F) 31=-370(F) 32=-370(F) 33=-370(F) 34=-370(F) 35=-370(F) 36=-370(F) 37=-365(F) 38=-365(F) 39=-552(F)

| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | E2 | Roof Special Girder | 1 | 1 | I58837514 |
| | | | | | Job Reference (optional) |

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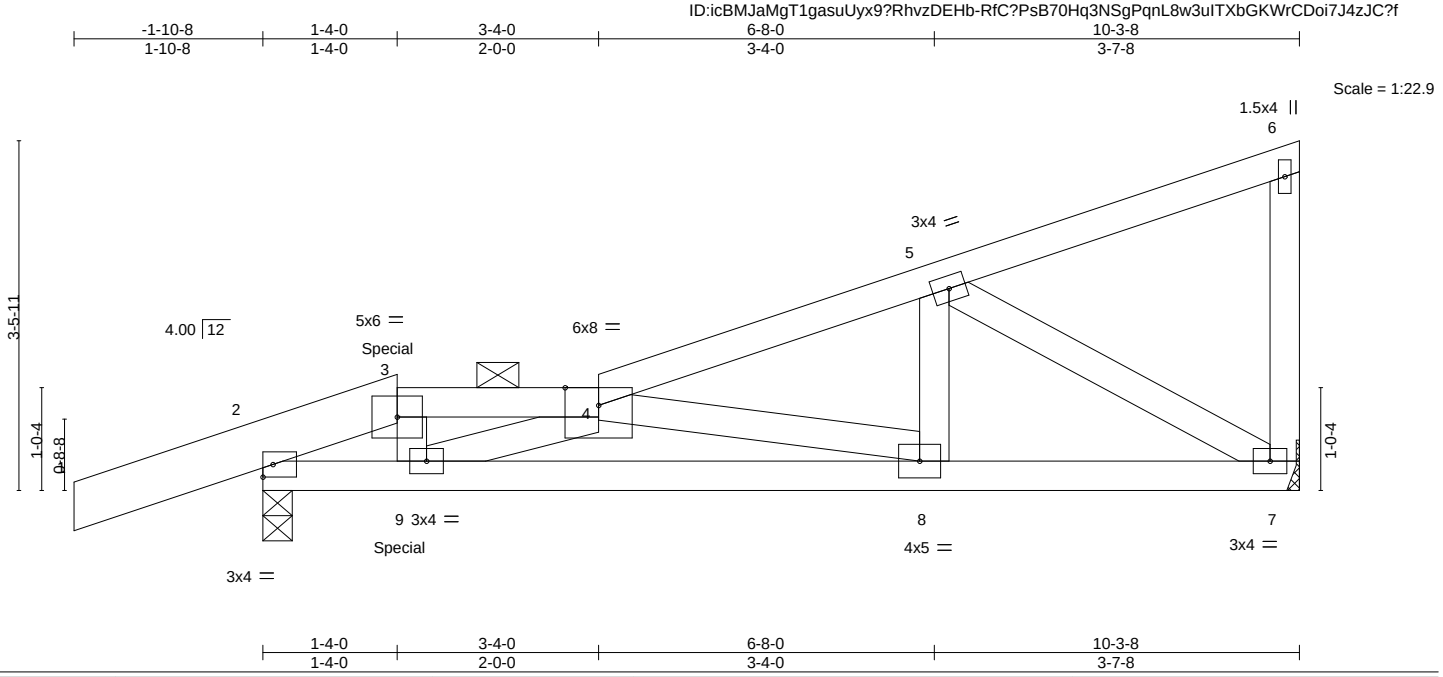
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.18 | Vert(LL) | -0.03 | 8-9 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.38 | Vert(CT) | -0.06 | 8-9 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.18 | Horz(CT) | 0.01 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 44 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2 *Except* 1-3: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

**REACTIONS.** (size) 7=Mechanical, 2=0-3-8
Max Horz 2=132(LC 7)
Max Uplift 7=-84(LC 8), 2=-123(LC 4)
Max Grav 7=435(LC 1), 2=538(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-642/22, 3-4=-603/26, 4-5=-611/84
BOT CHORD 2-9=-78/494, 8-9=-192/1056, 7-8=-84/555
WEBS 3-9=-13/282, 4-8=-514/110, 5-8=0/264, 5-7=-626/126, 4-9=-658/212

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 7 and 123 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 139 lb down and 262 lb up at 1-4-0 on top chord, and 41 lb down and 44 lb up at 1-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 3=71(F)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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | E3 | Roof Special | 1 | 1 | I58837515 |
| | | | | | Job Reference (optional) |

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ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

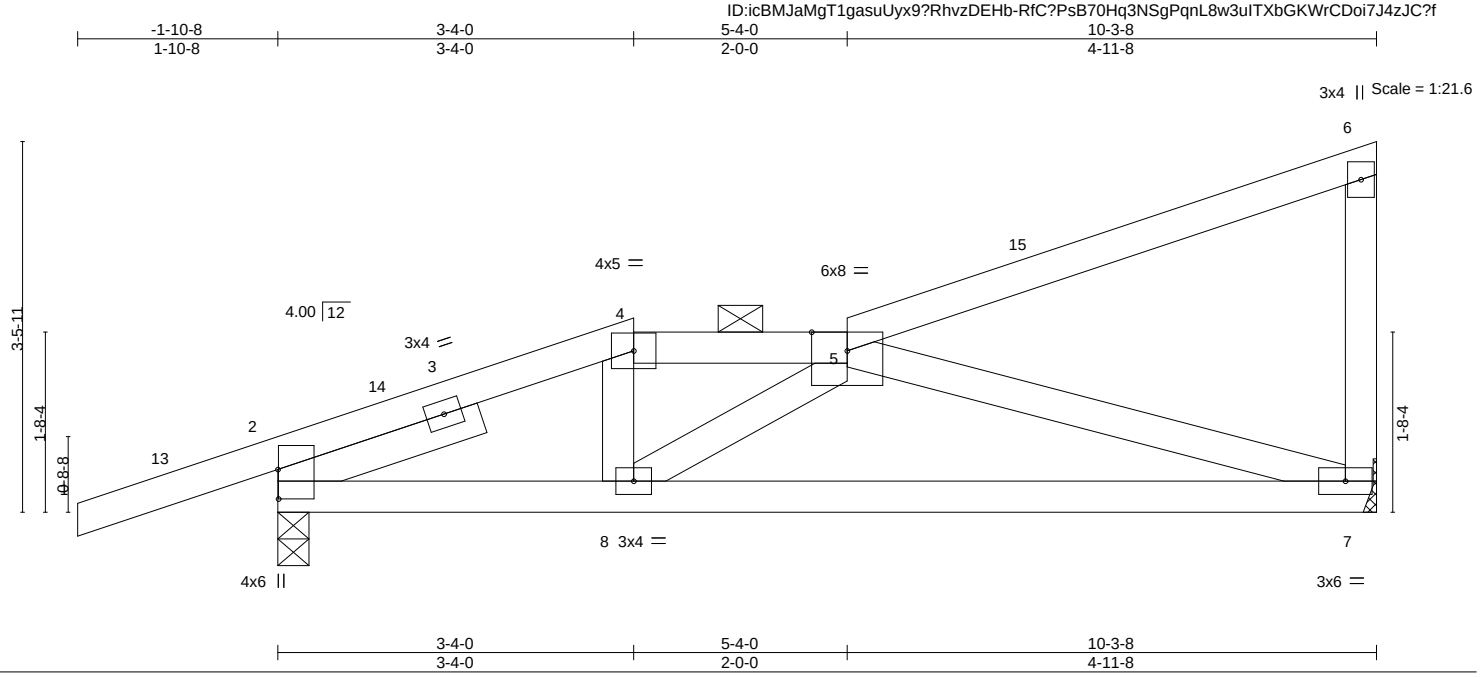


Plate Offsets (X,Y)-- [2:0-3-5,0-0-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.24 | Vert(LL) | -0.07 | 7-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.37 | Vert(CT) | -0.14 | 7-8 | >883 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.35 | Horz(CT) | 0.01 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 42 lb | FT = 20% |

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

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

**REACTIONS.** (size) 7=Mechanical, 2=0-3-8
Max Horz 2=131(LC 11)
Max Uplift 7=-88(LC 12), 2=-149(LC 8)
Max Grav 7=444(LC 1), 2=600(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-713/135, 4-5=-635/145
BOT CHORD 2-8=-293/653, 7-8=-320/768
WEBS 5-7=-754/286

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-4-0, Exterior(2E) 3-4-0 to 5-4-0, Interior(1) 5-4-0 to 10-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 7 and 149 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023



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Chesterfield, MO 63017
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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | E4 | Half Hip Girder | 1 | 1 | I58837516 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:18 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

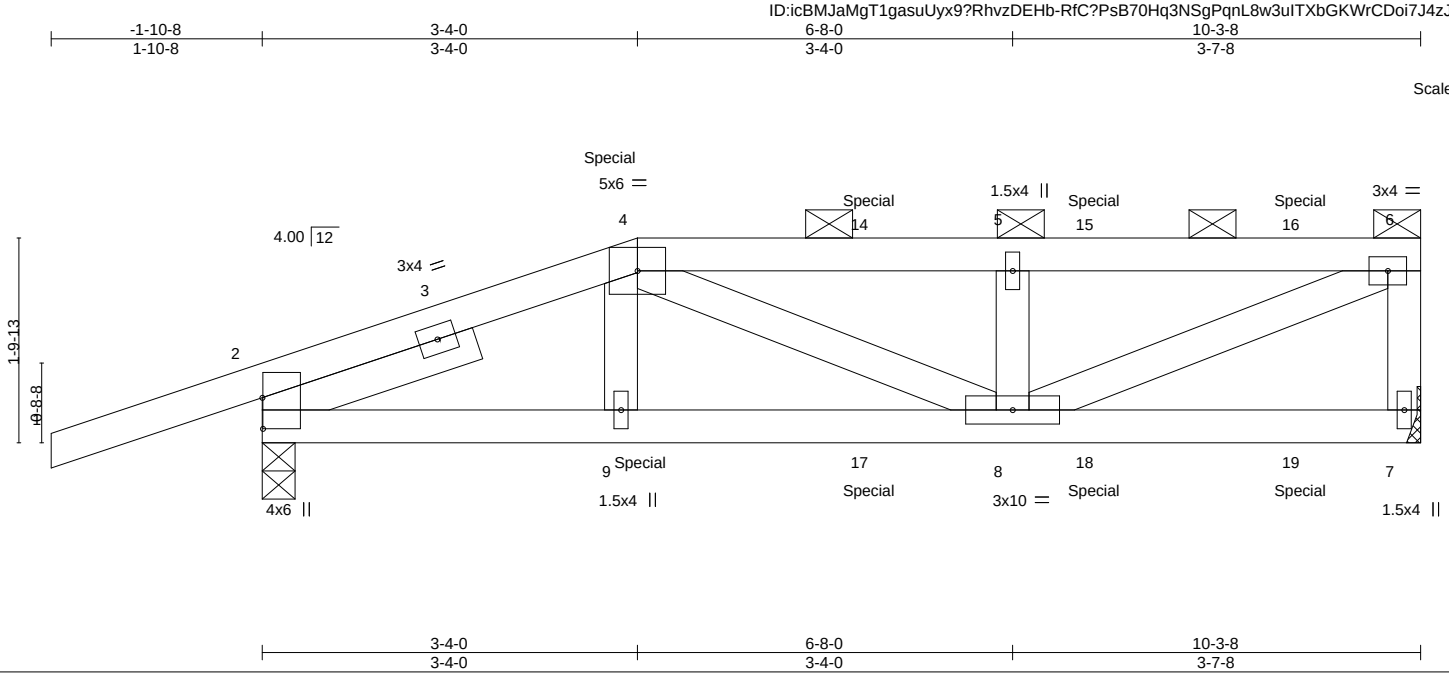


Plate Offsets (X,Y)-- [2:0-3-5,0-0-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.27 | Vert(LL) | -0.02 | 8-9 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.36 | Vert(CT) | -0.04 | 8-9 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.21 | Horz(CT) | 0.01 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 40 lb | FT = 20% |

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

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

**REACTIONS.** (size) 7=Mechanical, 2=0-3-8
Max Horz 2=67(LC 7)
Max Uplift 7=-102(LC 5), 2=-179(LC 4)
Max Grav 7=518(LC 1), 2=676(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-841/165, 4-5=-837/175, 5-6=-837/175, 6-7=-471/115
BOT CHORD 2-9=-168/769, 8-9=-170/760
WEBS 5-8=-293/114, 6-8=-175/871

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 7 and 179 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 33 lb down and 38 lb up at 3-4-0, 30 lb down and 38 lb up at 5-4-12, and 30 lb down and 37 lb up at 7-4-12, and 30 lb down and 39 lb up at 9-2-12 on top chord, and 103 lb down and 44 lb up at 3-4-0, 19 lb down at 5-4-12, and 19 lb down at 7-4-12, and 19 lb down at 9-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-6=-70, 7-10=-20


June 12,2023

Continued on page 2



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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 9=-78(B) 4=-9(B) 14=-9(B) 15=-9(B) 16=-12(B) 17=-10(B) 18=-10(B) 19=-11(B)

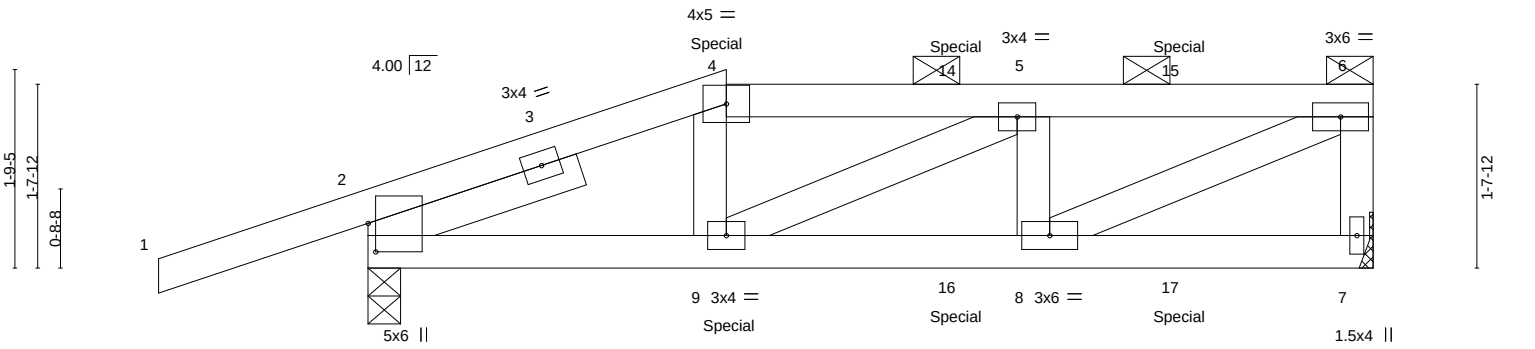
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | F1 | Half Hip Girder | 1 | 1 | I58837517 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:19 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

| -1-10-8 | 3-2-8 | 5-11-8 | 9-0-0 |
|---|---|---|---|
| 1-10-8 | 3-2-8 | 2-9-0 | 3-0-8 |

Scale = 1:20.6




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

Plate Offsets (X,Y)-- [2:0-3-1,0-0-13]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.27 | Vert(LL) | -0.02 | 8-9 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.45 | Vert(CT) | -0.04 | 8-9 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.25 | Horz(CT) | 0.01 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MS | | | | | | | Weight: 36 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 5-9-14 oc purlins, except end verticals, and 2-0-0 oc purlins (5-10-10 max.): 4-6. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (size) 7=Mechanical, 2=0-3-8
Max Horz 2=60(LC 7)
Max Uplift 7=-101(LC 5), 2=-183(LC 4)
Max Grav 7=572(LC 1), 2=707(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-927/168, 4-5=-850/166, 5-6=-927/175, 6-7=-535/113
BOT CHORD 2-9=-176/860, 8-9=-178/927
WEBS 5-8=-297/121, 6-8=-185/1024

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 7 and 183 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 77 lb down and 55 lb up at 3-2-8, and 54 lb down and 55 lb up at 5-3-4, and 54 lb down and 55 lb up at 7-3-4 on top chord, and 117 lb down and 40 lb up at 3-2-8, and 36 lb down at 5-3-4, and 36 lb down at 7-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-6=-70, 7-10=-20


June 12,2023

Continued on page 2



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | F1 | Half Hip Girder | 1 | 1 | I58837517<br>Job Reference (optional) |



**LOAD CASE(S)** Standard
Concentrated Loads (lb)
Vert: 4=-54(F) 9=-117(F) 14=-54(F) 15=-54(F) 16=-36(F) 17=-36(F)



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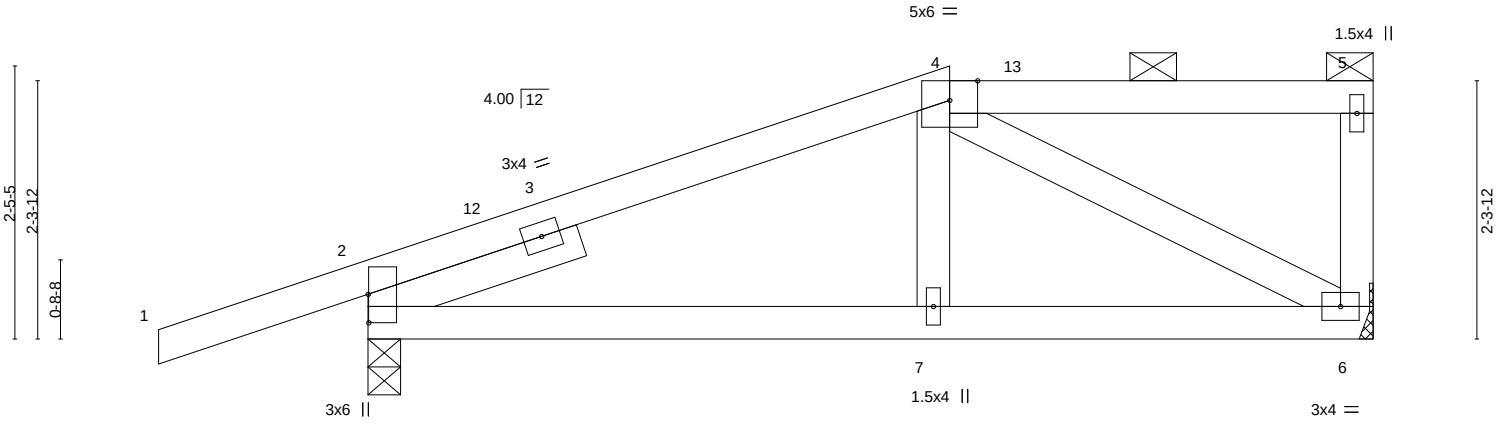
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | F2 | Half Hip | 1 | 1 | I58837518 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:20 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

Scale = 1:20.6




5-2-8 / 5-2-8 | 9-0-0 / 3-9-8

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

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.25 | Vert(LL) | 0.02 | 7-10 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.18 | Vert(CT) | -0.02 | 7-10 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.15 | Horz(CT) | -0.01 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 34 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** (size) 2=0-3-8, 6=Mechanical
Max Horz 2=87(LC 11)
Max Uplift 2=-144(LC 8), 6=-69(LC 8)
Max Grav 2=544(LC 1), 6=385(LC 1)

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

| | |
|---|---|
| TOP CHORD | 2-4=-434/153 |
| BOT CHORD | 2-7=-226/414, 6-7=-227/406 |
| WEBS | 4-6=-467/233 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 5-2-8, Exterior(2E) 5-2-8 to 8-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 2 and 69 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023



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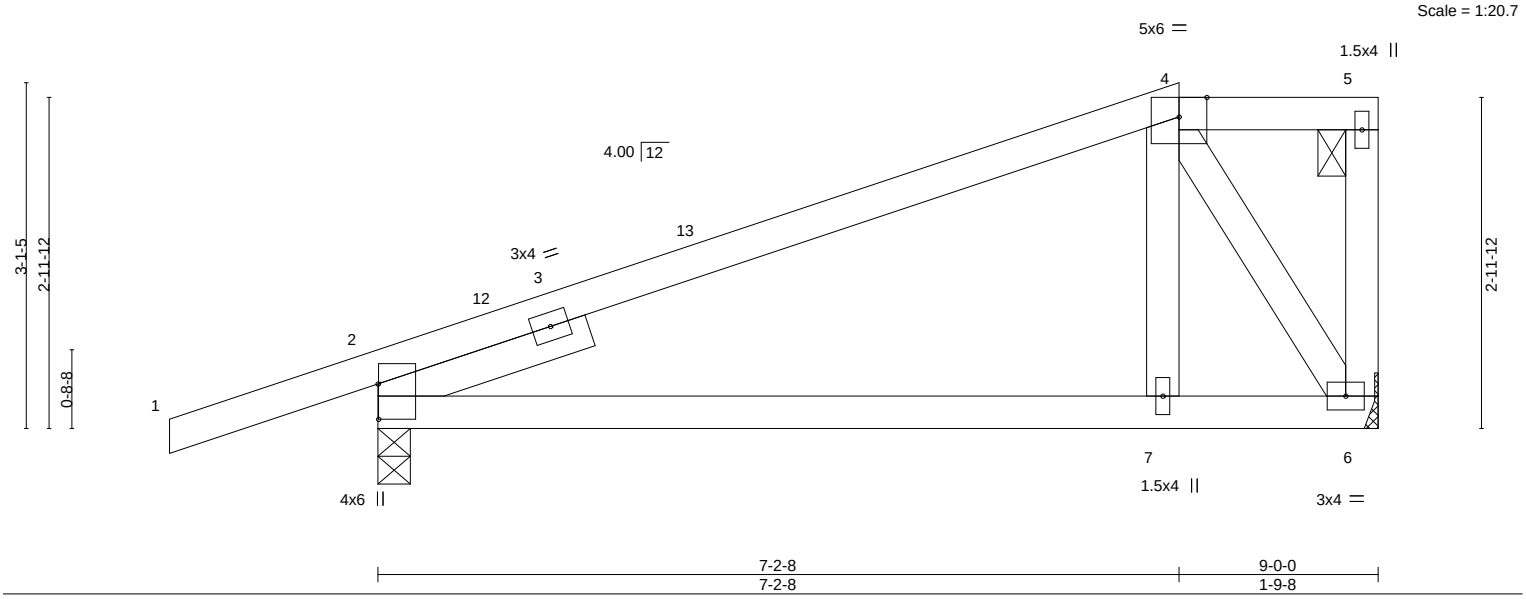
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | F3 | Half Hip | 1 | 1 | I58837519 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:21 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-10-8 / 1-10-8 | 7-2-8 / 7-2-8 | 9-0-0 / 1-9-8

Scale = 1:20.7




7-2-8 / 7-2-8 | 9-0-0 / 1-9-8

Plate Offsets (X,Y)-- [2:0-3-13,0-0-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.57 | Vert(LL) | 0.07 | 7-10 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.41 | Vert(CT) | -0.13 | 7-10 | >842 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.03 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 34 lb | FT = 20% |

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

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

**REACTIONS.** (size) 2=0-3-8, 6=Mechanical
Max Horz 2=113(LC 11)
Max Uplift 2=-141(LC 8), 6=-72(LC 8)
Max Grav 2=544(LC 1), 6=385(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-294/156
BOT CHORD 2-7=-155/252
WEBS 4-7=-34/284, 4-6=-468/236

**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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 7-2-8, Exterior(2E) 7-2-8 to 8-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 141 lb uplift at joint 2 and 72 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | F4 | Jack-Partial | 11 | 1 | I58837520 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:22 2023 Page 1

ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

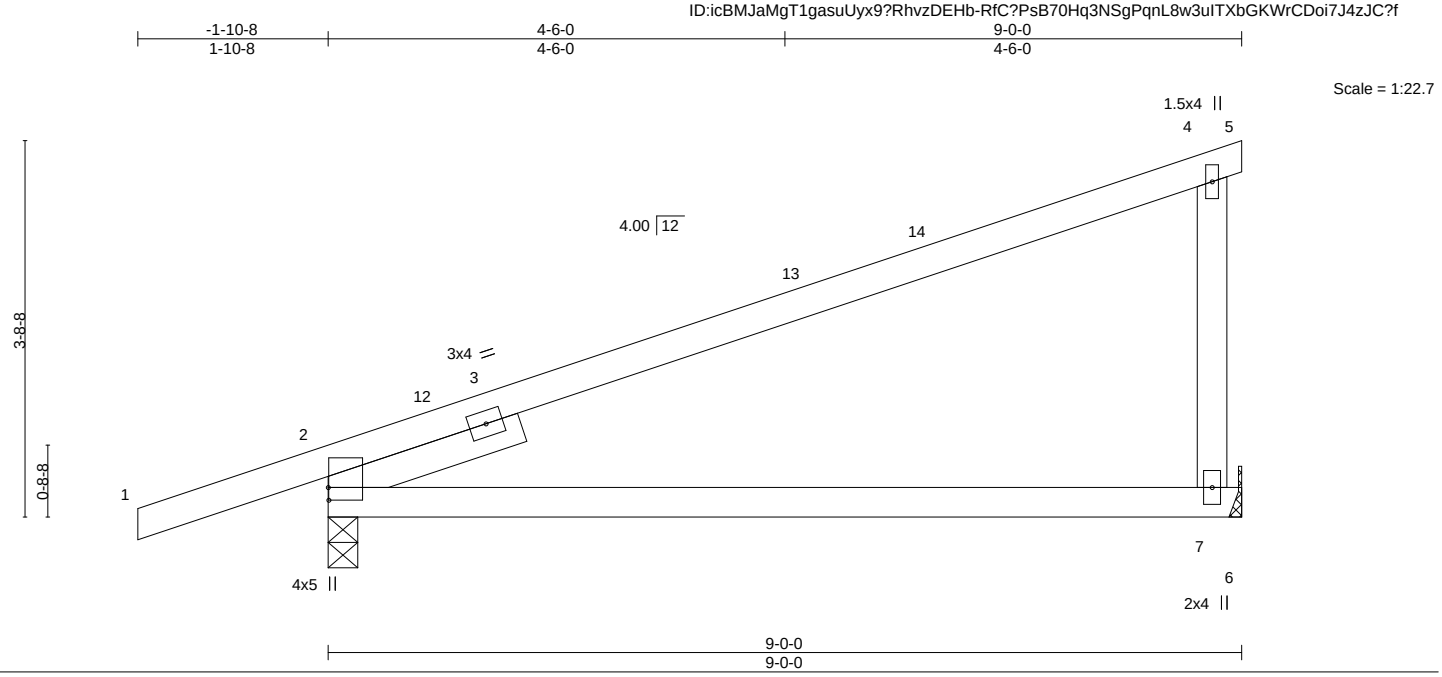


Plate Offsets (X,Y)-- [2:0-1-8,0-0-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 1.00 | Vert(LL) | -0.23 | 7-10 | >455 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.68 | Vert(CT) | -0.51 | 7-10 | >203 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.09 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-AS | | | | | | | Weight: 29 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** (size) 2=0-3-8, 7=Mechanical
Max Horz 2=140(LC 8)
Max Uplift 2=-123(LC 8), 7=-91(LC 8)
Max Grav 2=537(LC 1), 7=390(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-563/68
WEBS 4-7=-279/215

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 9-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 2 and 91 lb uplift at joint 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


June 12,2023



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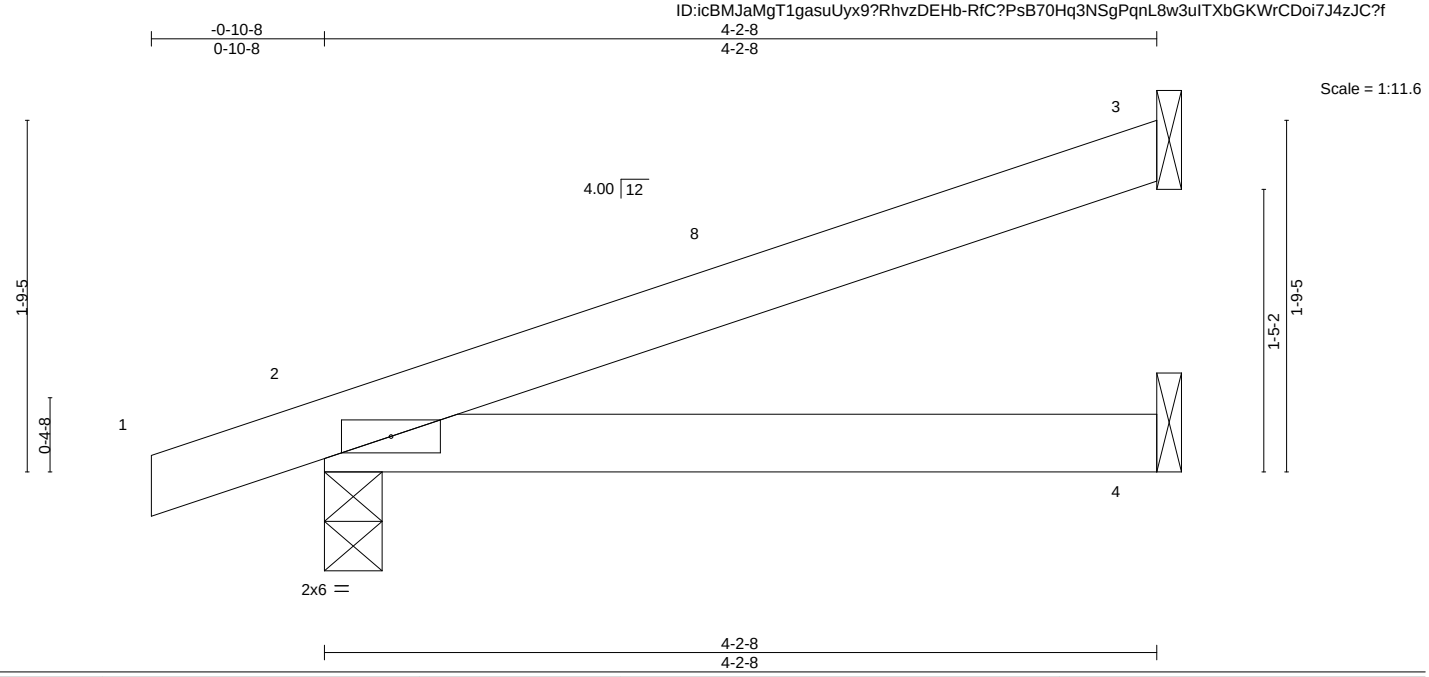
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J1 | Jack-Open | 3 | 1 | I58837521 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:23 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.21 | Vert(LL) | -0.02 | 4-7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.17 | Vert(CT) | -0.03 | 4-7 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-AS | | | | | | | Weight: 11 lb | FT = 20% |

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

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

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=65(LC 8)
Max Uplift 3=-45(LC 12), 2=-60(LC 8)
Max Grav 3=124(LC 1), 2=254(LC 1), 4=74(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 3 and 60 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


June 12,2023



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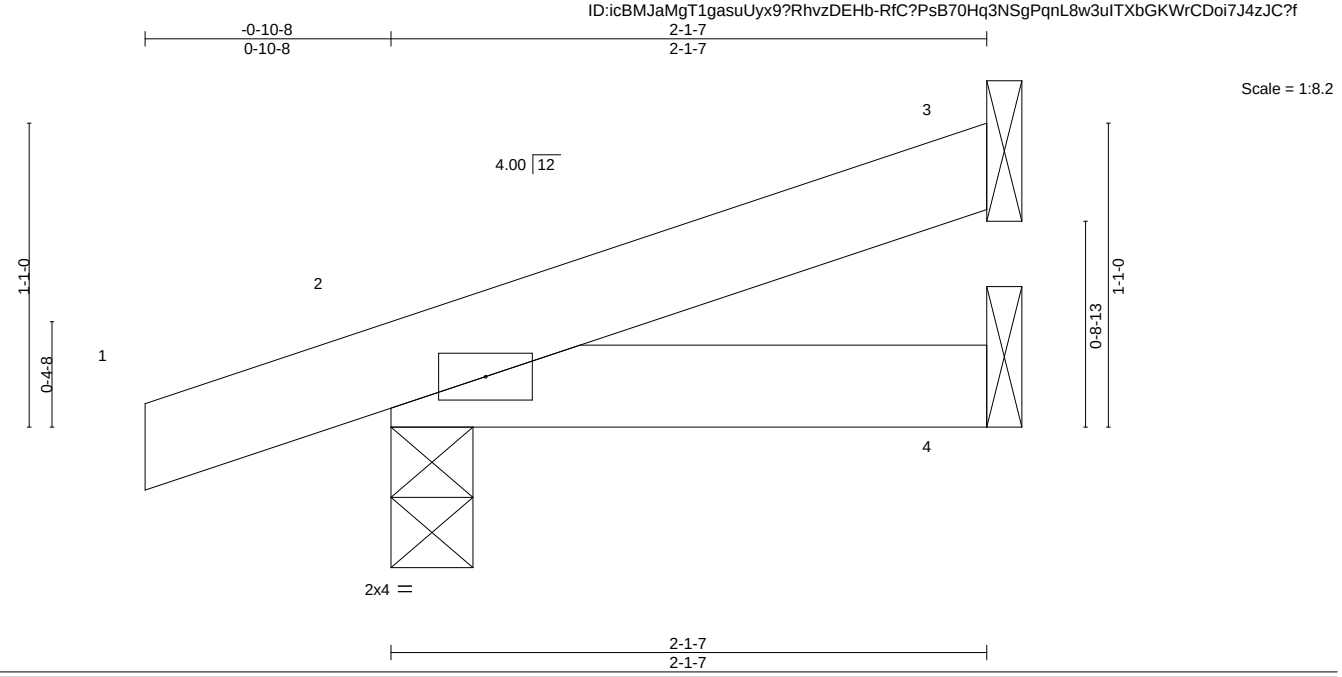
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J2 | Jack-Open | 1 | 1 | I58837522 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:34 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.05 | Vert(LL) | -0.00 | 7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 7 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 6 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-1-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=39(LC 8)
Max Uplift 3=-19(LC 12), 2=-51(LC 8)
Max Grav 3=53(LC 1), 2=167(LC 1), 4=35(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 3 and 51 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J3 | Jack-Open | 1 | 1 | I58837523 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:45 2023 Page 1
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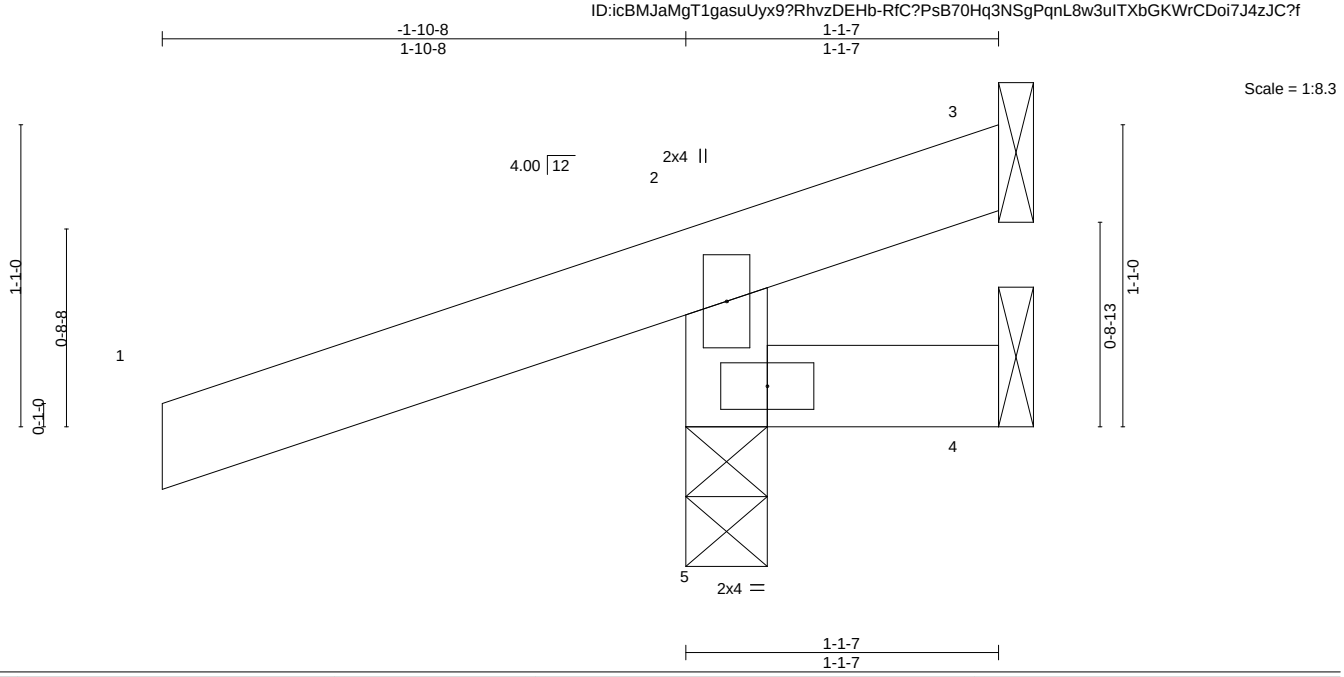


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.28 | Vert(LL) | 0.00 | 5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | 0.00 | 5 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | Weight: 5 lb | FT = 20% |

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

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

**REACTIONS.** (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=38(LC 8)
Max Uplift 3=-71(LC 1), 4=-34(LC 1), 5=-150(LC 8)
Max Grav 3=40(LC 8), 4=20(LC 8), 5=333(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-280/212

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 3, 34 lb uplift at joint 4 and 150 lb uplift at joint 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J4 | Jack-Closed | 2 | 1 | I58837524 |
| | | | | | Job Reference (optional) |

Builders First Source, Valley Center, KS 67147 — 8.630 s Nov 21 2022 MiTek Industries, Inc. Fri Jun 9 11:17:38 2023 Page 1
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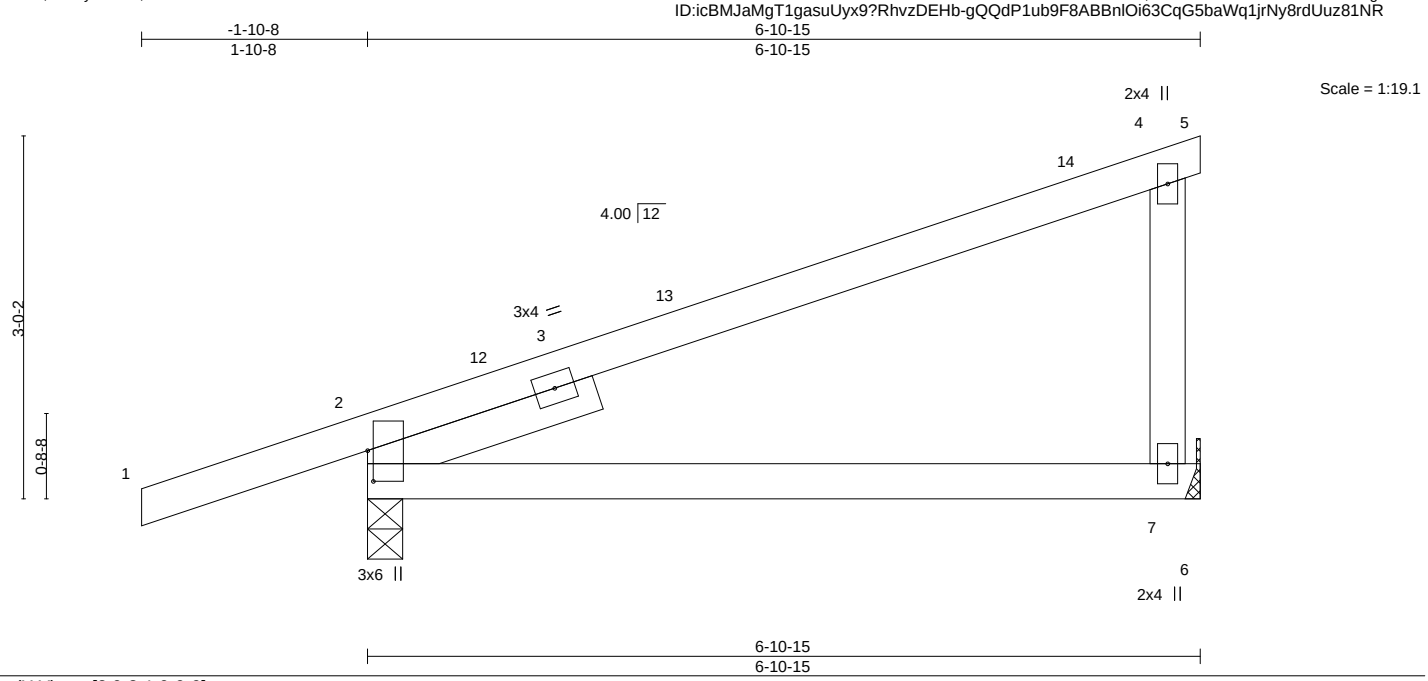


Plate Offsets (X,Y)-- [2:0-3-1,0-0-9]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.58 | Vert(LL) | 0.09 | 7-10 | >866 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.37 | Vert(CT) | -0.17 | 7-10 | >466 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.04 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 24 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Sheathed, except end verticals.
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 7=Mechanical, 2=0-3-8
Max Horz 2=113(LC 11)
Max Uplift 7=-57(LC 8), 2=-123(LC 8)
Max Grav 7=291(LC 1), 2=448(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-334/78

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-10-15 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) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=123.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J5 | Jack-Open | 2 | 1 | I58837525 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:47 2023 Page 1
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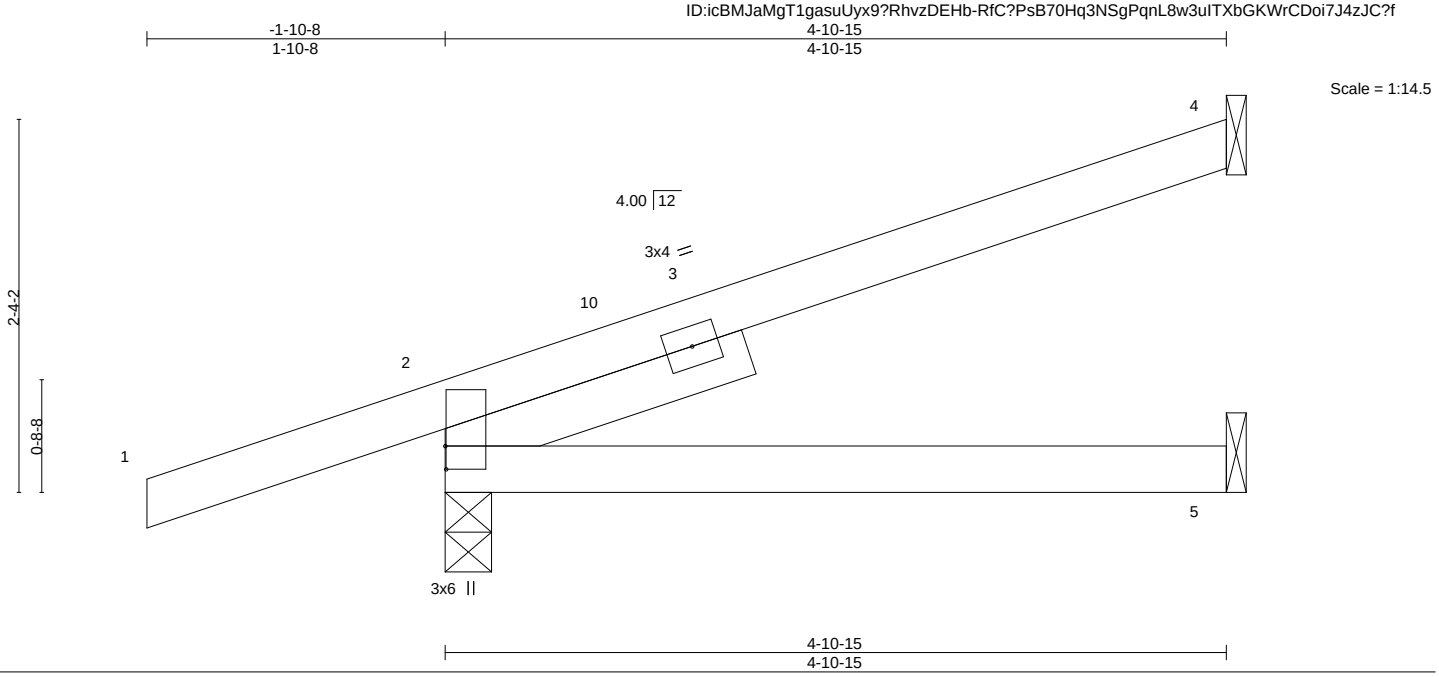


Plate Offsets (X,Y)-- [2:0-1-12,0-0-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.26 | Vert(LL) | 0.03 | 5-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.19 | Vert(CT) | -0.04 | 5-8 | >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-AS | | | | | | | Weight: 16 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=90(LC 8)
Max Uplift 4=-54(LC 12), 2=-106(LC 8)
Max Grav 4=138(LC 1), 2=375(LC 1), 5=83(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 4-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 4 and 106 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J6 | Jack-Open | 2 | 1 | I58837526 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:48 2023 Page 1
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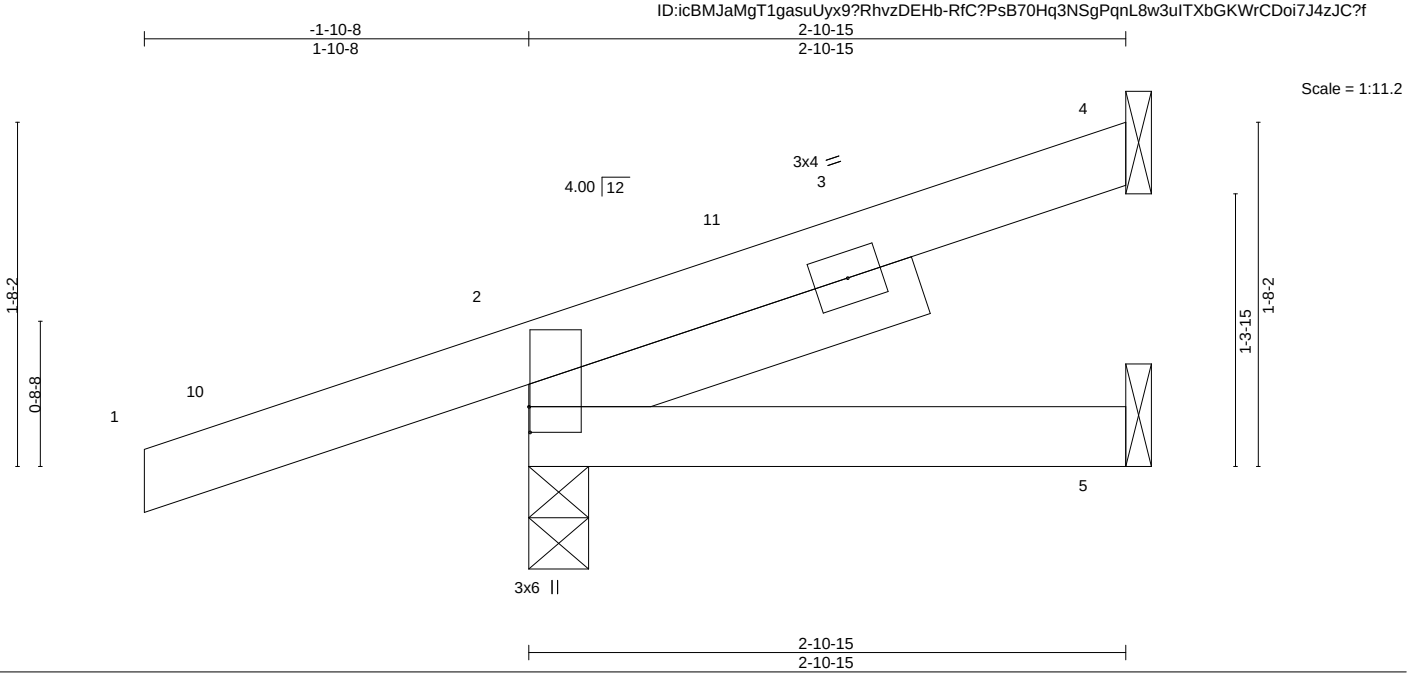


Plate Offsets (X,Y)-- [2:0-1-8,0-0-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.22 | Vert(LL) | -0.00 | 8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | -0.00 | 5-8 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MP | | | | | | | Weight: 11 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=65(LC 8)
Max Uplift 4=-28(LC 12), 2=-103(LC 8)
Max Grav 4=62(LC 1), 2=303(LC 1), 5=43(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 2-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 4 and 103 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J7 | Jack-Open | 1 | 1 | I58837527 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:49 2023 Page 1
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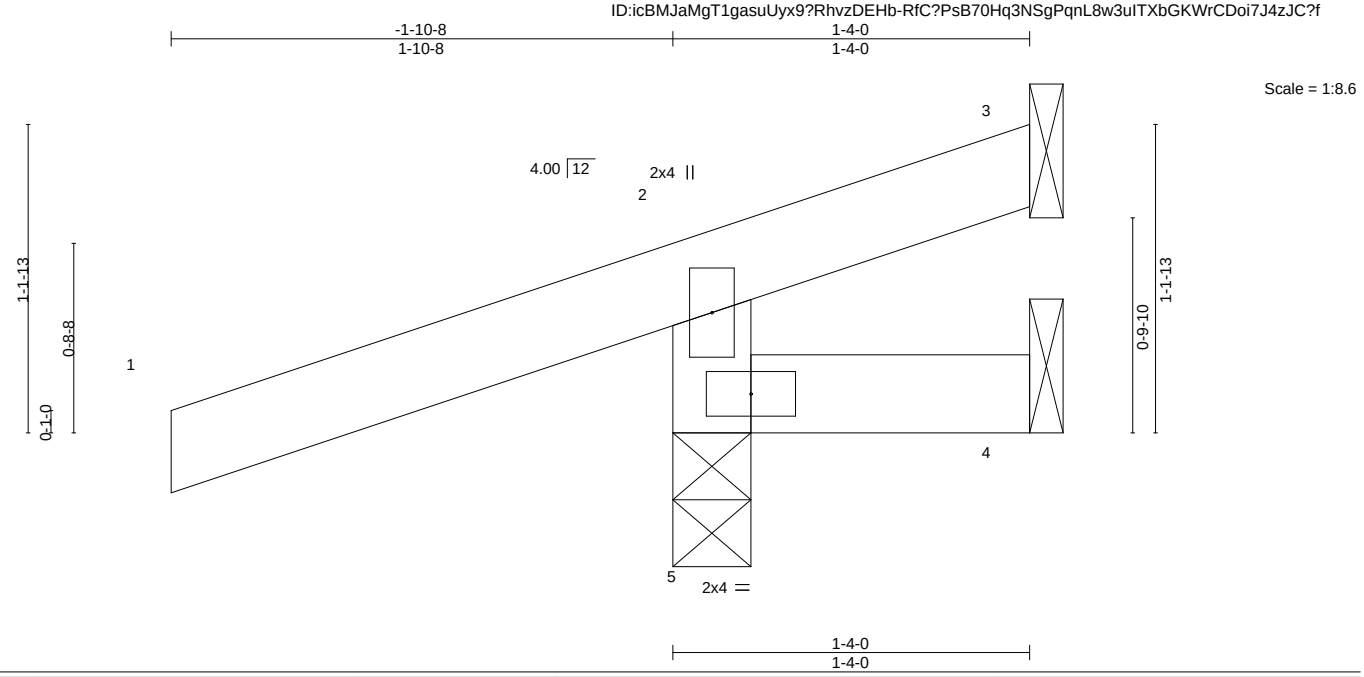


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.28 | Vert(LL) | 0.00 | 5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | 0.00 | 5 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MR | | | | | | | Weight: 6 lb | FT = 20% |

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

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

**REACTIONS.** (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=40(LC 8)
Max Uplift 3=-43(LC 1), 4=-26(LC 1), 5=-138(LC 8)
Max Grav 3=26(LC 8), 4=19(LC 8), 5=316(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-266/199

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 3, 26 lb uplift at joint 4 and 138 lb uplift at joint 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J8 | Jack-Open | 4 | 1 | I58837528 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:50 2023 Page 1
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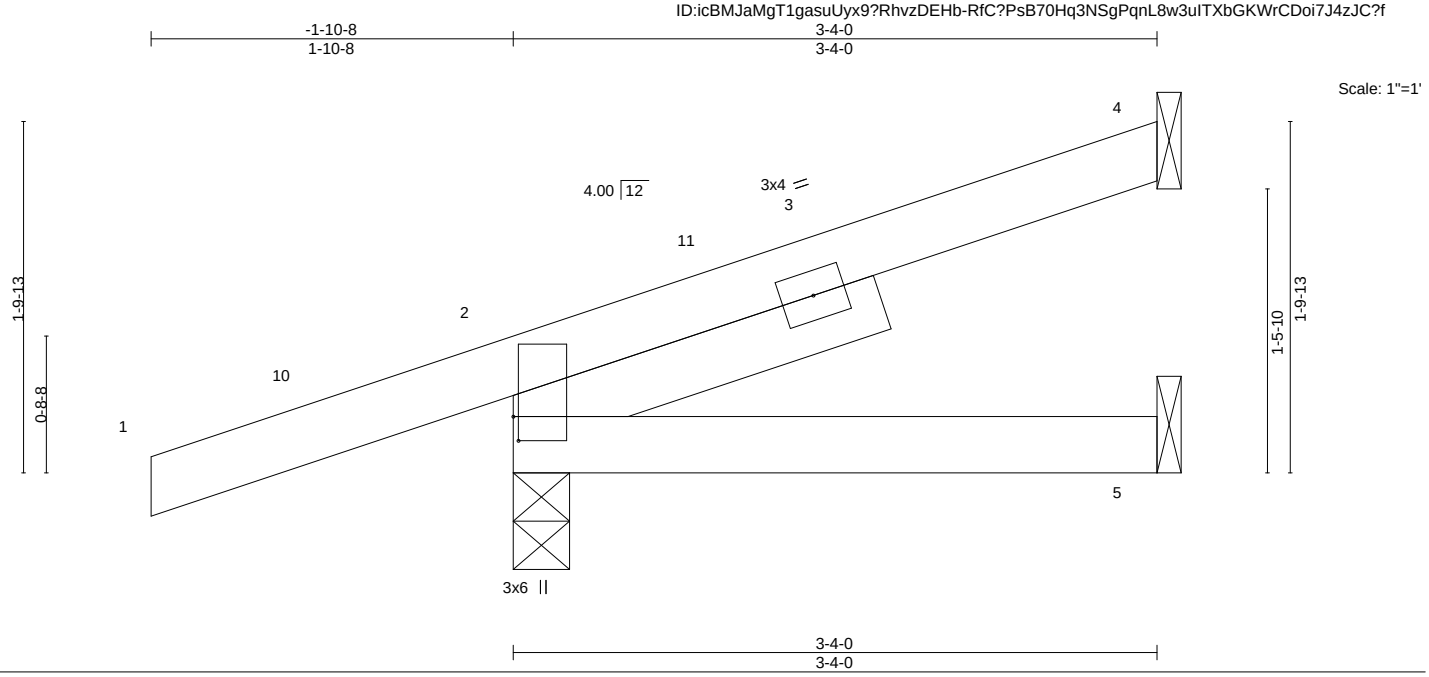


Plate Offsets (X,Y)-- [2:0-1-8,0-0-5]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.22 | Vert(LL) | 0.01 | 5-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | -0.01 | 5-8 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MP | | | | | | | Weight: 12 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=70(LC 8)
Max Uplift 4=-33(LC 12), 2=-103(LC 8)
Max Grav 4=79(LC 1), 2=316(LC 1), 5=52(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-3-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 4 and 103 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J9 | Jack-Open | 2 | 1 | I58837529 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:51 2023 Page 1
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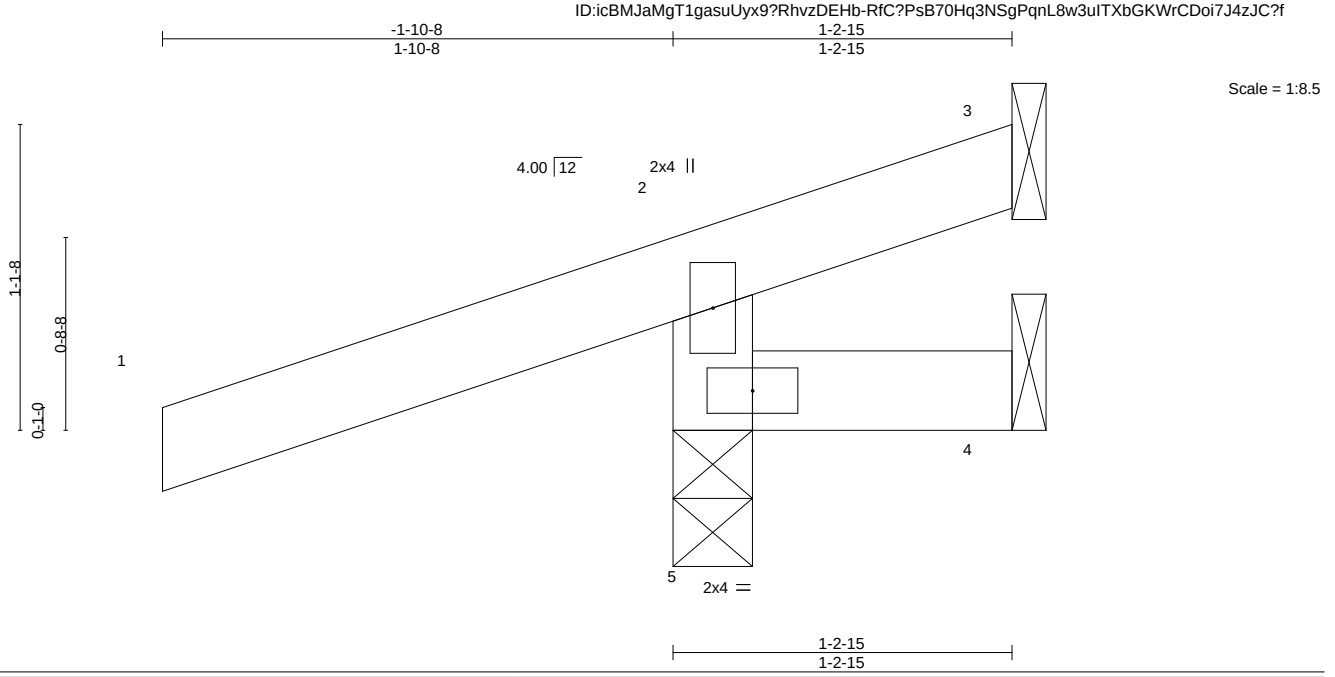


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.28 | Vert(LL) | 0.00 | 5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | 0.00 | 5 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MR | | | | | | | Weight: 6 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 1-2-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=39(LC 8)
Max Uplift 3=-53(LC 1), 4=-29(LC 1), 5=-142(LC 8)
Max Grav 3=31(LC 8), 4=19(LC 8), 5=322(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-271/204

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 3, 29 lb uplift at joint 4 and 142 lb uplift at joint 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J10 | Jack-Partial | 9 | 1 | I58837530 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:24 2023 Page 1
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-1-10-8 / 1-10-8 | 3-7-2 / 3-7-2 | 7-2-4 / 3-7-2

Scale = 1:19.9

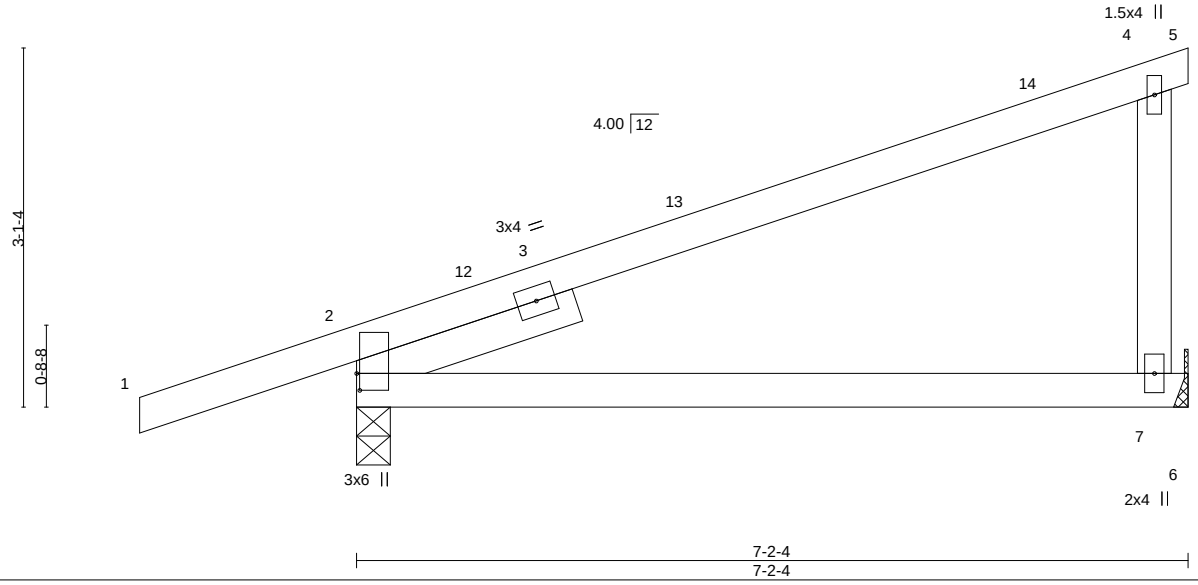


Plate Offsets (X,Y)-- [2:0-1-12,0-0-5]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.60 | Vert(LL) | 0.10 | 7-10 | >819 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.40 | Vert(CT) | -0.20 | 7-10 | >414 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | 0.04 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-AS | | | | | | | Weight: 24 lb | FT = 20% |

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

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

**REACTIONS.** (size) 2=0-3-8, 7=Mechanical
Max Horz 2=118(LC 8)
Max Uplift 2=-114(LC 8), 7=-71(LC 8)
Max Grav 2=459(LC 1), 7=304(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-359/52

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 7-2-4 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) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 2 and 71 lb uplift at joint 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J11 | Jack-Open | 2 | 1 | I58837531 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:25 2023 Page 1
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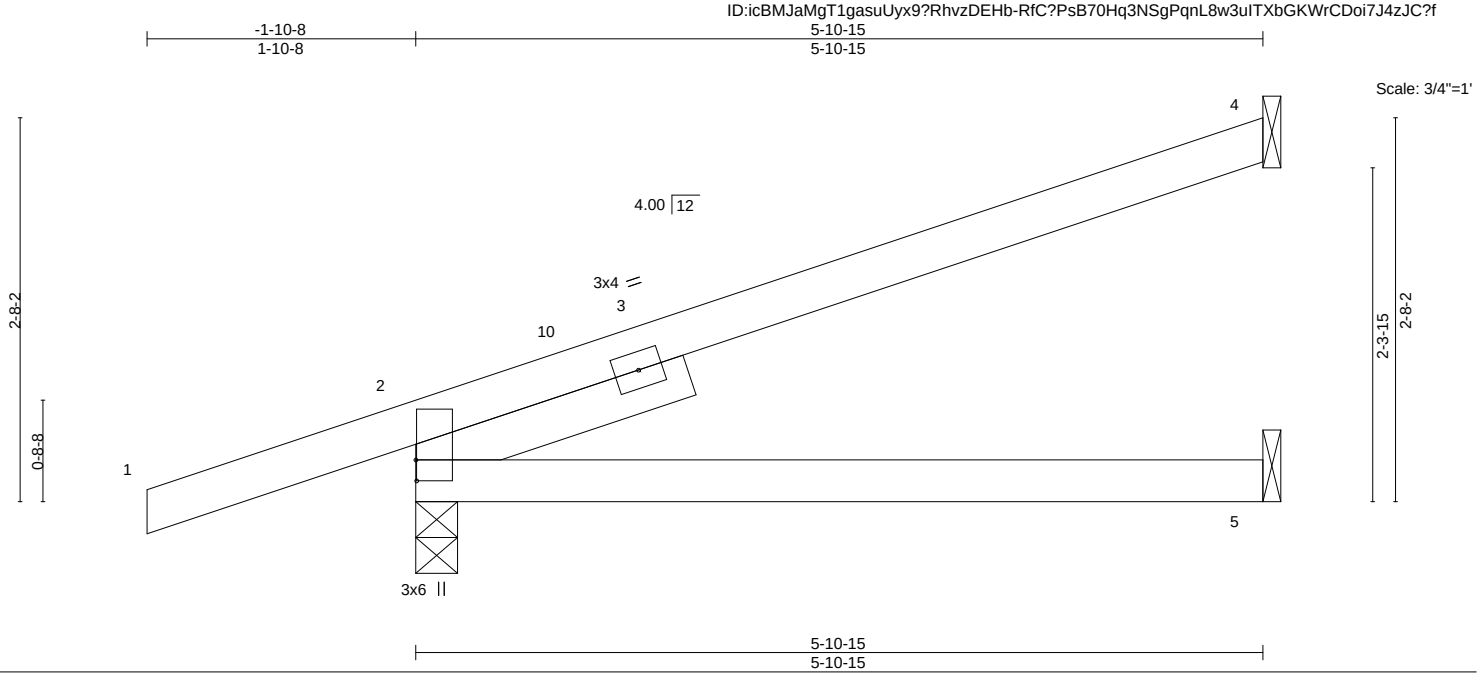


Plate Offsets (X,Y)-- [2:0-1-12,0-0-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.42 | Vert(LL) | 0.06 | 5-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.27 | Vert(CT) | -0.10 | 5-8 | >701 | 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-AS | | | | | | | Weight: 18 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=102(LC 8)
Max Uplift 4=-67(LC 12), 2=-110(LC 8)
Max Grav 4=173(LC 1), 2=415(LC 1), 5=101(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-263/43

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 5-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 4 and 110 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J12 | Jack-Open | 2 | 1 | I58837532 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:26 2023 Page 1
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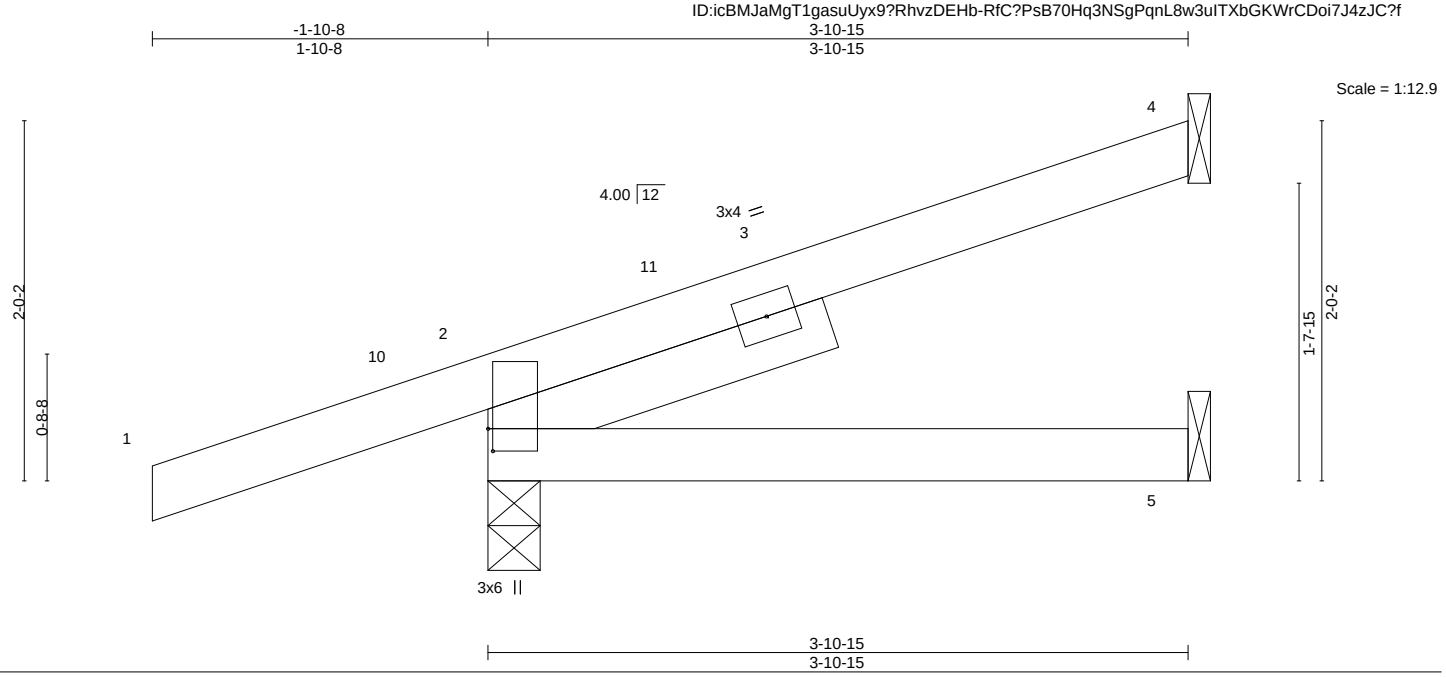


Plate Offsets (X,Y)-- [2:0-1-8,0-0-5]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.22 | Vert(LL) | -0.01 | 5-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.11 | Vert(CT) | -0.02 | 5-8 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.01 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MP | | | | | | | Weight: 14 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=78(LC 8)
Max Uplift 4=-41(LC 12), 2=-103(LC 8)
Max Grav 4=101(LC 1), 2=336(LC 1), 5=64(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 4 and 103 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J13 | Jack-Open | 4 | 1 | I58837533 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:27 2023 Page 1
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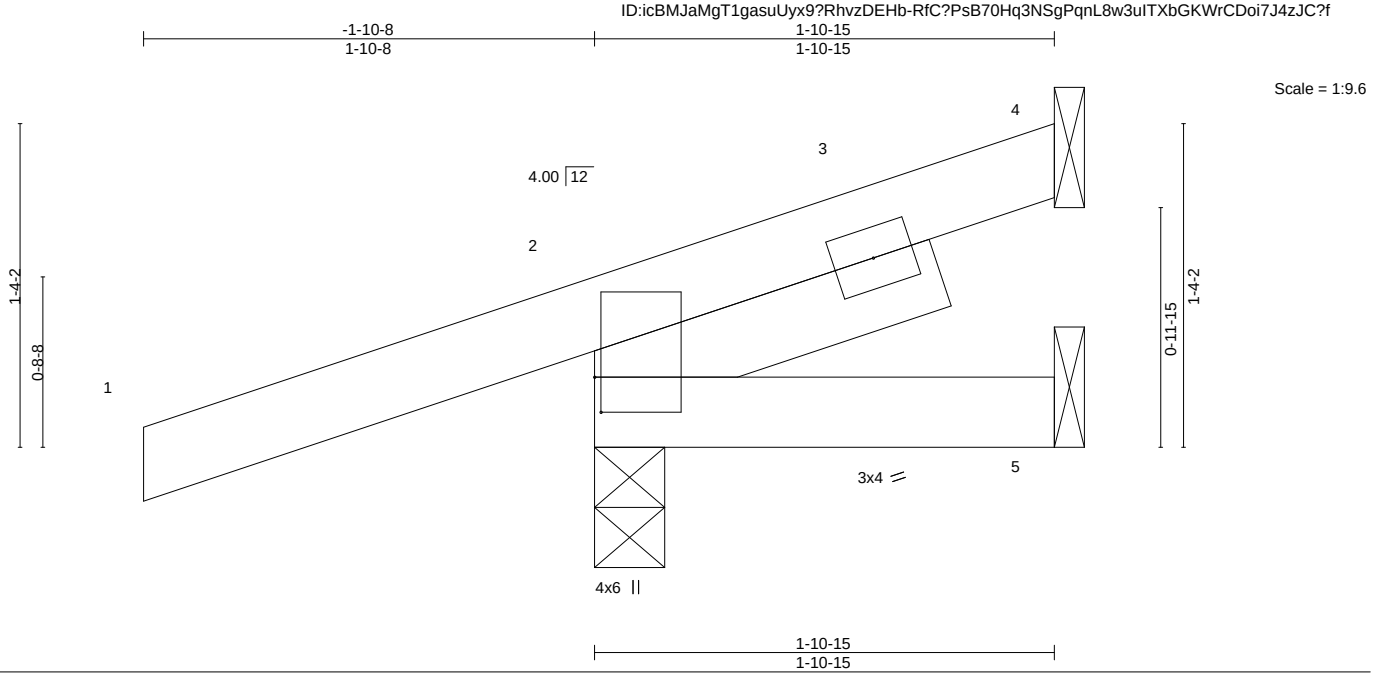


Plate Offsets (X,Y)-- [2:0-1-12,0-0-5]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.24 | Vert(LL) | 0.00 | 8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | 0.00 | 8 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MP | | | | | | | Weight: 9 lb | FT = 20% |

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

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

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=54(LC 8)
Max Uplift 4=-13(LC 12), 2=-108(LC 8)
Max Grav 4=18(LC 1), 2=282(LC 1), 5=24(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 1-10-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 4 and 108 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J14 | Jack-Open | 2 | 1 | I58837534 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:28 2023 Page 1
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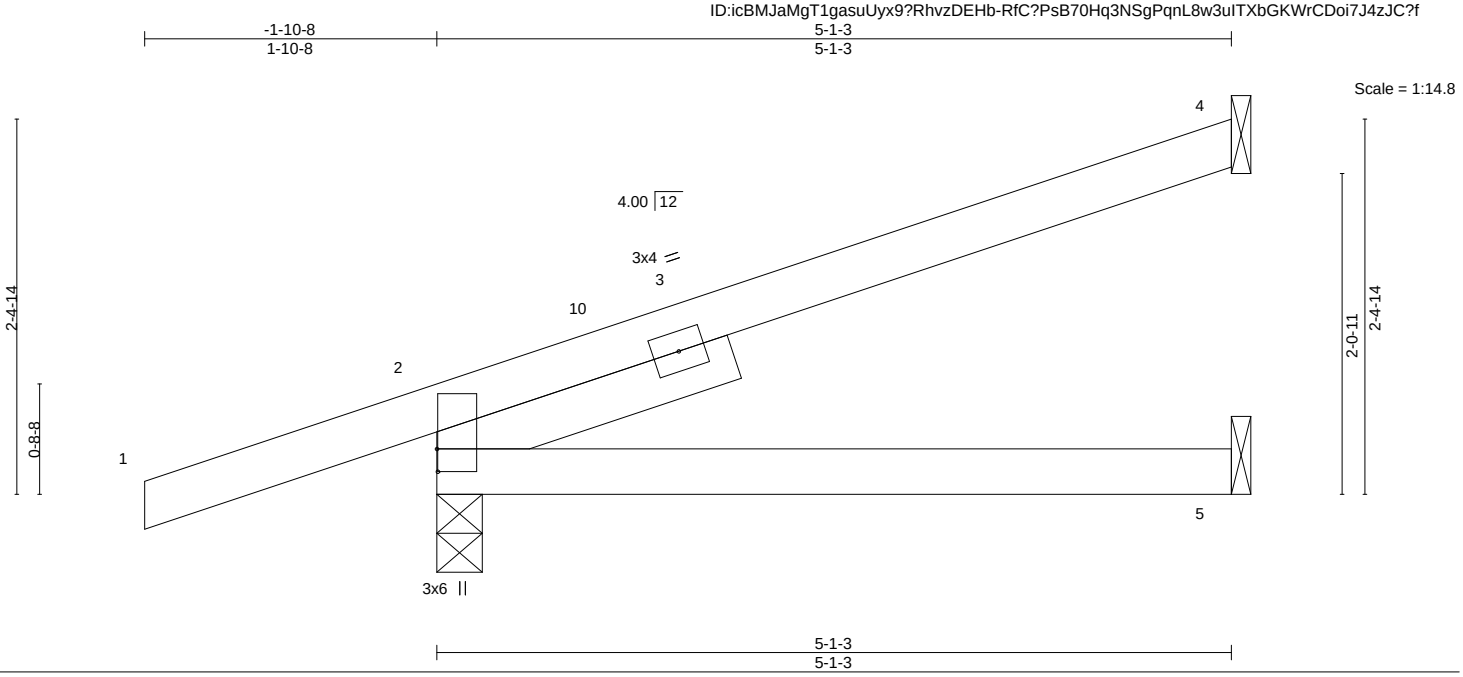


Plate Offsets (X,Y)-- [2:0-1-12,0-0-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.29 | Vert(LL) | 0.04 | 5-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.20 | Vert(CT) | -0.05 | 5-8 | >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-AS | | | | | | | Weight: 17 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=92(LC 8)
Max Uplift 4=-57(LC 12), 2=-107(LC 8)
Max Grav 4=144(LC 1), 2=382(LC 1), 5=86(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 5-0-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 4 and 107 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J15 | Jack-Open | 2 | 1 | I58837535 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:29 2023 Page 1
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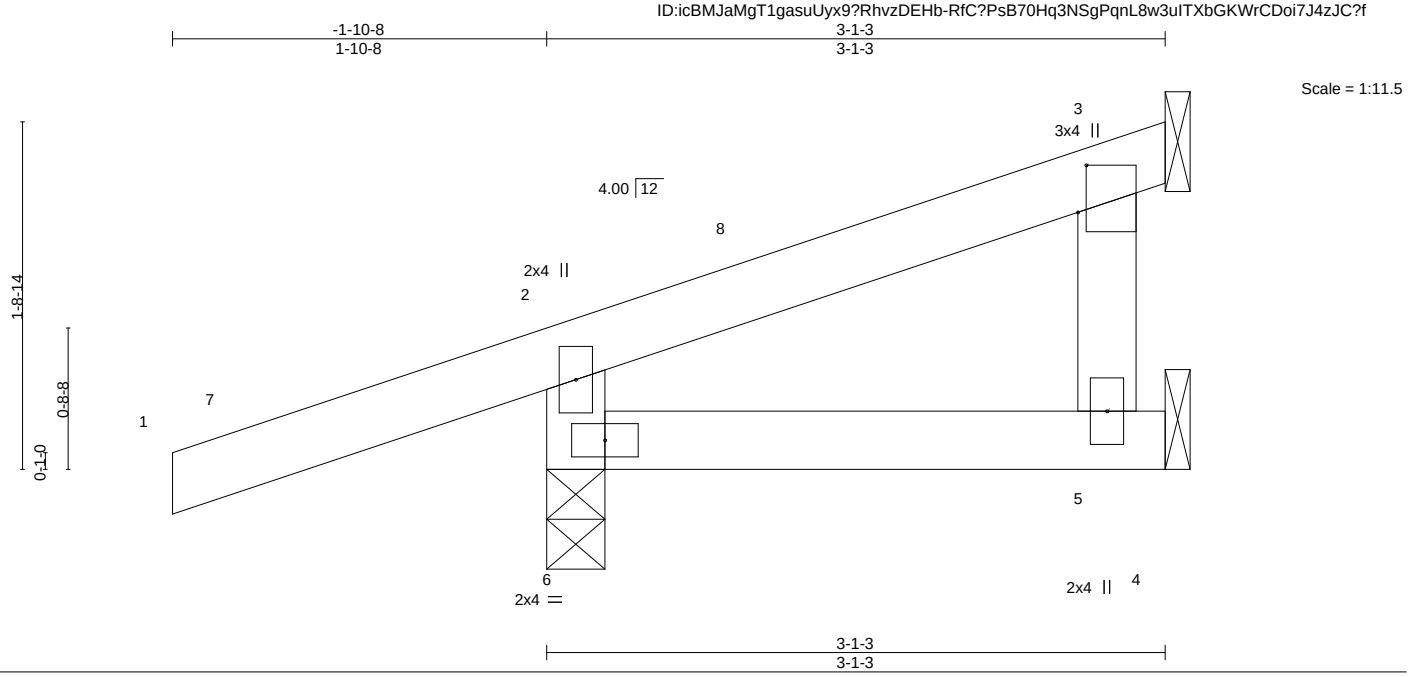


Plate Offsets (X,Y)-- [3:0-2-13,0-0-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.26 | Vert(LL) | 0.00 | 5-6 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | -0.00 | 5-6 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 11 lb | FT = 20% |

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

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

**REACTIONS.** (size) 5=Mechanical, 3=Mechanical, 6=0-3-8
Max Horz 6=59(LC 8)
Max Uplift 3=-27(LC 12), 6=-112(LC 8)
Max Grav 5=57(LC 3), 3=55(LC 1), 6=315(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-273/202

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 2-9-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 3 and 112 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J16 | Jack-Open | 2 | 1 | I58837536 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:30 2023 Page 1
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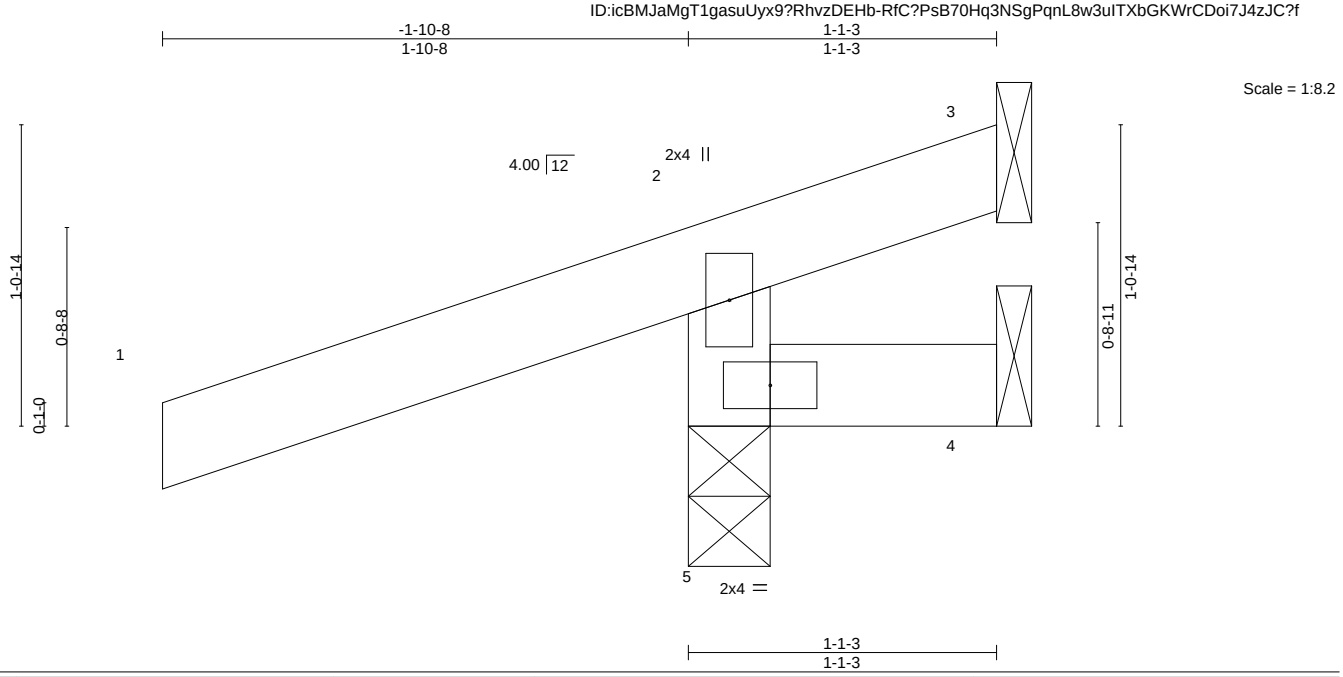


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.28 | Vert(LL) | 0.00 | 5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | 0.00 | 5 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MR | | | | | | | Weight: 5 lb | FT = 20% |

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

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

**REACTIONS.** (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=38(LC 8)
Max Uplift 3=-74(LC 1), 4=-35(LC 1), 5=-152(LC 8)
Max Grav 3=42(LC 8), 4=21(LC 8), 5=336(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-282/213

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 3, 35 lb uplift at joint 4 and 152 lb uplift at joint 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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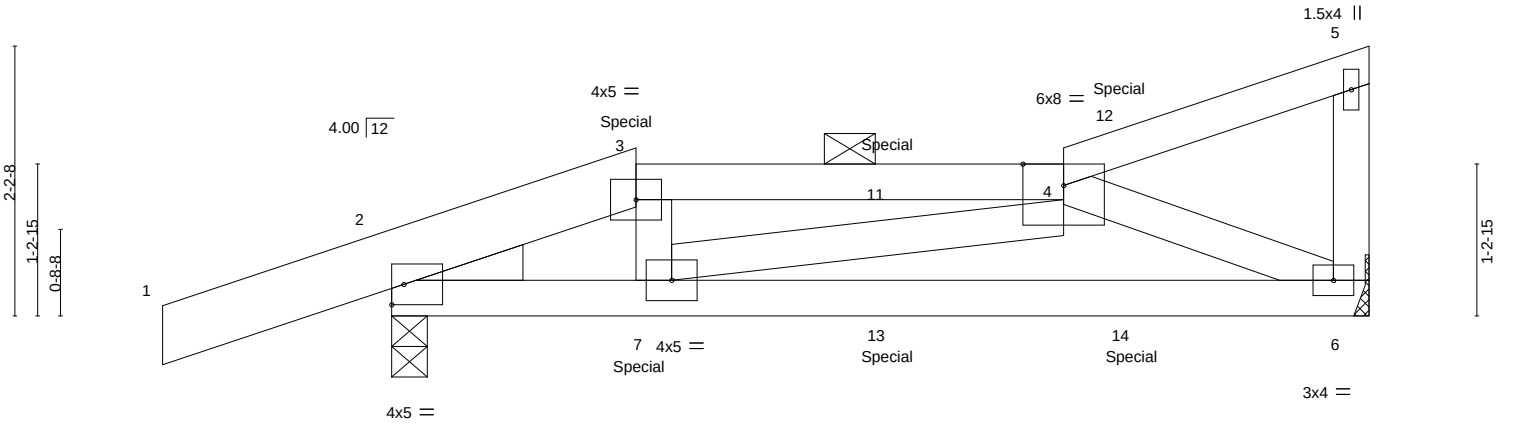
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J17 | Roof Special Girder | 1 | 1 | I58837537 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:31 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-10-8 | 2-0-0 | 5-6-0 | 8-0-0
1-10-8 | 2-0-0 | 3-6-0 | 2-6-0

Scale = 1:18.9




2-0-0 | 5-6-0 | 8-0-0
2-0-0 | 3-6-0 | 2-6-0

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.31 | Vert(LL) | -0.04 | 6-7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.39 | Vert(CT) | -0.10 | 6-7 | >950 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.10 | Horz(CT) | 0.01 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 34 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2 *Except* 1-3: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

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

**REACTIONS.** (size) 6=Mechanical, 2=0-3-8
Max Horz 2=82(LC 7)
Max Uplift 6=-69(LC 8), 2=-148(LC 4)
Max Grav 6=399(LC 1), 2=550(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-719/68, 3-4=-649/64
BOT CHORD 2-7=-78/629, 6-7=-126/565
WEBS 4-6=-614/155, 4-7=0/253

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 69 lb uplift at joint 6 and 148 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 28 lb down and 36 lb up at 2-0-0, and 29 lb down and 37 lb up at 4-0-12, and 29 lb down and 38 lb up at 6-0-12 on top chord, and 65 lb down and 14 lb up at 2-0-0, and 25 lb down at 4-0-12, and 25 lb down at 6-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-5=-70, 6-8=-20


June 12,2023

Continued on page 2



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J17 | Roof Special Girder | 1 | 1 | I58837537<br>Job Reference (optional) |



**LOAD CASE(S)** Standard
Concentrated Loads (lb)
Vert: 3=-13(B) 7=-15(B) 11=-17(B) 12=-17(B) 13=-25(B) 14=-25(B)

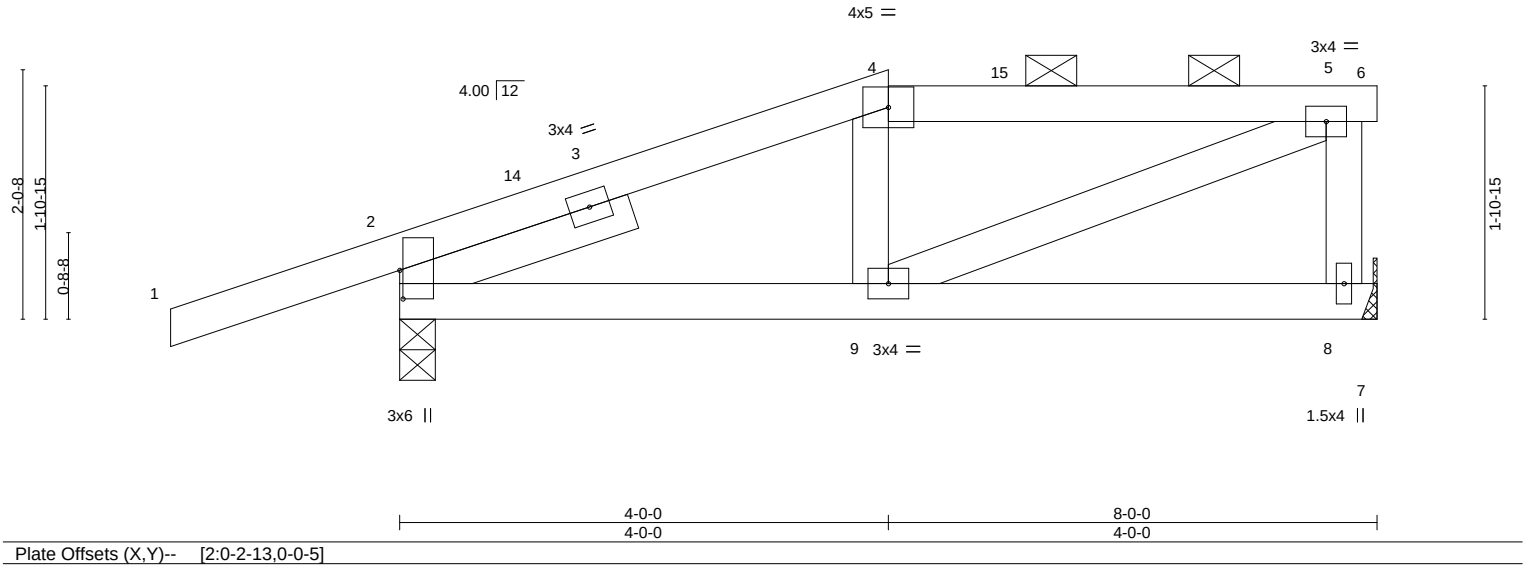
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J18 | Half Hip | 1 | 1 | I58837538 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:32 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-10-8 / 1-10-8 | 4-0-0 / 4-0-0 | 8-0-0 / 4-0-0

Scale = 1:18.9




4-0-0 / 4-0-0 | 8-0-0 / 4-0-0

Plate Offsets (X,Y)-- [2:0-2-13,0-0-5]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.27 | Vert(LL) | -0.01 | 8-9 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.13 | Vert(CT) | -0.02 | 8-9 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.10 | Horz(CT) | -0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 31 lb | FT = 20% |

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

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

**REACTIONS.** (size) 2=0-3-8, 8=Mechanical
Max Horz 2=75(LC 8)
Max Uplift 2=-134(LC 8), 8=-59(LC 8)
Max Grav 2=495(LC 1), 8=343(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-395/164, 4-5=-387/189
BOT CHORD 2-9=-179/378
WEBS 5-8=-303/153, 5-9=-203/418

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 4-0-0, Exterior(2E) 4-0-0 to 8-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 134 lb uplift at joint 2 and 59 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J19 | Half Hip | 1 | 1 | I58837539 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:33 2023 Page 1
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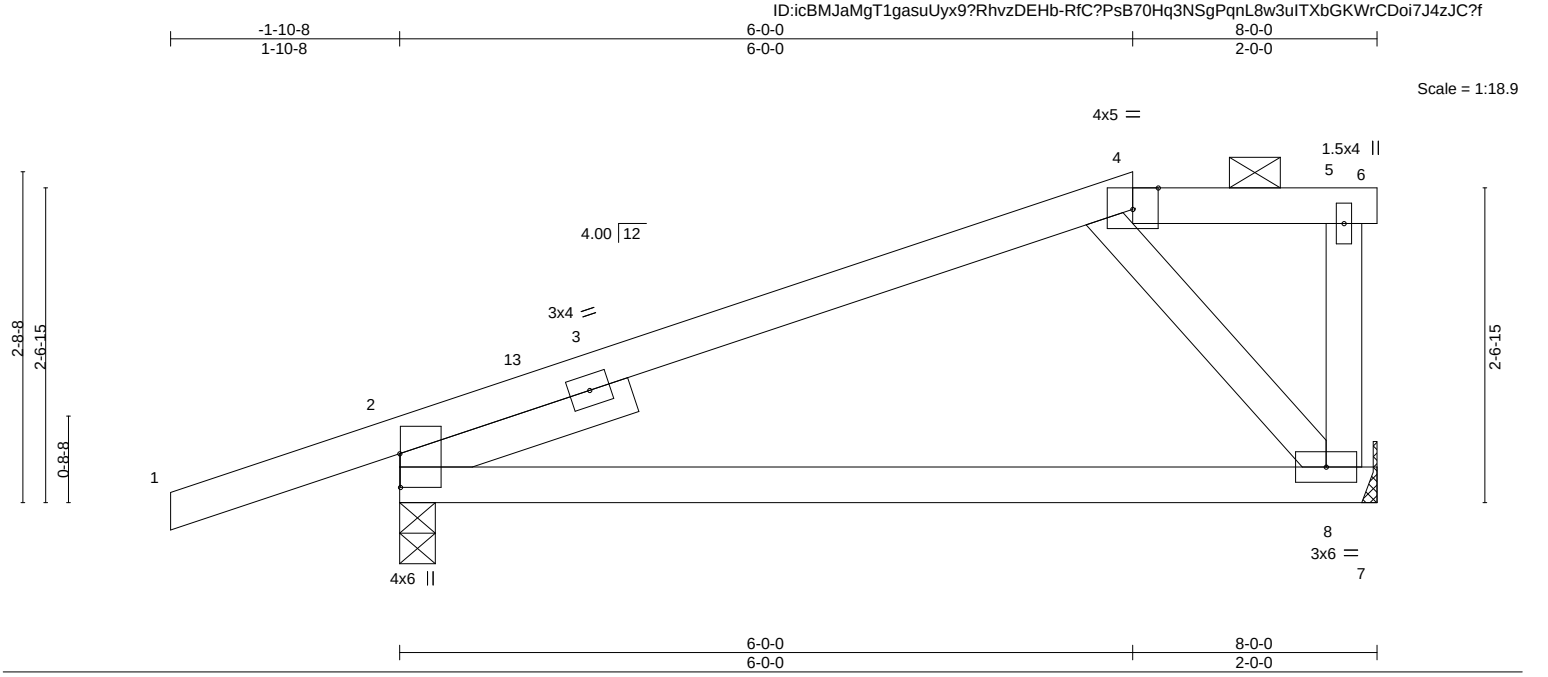


Plate Offsets (X,Y)-- [2:0-3-5,0-0-1], [4:0-2-8,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.48 | Vert(LL) | -0.11 | 8-11 | >828 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.45 | Vert(CT) | -0.24 | 8-11 | >379 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.03 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 29 lb | FT = 20% |

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

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

**REACTIONS.** (size) 2=0-3-8, 8=Mechanical
Max Horz 2=97(LC 11)
Max Uplift 2=-134(LC 8), 8=-59(LC 8)
Max Grav 2=495(LC 1), 8=343(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-562/82

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-0-0, Exterior(2E) 6-0-0 to 8-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 134 lb uplift at joint 2 and 59 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J20 | Jack-Partial | 6 | 1 | I58837540 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:35 2023 Page 1
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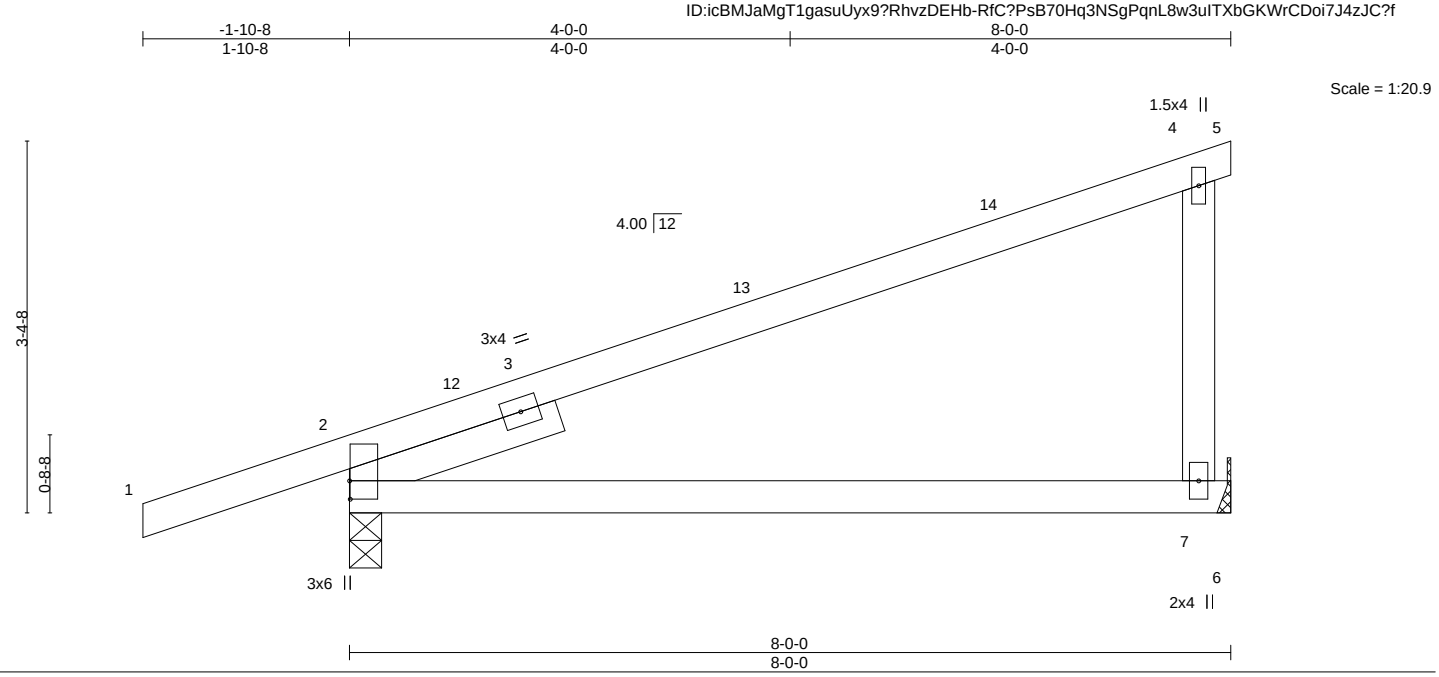


Plate Offsets (X,Y)-- [2:0-2-0,0-0-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.77 | Vert(LL) | 0.14 | 7-10 | >644 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.52 | Vert(CT) | -0.32 | 7-10 | >293 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.06 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 26 lb | FT = 20% |

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

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

**REACTIONS.** (size) 2=0-3-8, 7=Mechanical
Max Horz 2=128(LC 8)
Max Uplift 2=-118(LC 8), 7=-80(LC 8)
Max Grav 2=494(LC 1), 7=343(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-445/59

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 8-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 118 lb uplift at joint 2 and 80 lb uplift at joint 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J21 | Jack-Partial | 3 | 1 | I58837541 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:36 2023 Page 1
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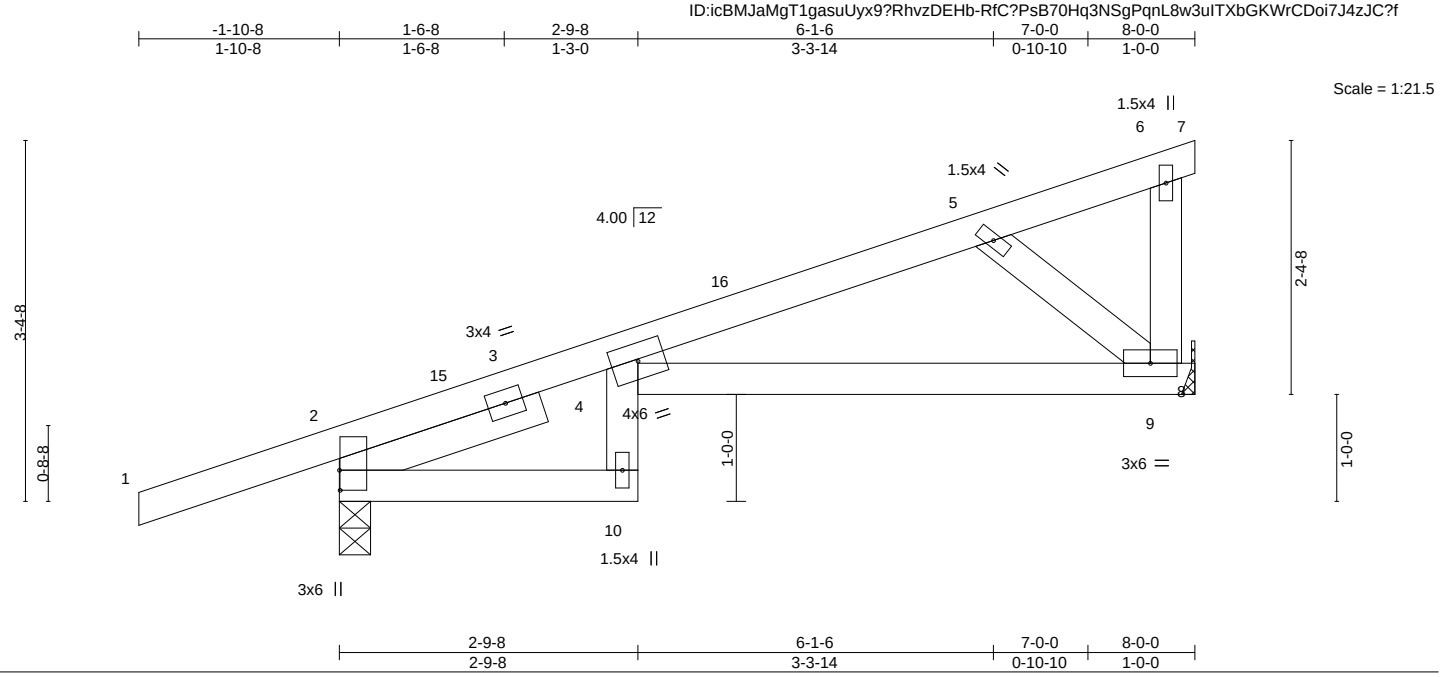


Plate Offsets (X,Y)-- [2:0-2-4,0-0-1]

| LOADING | (psf) | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 1.00 | Vert(LL) | -0.21 | 10 | >446 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.32 | Vert(CT) | -0.38 | 10 | >242 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.21 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 29 lb | FT = 20% |

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

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

**REACTIONS.** (size) 2=0-3-8, 9=Mechanical
Max Horz 2=128(LC 8)
Max Uplift 2=-117(LC 8), 9=-79(LC 8)
Max Grav 2=496(LC 1), 9=343(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-12=-250/52, 4-5=-458/209
BOT CHORD 4-9=-310/466
WEBS 5-9=-594/396

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 8-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 2 and 79 lb uplift at joint 9.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J22 | Jack-Open | 2 | 1 | I58837542 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:37 2023 Page 1
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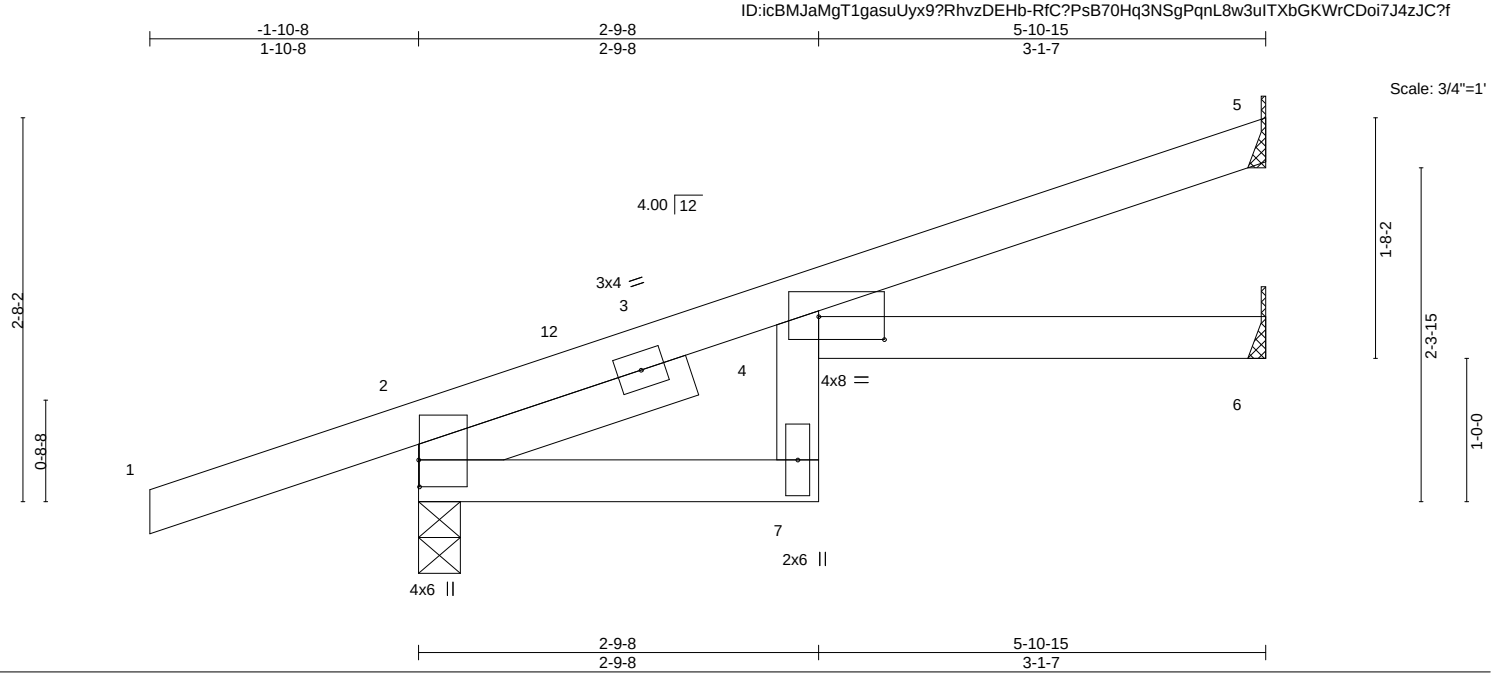


Plate Offsets (X,Y)-- [2:0-2-4,0-0-1], [4:0-5-8,0-1-15]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.57 | Vert(LL) | 0.11 | 7 | >661 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.39 | Vert(CT) | -0.15 | 7 | >465 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.09 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 20 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

**REACTIONS.** (size) 5=Mechanical, 2=0-3-8, 6=Mechanical
Max Horz 2=102(LC 8)
Max Uplift 5=-52(LC 12), 2=-110(LC 8), 6=-6(LC 12)
Max Grav 5=153(LC 1), 2=416(LC 1), 6=97(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 5-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 5, 110 lb uplift at joint 2 and 6 lb uplift at joint 6.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J23 | Jack-Open | 2 | 1 | I58837543 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:39 2023 Page 1
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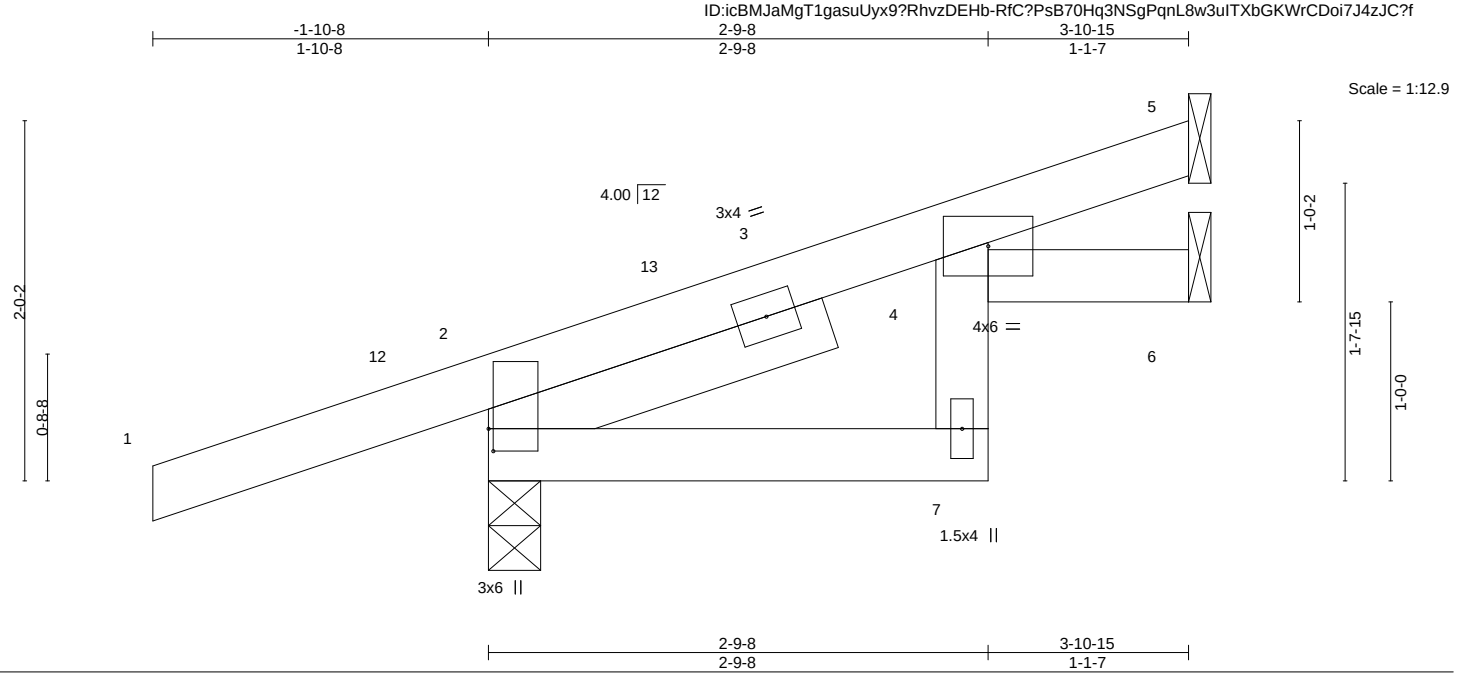


Plate Offsets (X,Y)-- [2:0-1-8,0-0-5]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.22 | Vert(LL) | 0.02 | 7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.11 | Vert(CT) | -0.02 | 7 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.02 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MR | | | | | | | Weight: 15 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 5=Mechanical, 2=0-3-8, 6=Mechanical
Max Horz 2=78(LC 8)
Max Uplift 5=-26(LC 12), 2=-103(LC 8), 6=-9(LC 12)
Max Grav 5=82(LC 1), 2=337(LC 1), 6=60(LC 1)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 5, 103 lb uplift at joint 2 and 9 lb uplift at joint 6.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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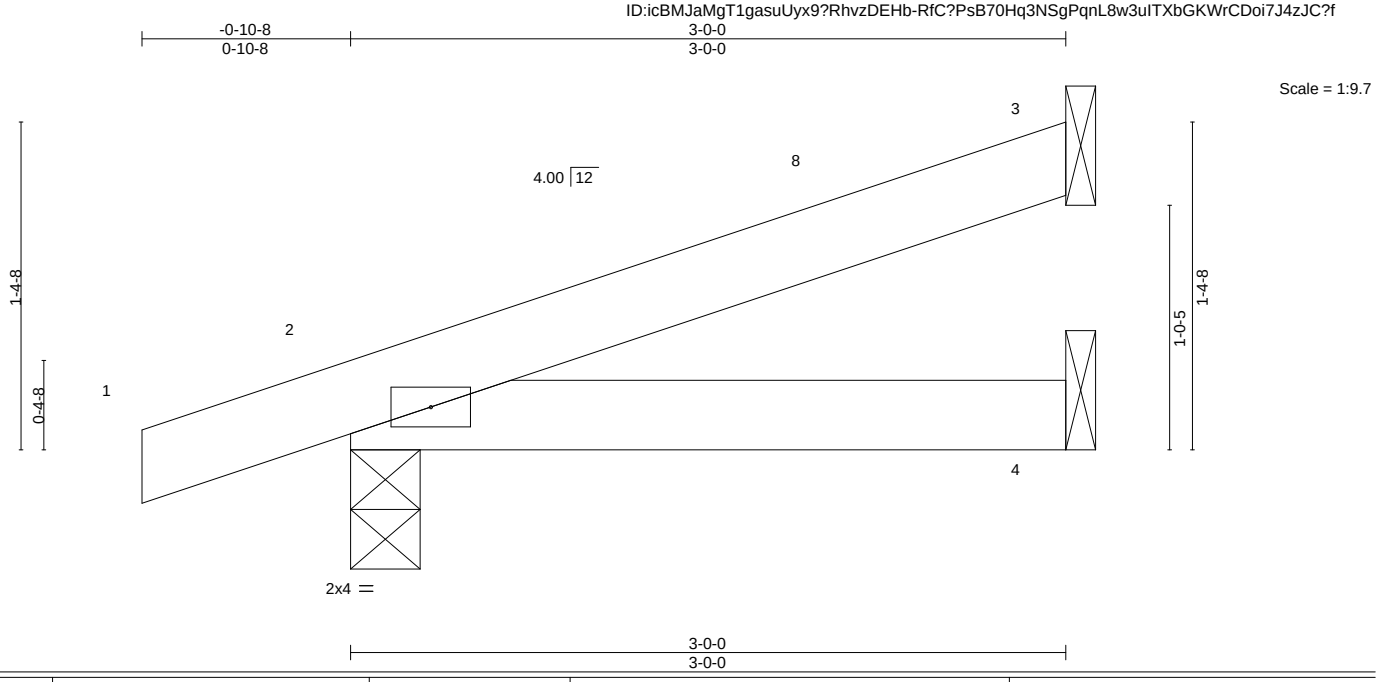
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J24 | Jack-Open | 1 | 1 | I58837544 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:40 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.09 | Vert(LL) | -0.00 | 4-7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | -0.01 | 4-7 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 8 lb | FT = 20% |

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

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

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=50(LC 8)
Max Uplift 3=-30(LC 12), 2=-54(LC 8)
Max Grav 3=83(LC 1), 2=203(LC 1), 4=52(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 3 and 54 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J25 | Jack-Open | 2 | 1 | I58837545 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:40 2023 Page 1
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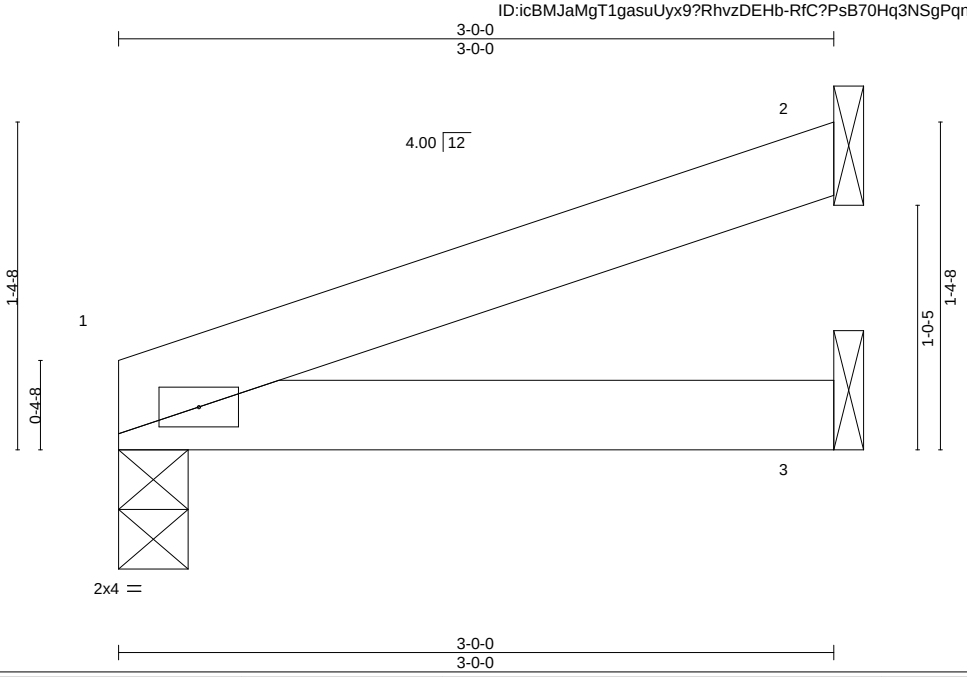


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.10 | Vert(LL) | 0.01 | 3-6 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | -0.01 | 3-6 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 1 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 7 lb | FT = 20% |

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

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

**REACTIONS.** (size) 1=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 1=36(LC 8)
Max Uplift 1=-17(LC 8), 2=-31(LC 8)
Max Grav 1=132(LC 1), 2=87(LC 1), 3=53(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1 and 31 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J26 | Jack-Open | 3 | 1 | I58837546 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:41 2023 Page 1
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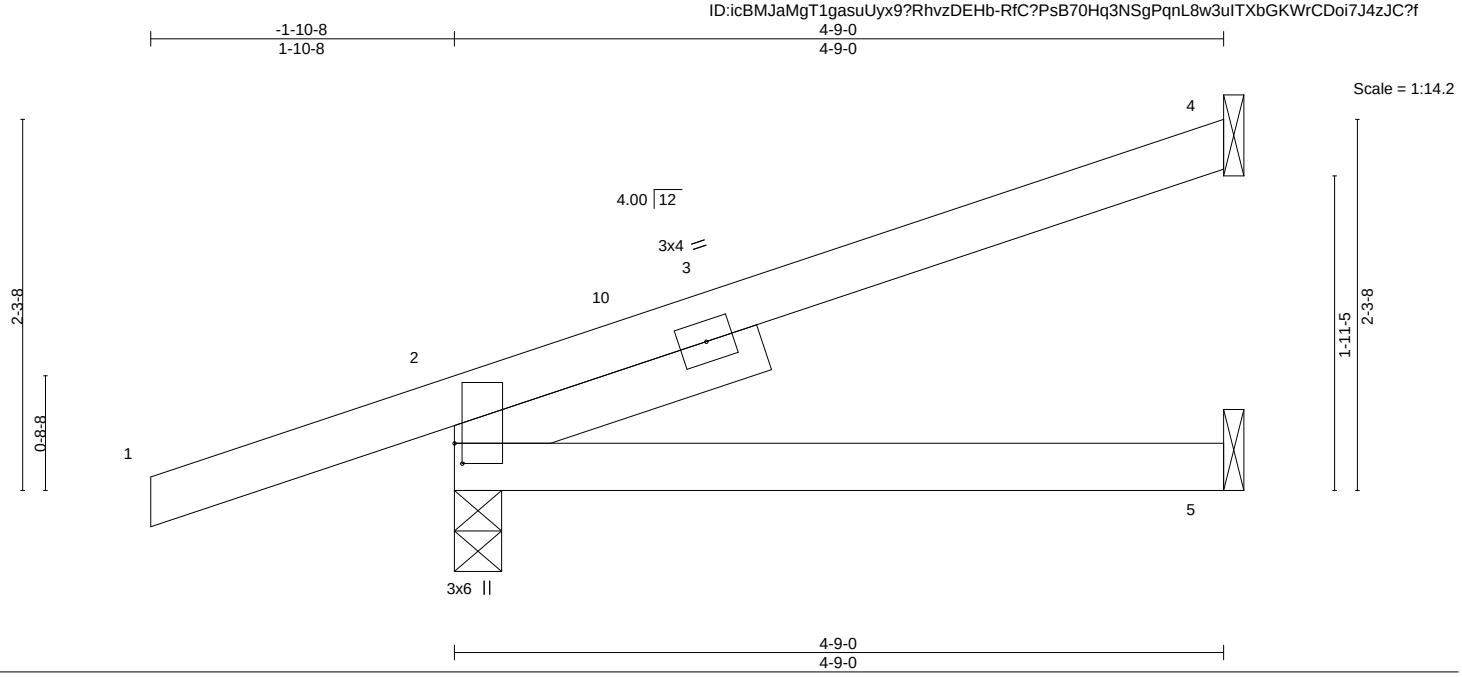


Plate Offsets (X,Y)-- [2:0-1-8,0-0-9]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.24 | Vert(LL) | 0.03 | 5-8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.17 | Vert(CT) | -0.04 | 5-8 | >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-AS | | | | | | | Weight: 16 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=88(LC 8)
Max Uplift 4=-52(LC 12), 2=-106(LC 8)
Max Grav 4=132(LC 1), 2=368(LC 1), 5=80(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 4-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 4 and 106 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J27 | Jack-Open | 4 | 1 | I58837547 |

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:42 2023 Page 1
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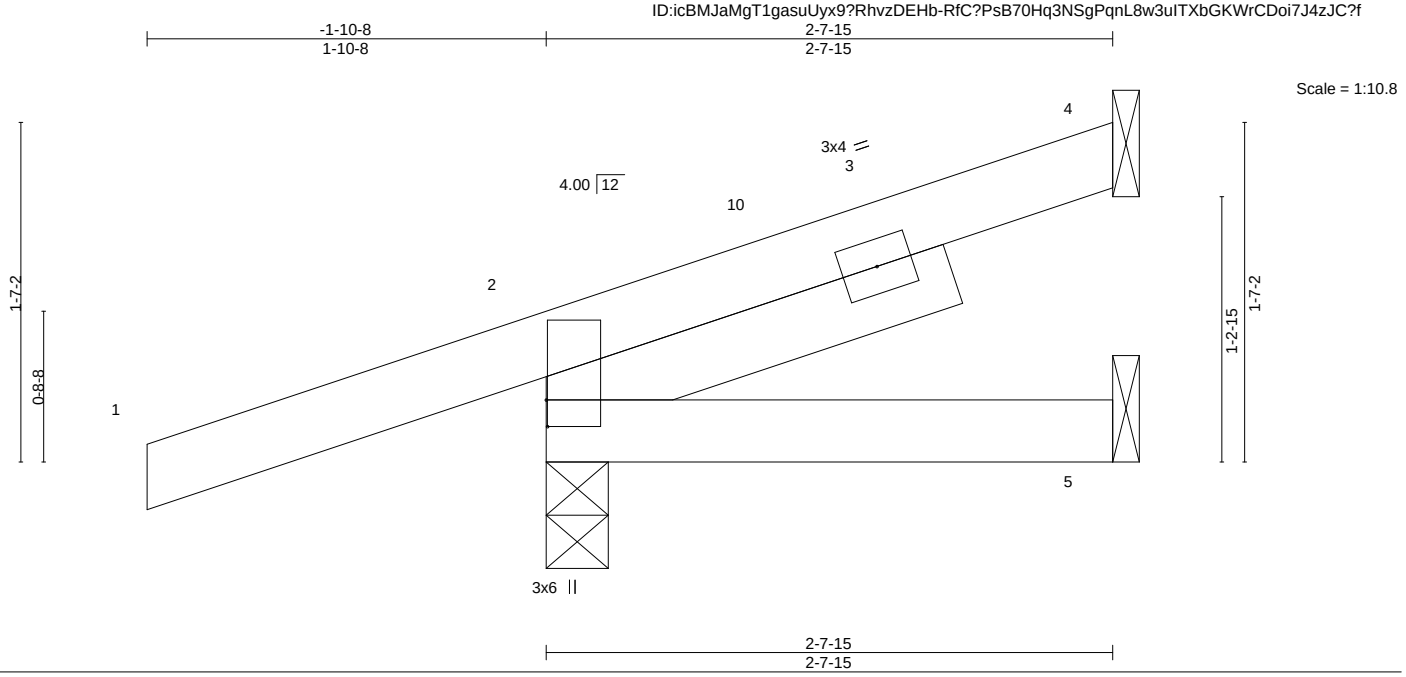


Plate Offsets (X,Y)-- [2:0-1-8,0-0-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.24 | Vert(LL) | -0.00 | 8 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 5-8 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MP | | | | | | | Weight: 11 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-7-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=62(LC 8)
Max Uplift 4=-24(LC 12), 2=-104(LC 8)
Max Grav 4=52(LC 1), 2=296(LC 1), 5=38(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 2-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 4 and 104 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J28 | MONO TRUSS | 6 | 1 | I58837548 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:43 2023 Page 1
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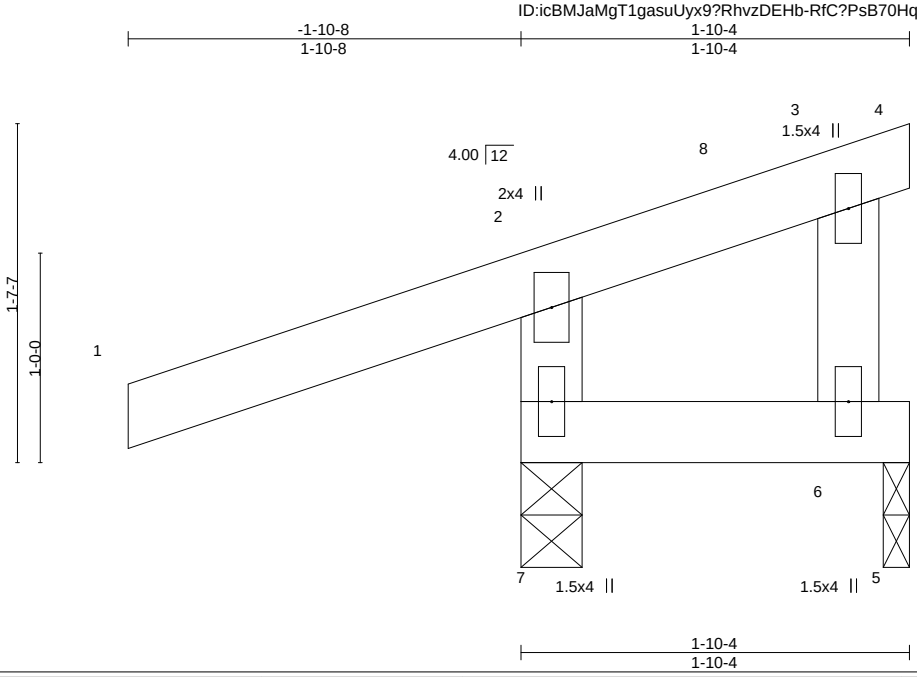


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.28 | Vert(LL) | 0.00 | 6 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | 0.00 | 7 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.01 | Horz(CT) | 0.00 | | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 8 lb | FT = 20% |

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

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

**REACTIONS.** (size) 7=0-3-8, 5=0-1-8
Max Horz 7=41(LC 11)
Max Uplift 7=-115(LC 8), 5=-21(LC 1)
Max Grav 7=301(LC 1), 5=27(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-273/197

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 1-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 115 lb uplift at joint 7 and 21 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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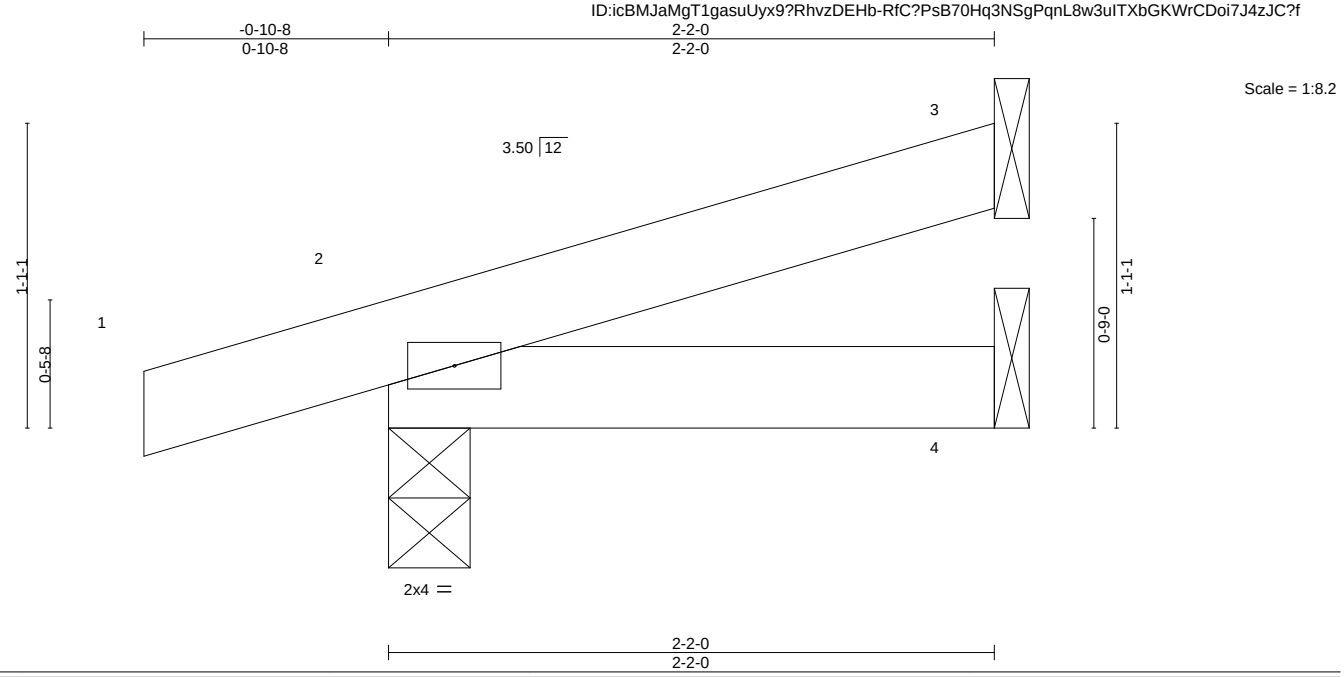
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | J29 | Jack-Open | 4 | 1 | I58837549 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:44 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.05 | Vert(LL) | -0.00 | 7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 7 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 6 lb | FT = 20% |

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

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

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=35(LC 8)
Max Uplift 3=-21(LC 12), 2=-51(LC 8)
Max Grav 3=57(LC 1), 2=169(LC 1), 4=36(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 3 and 51 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | L1 | Monopitch | 6 | 1 | I58837550 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:52 2023 Page 1
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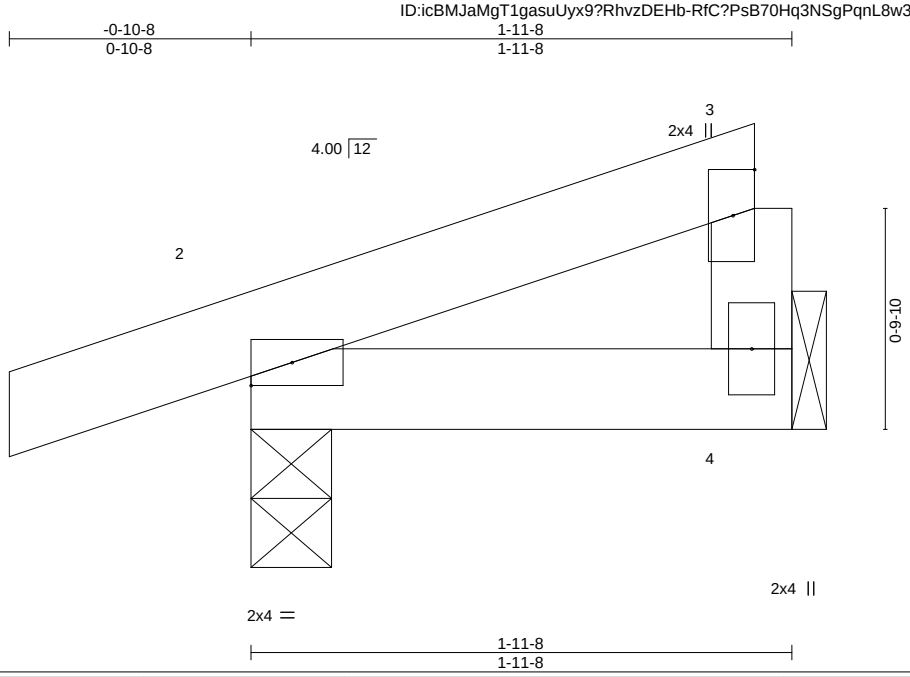


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.05 | Vert(LL) | -0.00 | 7 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | -0.00 | 7 | >999 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 6 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 1-11-8 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8
Max Horz 2=35(LC 11)
Max Uplift 4=-14(LC 12), 2=-52(LC 8)
Max Grav 4=67(LC 1), 2=158(LC 1)

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

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 4 and 52 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | LG1 | GABLE | 1 | 1 | I58837551 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:53 2023 Page 1
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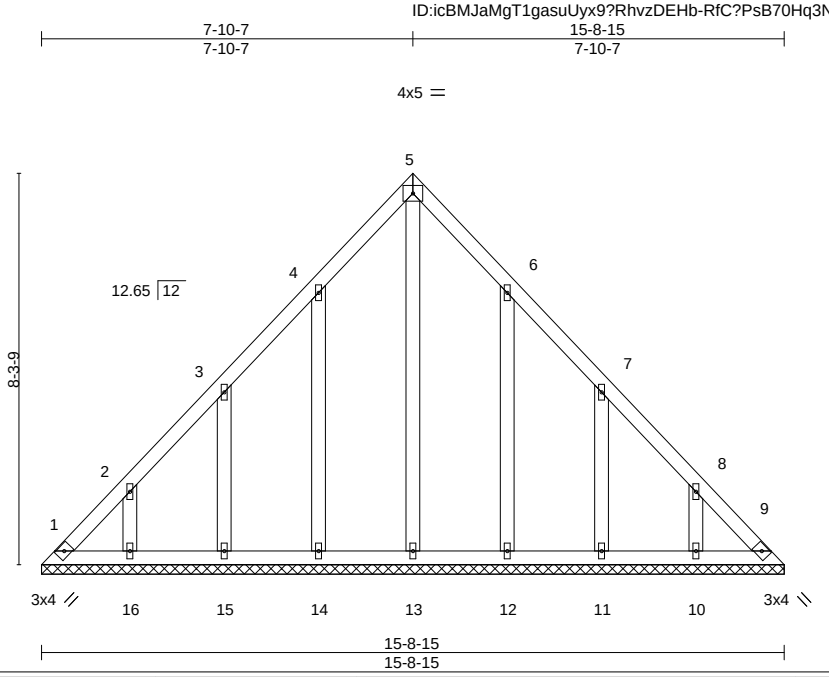


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.16 | Horz(CT) | 0.00 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 76 lb | FT = 20% |

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

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

**REACTIONS.** All bearings 15-8-15.
(lb) - Max Horz 1=-189(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=-116(LC 12), 15=-116(LC 12), 16=-111(LC 12), 12=-115(LC 13), 11=-117(LC 13), 10=-111(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-251/161

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-1 to 3-4-1, Interior(1) 3-4-1 to 7-10-7, Exterior(2R) 7-10-7 to 10-10-7, Interior(1) 10-10-7 to 15-4-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=116, 15=116, 16=111, 12=115, 11=117, 10=111.
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.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | LG2 | GABLE | 1 | 1 | I58837552 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:54 2023 Page 1
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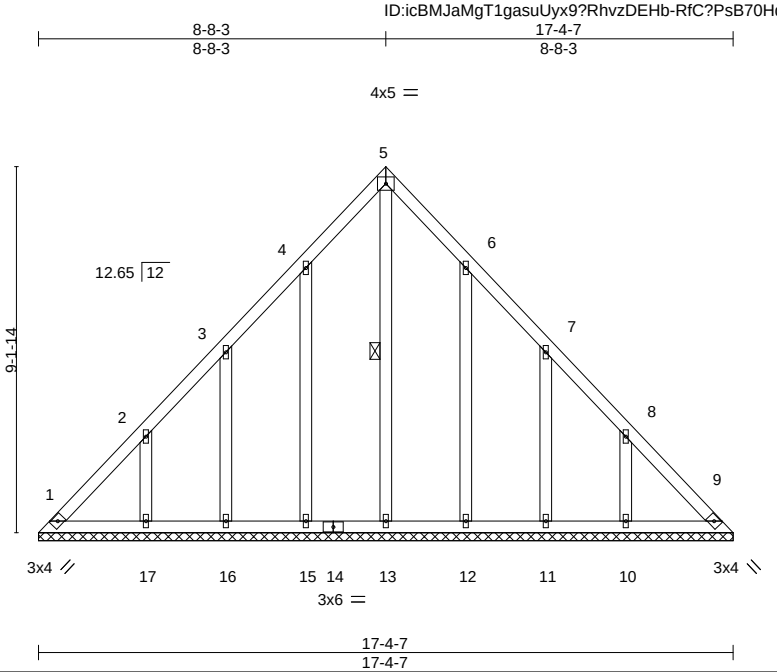


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.13 | Horz(CT) | 0.01 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 87 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-13

**REACTIONS.** All bearings 17-4-7.
(lb) - Max Horz 1=-209(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 15=-117(LC 12), 16=-107(LC 12), 17=-143(LC 12), 12=-115(LC 13), 11=-108(LC 13), 10=-143(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 15, 16, 12, 11, 10 except 17=250(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-264/176

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-1 to 3-4-1, Interior(1) 3-4-1 to 8-8-3, Exterior(2R) 8-8-3 to 11-8-3, Interior(1) 11-8-3 to 17-0-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 15=117, 16=107, 17=143, 12=115, 11=108, 10=143.
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.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | LG3 | GABLE | 2 | 1 | I58837553 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:55 2023 Page 1
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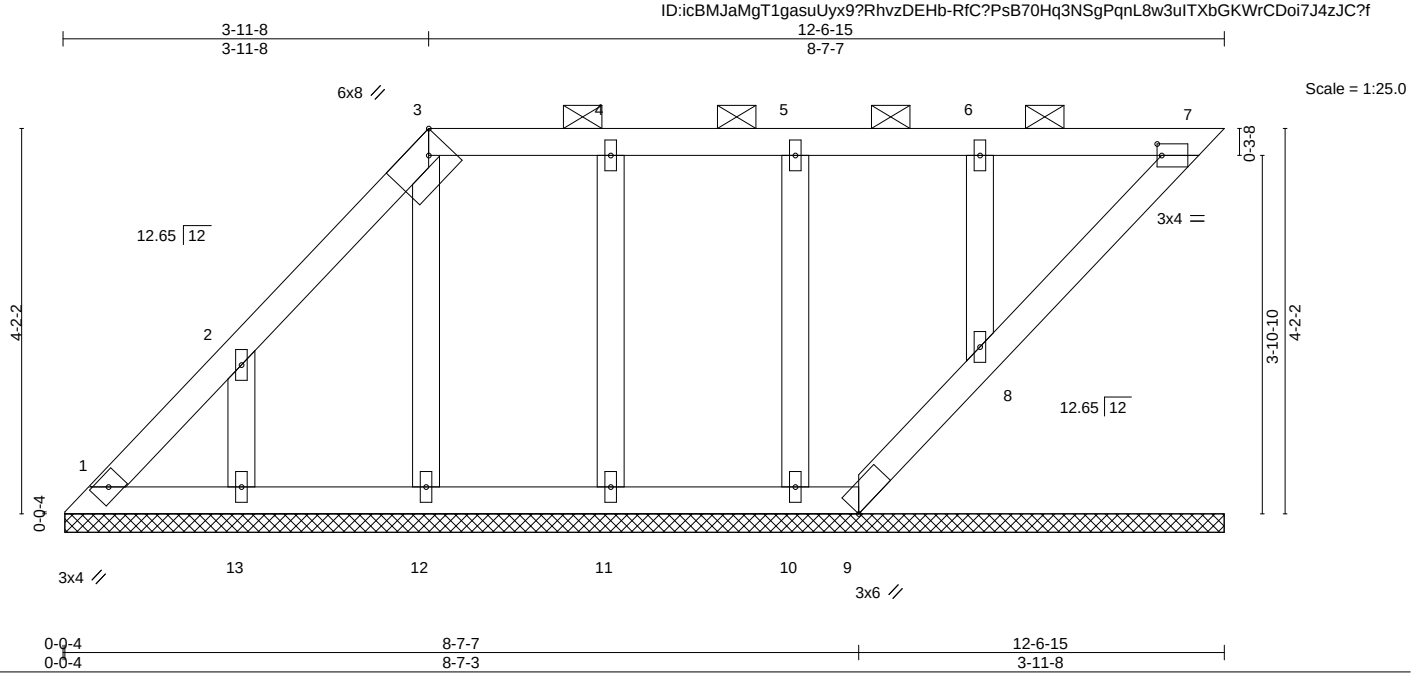


Plate Offsets (X,Y)-- [3:0-2-9,Edge], [7:0-0-10,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.07 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | -0.00 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 48 lb | FT = 20% |

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

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

**REACTIONS.** All bearings 12-6-11.
(lb) - Max Horz 1=143(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 9, 12, 11, 10, 8 except 13=-126(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 9, 13, 12, 11, 10, 8

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

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-1 to 3-4-1, Interior(1) 3-4-1 to 3-11-8, Exterior(2R) 3-11-8 to 6-11-8, Interior(1) 6-11-8 to 12-3-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 9, 12, 11, 10, 8 except (jt=lb) 13=126.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


June 12,2023



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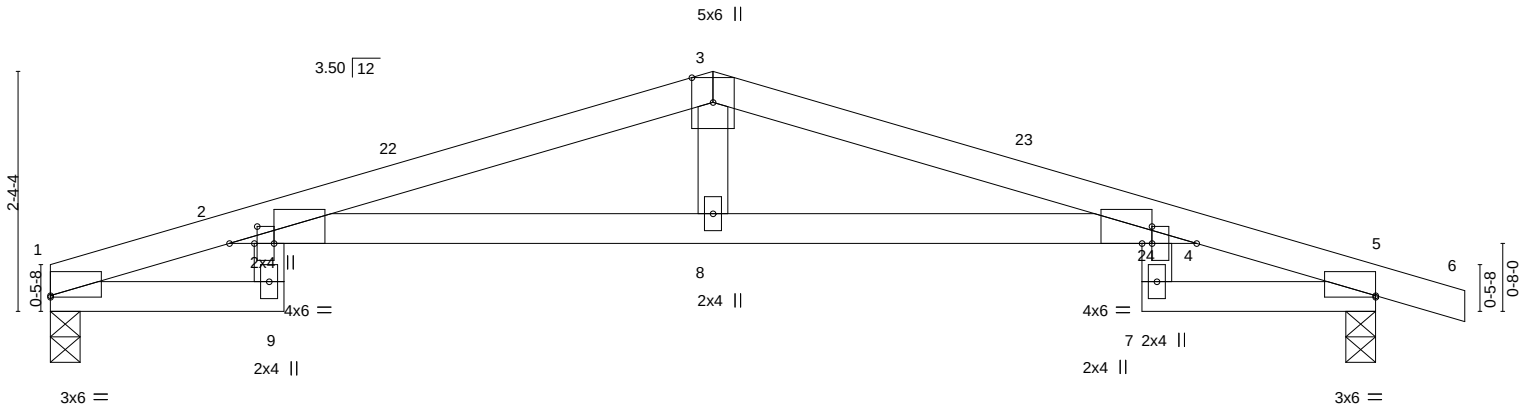
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | P1 | Roof Special | 1 | 1 | I58837554 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:57 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

Scale = 1:22.6




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

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

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.85 | Vert(LL) | -0.30 | 9 | >515 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.95 | Vert(CT) | -0.57 | 9 | >273 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.10 | Horz(CT) | 0.27 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-AS | | | | | | | Weight: 40 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-4: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

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

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8
Max Horz 1=-38(LC 17)
Max Uplift 1=-79(LC 8), 5=-112(LC 9)
Max Grav 1=594(LC 1), 5=659(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1784/508, 3-4=-1784/501
BOT CHORD 2-8=-414/1724, 4-8=-414/1724
WEBS 3-8=-55/397

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 2-9-1, Interior(1) 2-9-1 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 13-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 5=112.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | P2 | ROOF SPECIAL | 2 | 1 | I58837555 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:13:58 2023 Page 1
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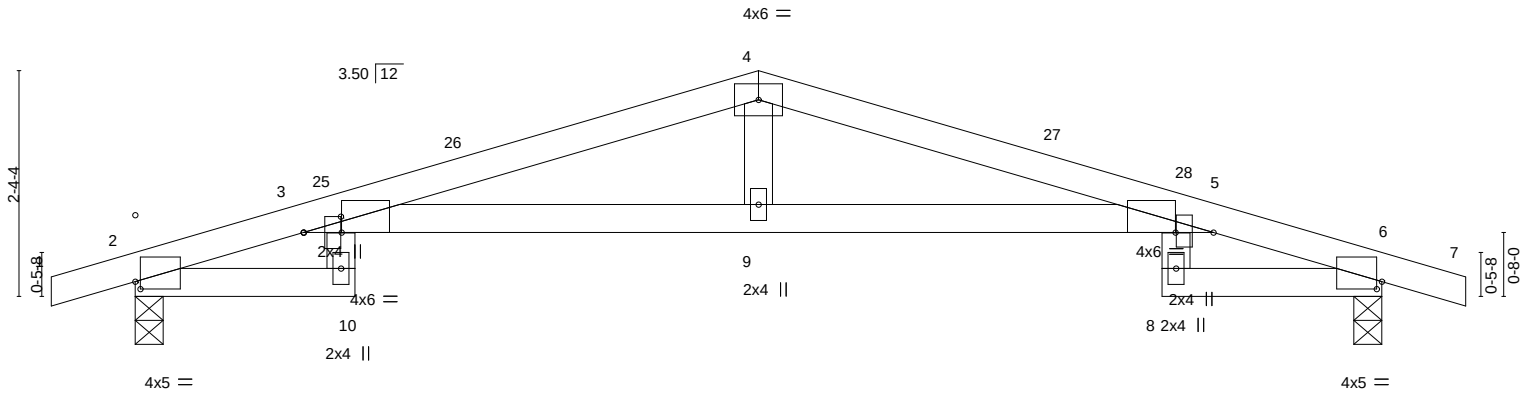
| -0-10-8 | 2-3-8 | 5-0-15 | 6-6-0 | 7-11-1 | 10-8-8 | 13-0-0 | 13-10-8 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 2-3-8 | 2-9-7 | 1-5-1 | 1-5-1 | 2-9-7 | 2-3-8 | 0-10-8 |

Scale: 1/2"=1'




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

Plate Offsets (X,Y)-- [2:0-0-10,0-0-15], [3:0-4-12,Edge], [3:0-2-0,0-4-10], [3:0-2-3,1-9-1], [5:0-4-12,Edge], [6:0-0-10,0-0-15]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.84 | Vert(LL) | -0.28 | 10 | >549 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.74 | Vert(CT) | -0.54 | 10 | >288 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.12 | Horz(CT) | 0.25 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MS | | | | | | | Weight: 45 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-5: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2

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

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8
Max Horz 2=34(LC 12)
Max Uplift 2=-112(LC 8), 6=-112(LC 9)
Max Grav 2=657(LC 1), 6=657(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-1762/488, 4-5=-1762/492
BOT CHORD 3-9=-402/1691, 5-9=-402/1691
WEBS 4-9=-74/473

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 13-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=112, 6=112.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.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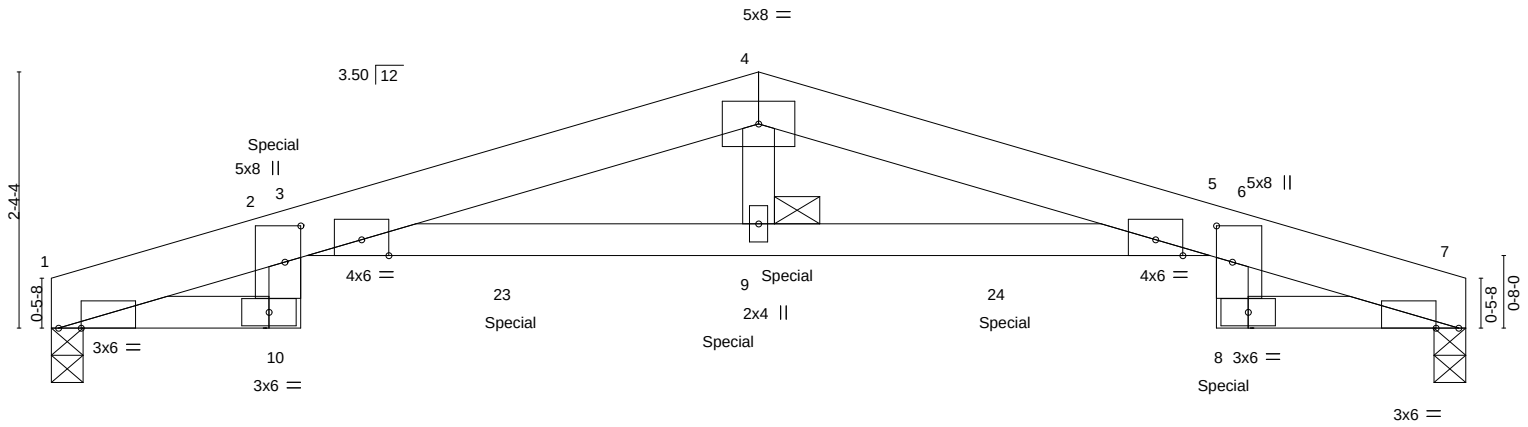
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | P3 | ROOF SPECIAL GIRDER | 1 | 2 | I58837556 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:14:00 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

Scale = 1:21.2




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

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

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.65 | Vert(LL) | -0.18 | 9-22 | >844 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.86 | Vert(CT) | -0.31 | 9-22 | >494 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.12 | Horz(CT) | 0.16 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MS | | | | | | | Weight: 82 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 9

**REACTIONS.** (size) 1=0-3-8, 7=0-3-8
Max Horz 1=30(LC 8)
Max Uplift 1=-253(LC 4), 7=-252(LC 5)
Max Grav 1=1233(LC 1), 7=1226(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1301/268, 3-4=-4113/844, 4-5=-4112/854, 5-6=-292/83, 6-7=-1306/284
BOT CHORD 1-10=-193/910, 2-10=-115/549, 3-9=-810/4079, 5-9=-810/4079, 6-8=-60/321, 7-8=-187/918
WEBS 4-9=-198/966

**NOTES-**
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Bearing at joint(s) 1, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=253, 7=252.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 225 lb down and 63 lb up at 2-4-3, 219 lb down and 65 lb up at 4-2-12, 210 lb down and 75 lb up at 6-2-12, 210 lb down and 75 lb up at 6-9-4, and 219 lb down and 65 lb up at 8-9-4, and 225 lb down and 63 lb up at 10-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard


June 12,2023

Continued on page 2



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**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-70, 4-7=-70, 10-11=-20, 17-20=-20, 8-14=-20
   Concentrated Loads (lb)
   Vert: 10=-225(B) 9=-421(B) 20=-225(B) 23=-219(B) 24=-219(B)

| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | P4 | Half Hip Girder | 2 | 1 | I58837557 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:14:01 2023 Page 1
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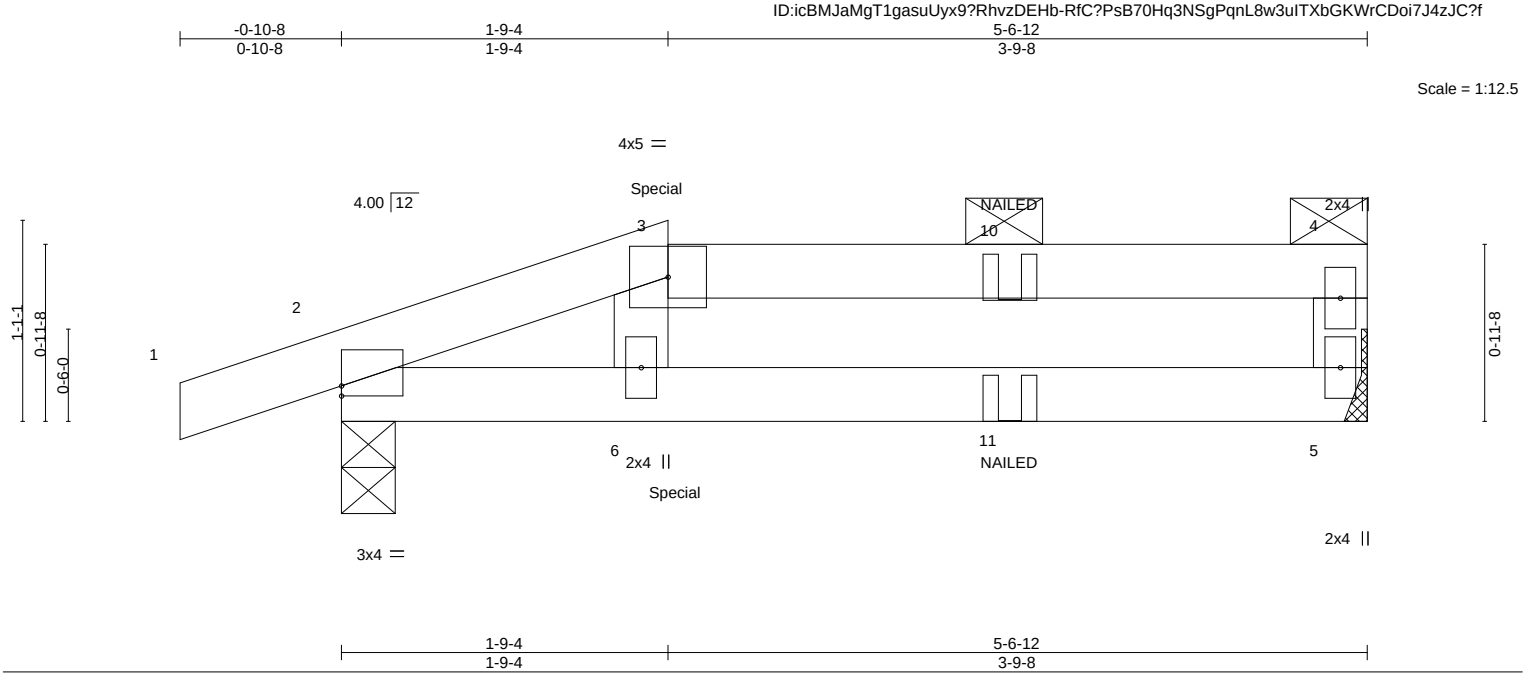


Plate Offsets (X,Y)-- [2:0-0-0,0-0-10]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.28 | Vert(LL) | -0.09 | 5-6 | >727 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.69 | Vert(CT) | -0.17 | 5-6 | >379 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.03 | Horz(CT) | 0.02 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-MP | | | | | | | Weight: 15 lb | FT = 20% |

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

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

**REACTIONS.** (size) 5=Mechanical, 2=0-3-8
Max Horz 2=29(LC 7)
Max Uplift 5=-42(LC 4), 2=-78(LC 4)
Max Grav 5=245(LC 1), 2=318(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-251/74

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 36 lb down and 58 lb up at 1-9-4 on top chord, and 23 lb down at 1-9-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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


June 12,2023



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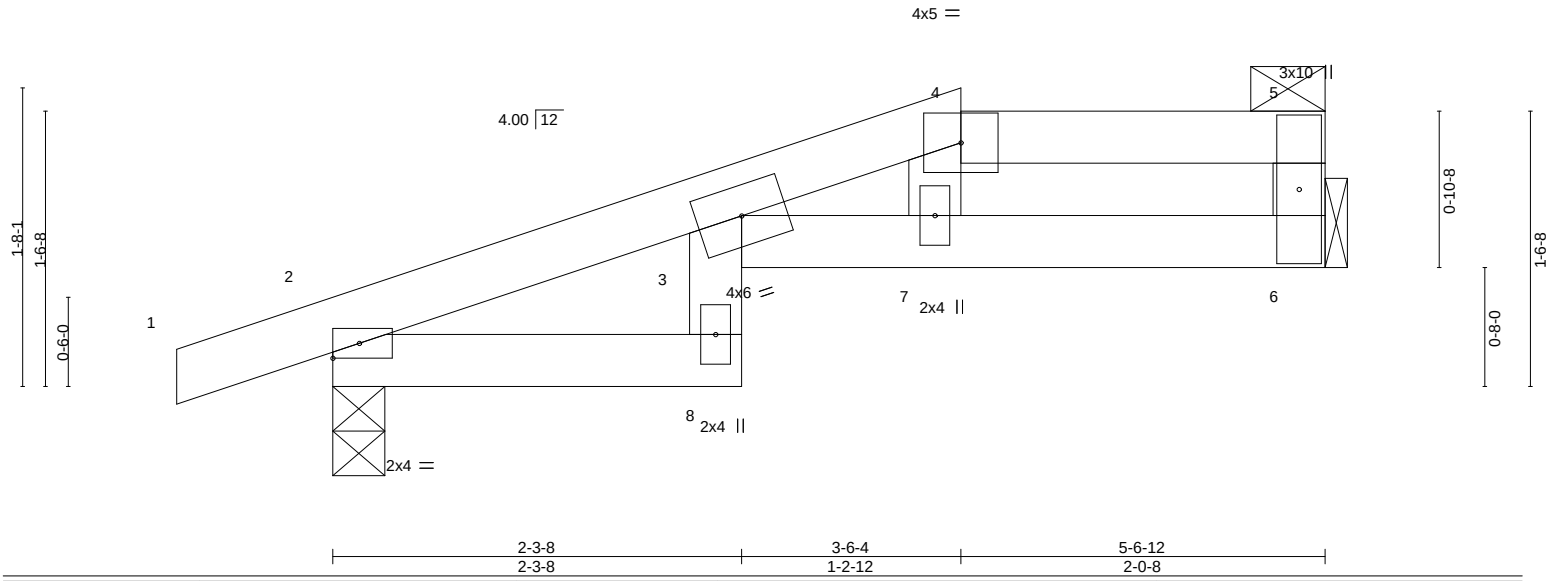
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | P5 | Half Hip | 2 | 1 | I58837558 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:14:03 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

Scale = 1:12.9




2-3-8 3-6-4 5-6-12
2-3-8 1-2-12 2-0-8

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.55 | Vert(LL) | 0.11 | 3-7 | >603 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.61 | Vert(CT) | -0.18 | 3-7 | >370 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.08 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-AS | | | | | | | Weight: 16 lb | FT = 20% |

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

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

**REACTIONS.** (size) 6=Mechanical, 2=0-3-8
Max Horz 2=41(LC 8)
Max Uplift 6=-45(LC 8), 2=-75(LC 8)
Max Grav 6=239(LC 1), 2=310(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-7=-365/262

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 3-6-4, Exterior(2E) 3-6-4 to 5-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | P6 | HALF HIP | 2 | 1 | I58837559 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:14:03 2023 Page 1
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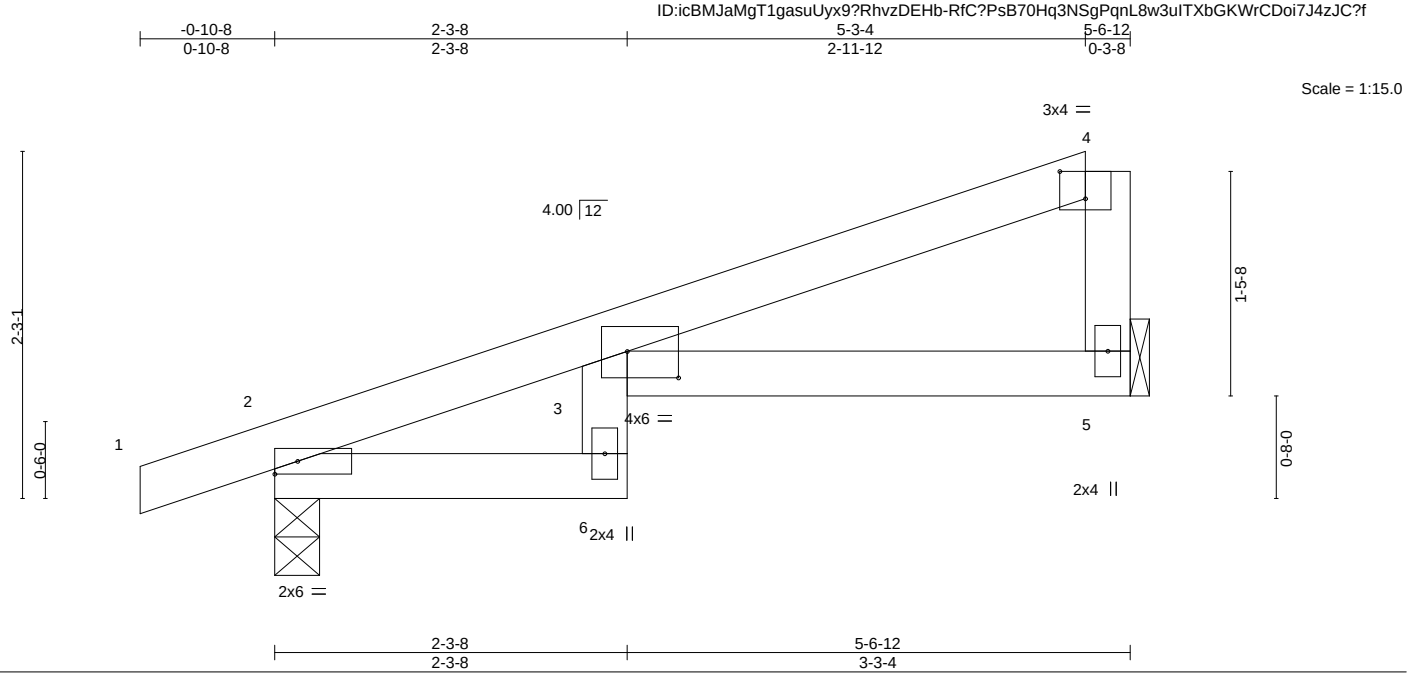


Plate Offsets (X,Y)-- [3:0-4-0,0-2-1], [4:0-2-0,0-2-2]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.51 | Vert(LL) | -0.07 | 6 | >918 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.28 | Vert(CT) | -0.12 | 6 | >511 | 180 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.07 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 16 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=Mechanical, 2=0-3-8
Max Horz 2=78(LC 8)
Max Uplift 5=-55(LC 12), 2=-70(LC 8)
Max Grav 5=230(LC 1), 2=316(LC 1)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 5-5-0 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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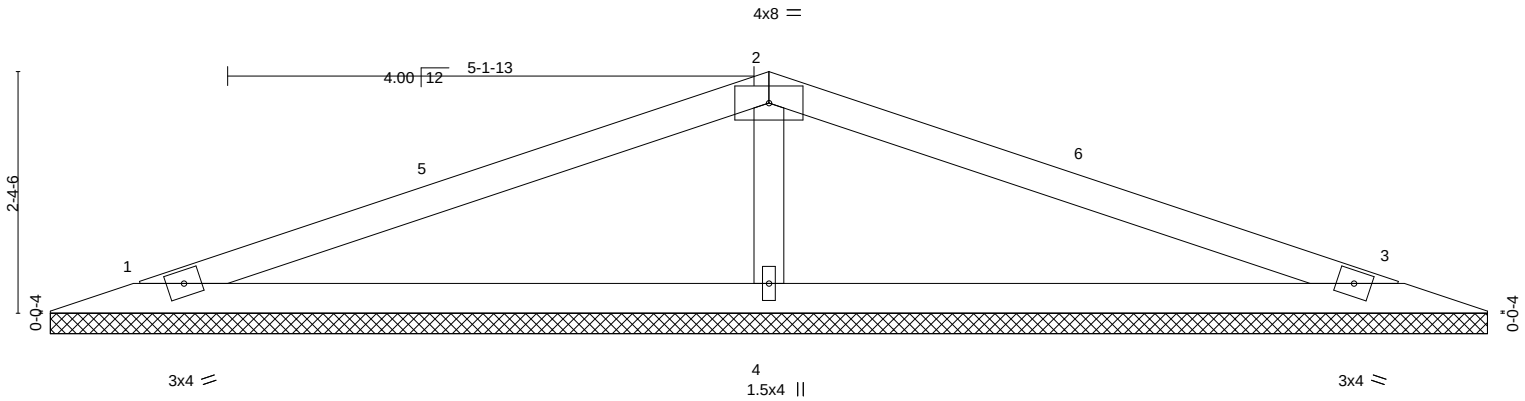
| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | V1 | Valley | 1 | 1 | I58837560 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:14:04 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

7-1-2 14-2-4
7-1-2 7-1-2

Scale = 1:22.5




0-0-12 14-2-4
0-0-12 14-1-8

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.55 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.31 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 33 lb | FT = 20% |

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

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

**REACTIONS.** (size) 1=14-0-12, 3=14-0-12, 4=14-0-12
Max Horz 1=33(LC 12)
Max Uplift 1=-49(LC 8), 3=-53(LC 13), 4=-63(LC 8)
Max Grav 1=246(LC 25), 3=246(LC 26), 4=633(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-448/206

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 3-11-5, Interior(1) 3-11-5 to 7-1-2, Exterior(2R) 7-1-2 to 10-1-2, Interior(1) 10-1-2 to 13-2-15 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
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | V2 | Valley | 1 | 1 | I58837561 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:14:05 2023 Page 1
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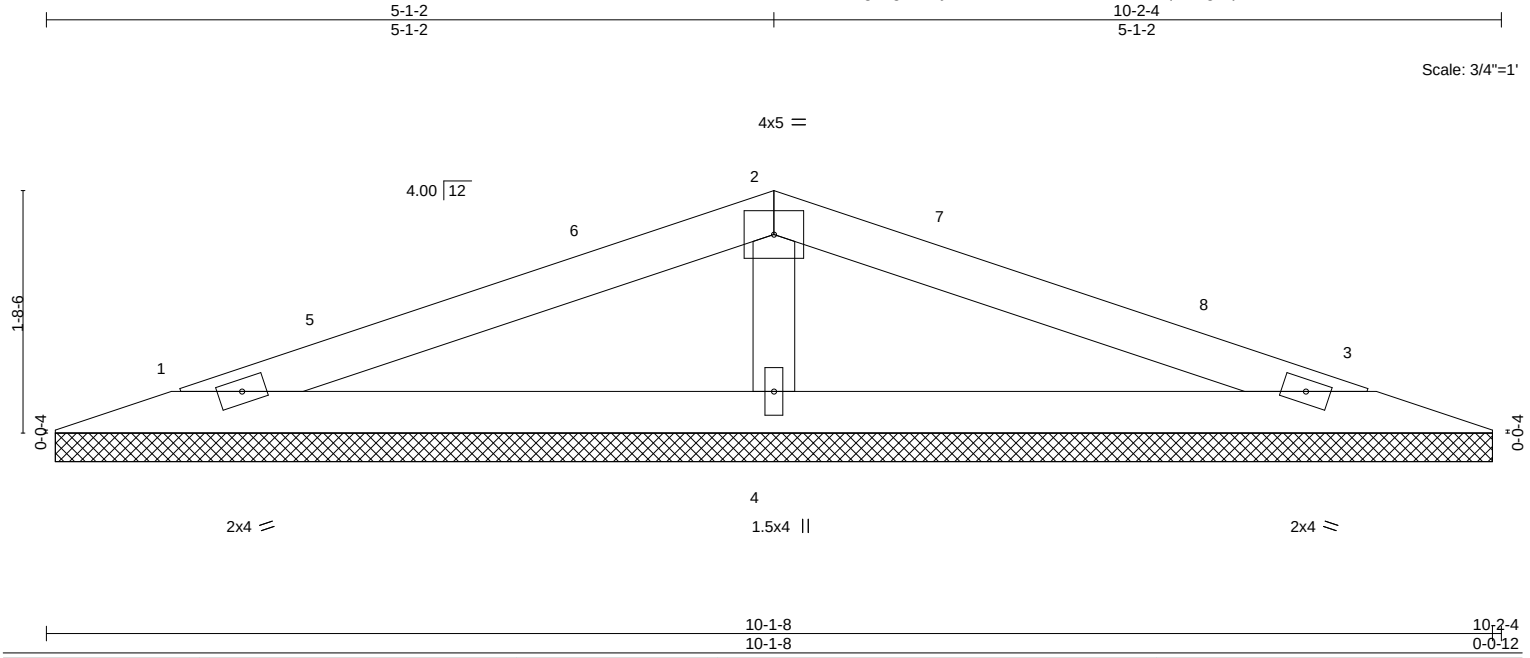


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.23 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.14 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 23 lb | FT = 20% |

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

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

**REACTIONS.** (size) 1=10-0-12, 3=10-0-12, 4=10-0-12
Max Horz 1=-22(LC 17)
Max Uplift 1=-33(LC 8), 3=-36(LC 13), 4=-42(LC 8)
Max Grav 1=166(LC 25), 3=166(LC 26), 4=427(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-302/195

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 3-11-5, Interior(1) 3-11-5 to 5-1-2, Exterior(2R) 5-1-2 to 8-1-2, Interior(1) 8-1-2 to 9-2-15 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
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


June 12,2023



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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

| Job | Truss | Truss Type | Qty | Ply | Summit/185 Highland Meadows |
|---|---|---|---|---|---|
| 3664536 | V3 | Valley | 1 | 1 | I58837562 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 8 14:14:06 2023 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

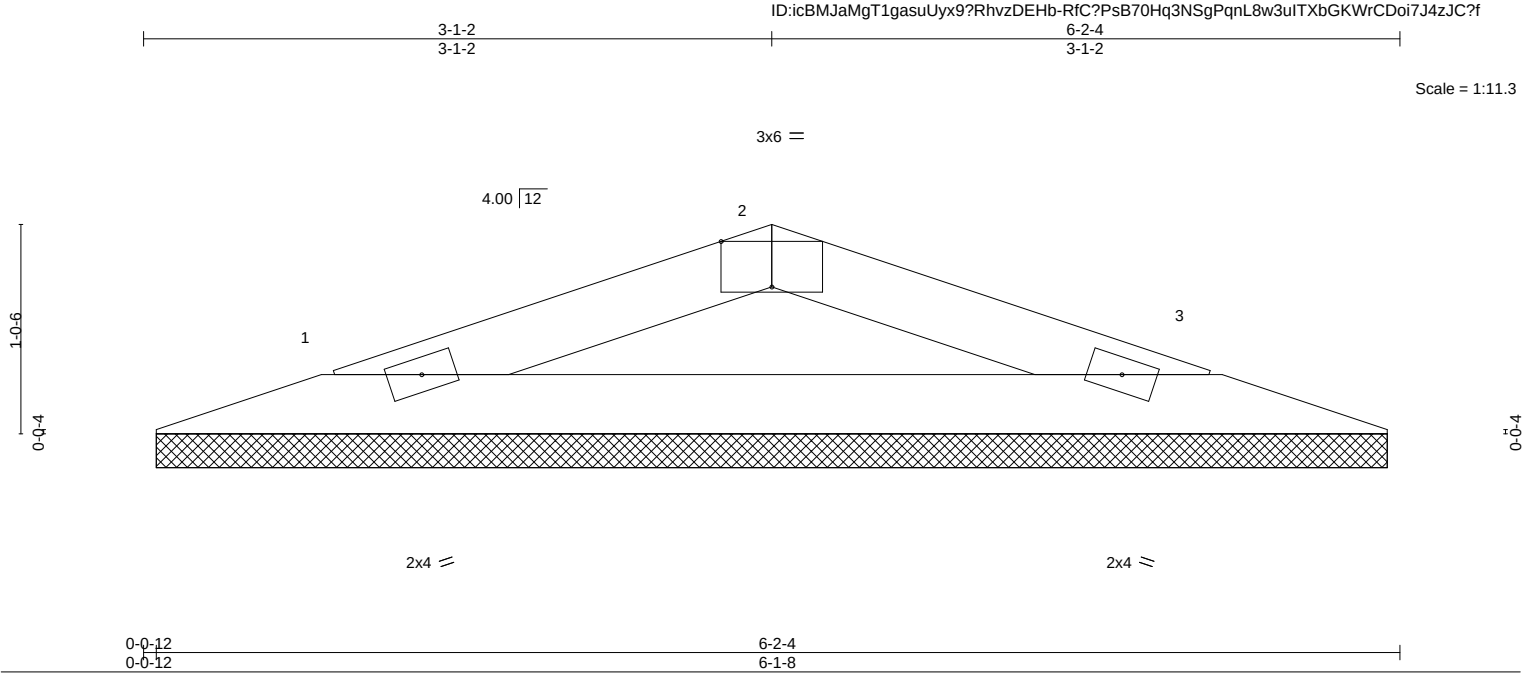


Plate Offsets (X,Y)-- [2:0-3-0,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.10 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.20 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 12 lb | FT = 20% |

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

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

**REACTIONS.** (size) 1=6-0-12, 3=6-0-12
Max Horz 1=12(LC 12)
Max Uplift 1=-28(LC 8), 3=-28(LC 9)
Max Grav 1=194(LC 1), 3=194(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-253/215, 2-3=-253/225

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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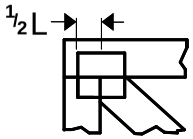
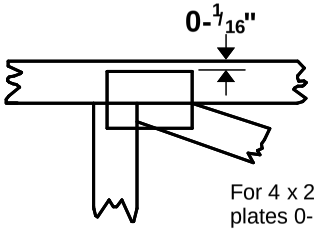
# Symbols

## PLATE LOCATION AND ORIENTATION




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




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

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

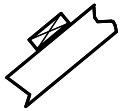
* Plate location details available in MiTek software or upon request.

## PLATE SIZE

4 x 4

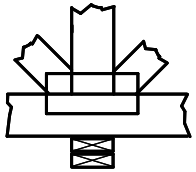
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

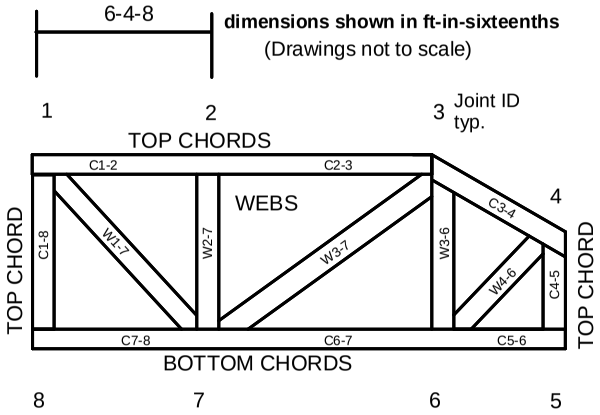


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

**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.