RE: 400279
Lot 62 MN

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

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

Design Code: IRC2018/TPI2014
Design Program: MiTek 20/20 8.2
Wind Code: N/A
Wind Speed: 115 mph
Roof Load: 45.0 psf
Floor Load: N/A psf

This package includes 78 individual, dated Truss Design Drawings and 0 Additional Drawings.

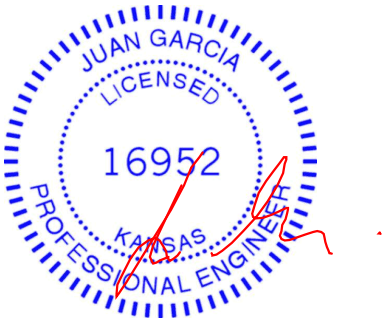
| No. | Seal# | Truss Name | Date | No. | Seal# | Truss Name | Date |
|---|---|---|---|---|---|---|---|
| 1 | I38965452 | A1 | 5/6/2020 | 27 | I38965478 | G4 | 5/6/2020 |
| 2 | I38965453 | A2 | 5/6/2020 | 28 | I38965479 | G5 | 5/6/2020 |
| 3 | I38965454 | A3 | 5/6/2020 | 29 | I38965480 | G6 | 5/6/2020 |
| 4 | I38965455 | A4 | 5/6/2020 | 30 | I38965481 | G7 | 5/6/2020 |
| 5 | I38965456 | B1 | 5/6/2020 | 31 | I38965482 | H1 | 5/6/2020 |
| 6 | I38965457 | B2 | 5/6/2020 | 32 | I38965483 | H2 | 5/6/2020 |
| 7 | I38965458 | C1 | 5/6/2020 | 33 | I38965484 | H3 | 5/6/2020 |
| 8 | I38965459 | C2 | 5/6/2020 | 34 | I38965485 | J1 | 5/6/2020 |
| 9 | I38965460 | C3 | 5/6/2020 | 35 | I38965486 | J2 | 5/6/2020 |
| 10 | I38965461 | C4 | 5/6/2020 | 36 | I38965487 | J3 | 5/6/2020 |
| 11 | I38965462 | C5 | 5/6/2020 | 37 | I38965488 | J4 | 5/6/2020 |
| 12 | I38965463 | C6 | 5/6/2020 | 38 | I38965489 | J5 | 5/6/2020 |
| 13 | I38965464 | D1 | 5/6/2020 | 39 | I38965490 | J6 | 5/6/2020 |
| 14 | I38965465 | D2 | 5/6/2020 | 40 | I38965491 | J6A | 5/6/2020 |
| 15 | I38965466 | D3 | 5/6/2020 | 41 | I38965492 | J7 | 5/6/2020 |
| 16 | I38965467 | D4 | 5/6/2020 | 42 | I38965493 | J8 | 5/6/2020 |
| 17 | I38965468 | D5 | 5/6/2020 | 43 | I38965494 | J9 | 5/6/2020 |
| 18 | I38965469 | D6 | 5/6/2020 | 44 | I38965495 | J10 | 5/6/2020 |
| 19 | I38965470 | E1 | 5/6/2020 | 45 | I38965496 | J11 | 5/6/2020 |
| 20 | I38965471 | E2 | 5/6/2020 | 46 | I38965497 | J12 | 5/6/2020 |
| 21 | I38965472 | E3 | 5/6/2020 | 47 | I38965498 | J13 | 5/6/2020 |
| 22 | I38965473 | E4 | 5/6/2020 | 48 | I38965499 | J14 | 5/6/2020 |
| 23 | I38965474 | E5 | 5/6/2020 | 49 | I38965500 | J15 | 5/6/2020 |
| 24 | I38965475 | G1 | 5/6/2020 | 50 | I38965501 | J16 | 5/6/2020 |
| 25 | I38965476 | G2 | 5/6/2020 | 51 | I38965502 | J17 | 5/6/2020 |
| 26 | I38965477 | G3 | 5/6/2020 | 52 | I38965503 | J18 | 5/6/2020 |

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

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Kansas is April 30, 2022.

Kansas COA: E-943




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.

May 06, 2020

Garcia, Juan

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

RE: 400279 - Lot 62 MN

**Site Information:**

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

| No. | Seal# | Truss Name | Date |
|---|---|---|---|
| 53 | I38965504 | J19 | 5/6/2020 |
| 54 | I38965505 | J20 | 5/6/2020 |
| 55 | I38965506 | J21 | 5/6/2020 |
| 56 | I38965507 | J22 | 5/6/2020 |
| 57 | I38965508 | J23 | 5/6/2020 |
| 58 | I38965509 | J24 | 5/6/2020 |
| 59 | I38965510 | J25 | 5/6/2020 |
| 60 | I38965511 | K1 | 5/6/2020 |
| 61 | I38965512 | K2 | 5/6/2020 |
| 62 | I38965513 | K3 | 5/6/2020 |
| 63 | I38965514 | K4 | 5/6/2020 |
| 64 | I38965515 | K5 | 5/6/2020 |
| 65 | I38965516 | K6 | 5/6/2020 |
| 66 | I38965517 | LAY1 | 5/6/2020 |
| 67 | I38965518 | LAY2 | 5/6/2020 |
| 68 | I38965519 | LAY3 | 5/6/2020 |
| 69 | I38965520 | LAY4 | 5/6/2020 |
| 70 | I38965521 | LAY5 | 5/6/2020 |
| 71 | I38965522 | R1 | 5/6/2020 |
| 72 | I38965523 | V1 | 5/6/2020 |
| 73 | I38965524 | V2 | 5/6/2020 |
| 74 | I38965525 | V3 | 5/6/2020 |
| 75 | I38965526 | V4 | 5/6/2020 |
| 76 | I38965527 | V5 | 5/6/2020 |
| 77 | I38965528 | V6 | 5/6/2020 |
| 78 | I38965529 | V7 | 5/6/2020 |

RE: 400279
Lot 62 MN

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

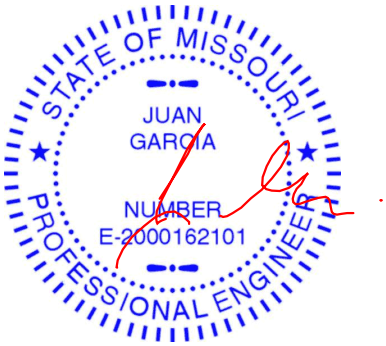
**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: IRC2018/TPI2014
Design Program: MiTek 20/20 8.2
Wind Code: N/A
Wind Speed: 115 mph
Roof Load: 45.0 psf
Floor Load: N/A psf

This package includes 78 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal# | Truss Name | Date | No. | Seal# | Truss Name | Date |
|---|---|---|---|---|---|---|---|
| 1 | I38965452 | A1 | 5/6/2020 | 27 | I38965478 | G4 | 5/6/2020 |
| 2 | I38965453 | A2 | 5/6/2020 | 28 | I38965479 | G5 | 5/6/2020 |
| 3 | I38965454 | A3 | 5/6/2020 | 29 | I38965480 | G6 | 5/6/2020 |
| 4 | I38965455 | A4 | 5/6/2020 | 30 | I38965481 | G7 | 5/6/2020 |
| 5 | I38965456 | B1 | 5/6/2020 | 31 | I38965482 | H1 | 5/6/2020 |
| 6 | I38965457 | B2 | 5/6/2020 | 32 | I38965483 | H2 | 5/6/2020 |
| 7 | I38965458 | C1 | 5/6/2020 | 33 | I38965484 | H3 | 5/6/2020 |
| 8 | I38965459 | C2 | 5/6/2020 | 34 | I38965485 | J1 | 5/6/2020 |
| 9 | I38965460 | C3 | 5/6/2020 | 35 | I38965486 | J2 | 5/6/2020 |
| 10 | I38965461 | C4 | 5/6/2020 | 36 | I38965487 | J3 | 5/6/2020 |
| 11 | I38965462 | C5 | 5/6/2020 | 37 | I38965488 | J4 | 5/6/2020 |
| 12 | I38965463 | C6 | 5/6/2020 | 38 | I38965489 | J5 | 5/6/2020 |
| 13 | I38965464 | D1 | 5/6/2020 | 39 | I38965490 | J6 | 5/6/2020 |
| 14 | I38965465 | D2 | 5/6/2020 | 40 | I38965491 | J6A | 5/6/2020 |
| 15 | I38965466 | D3 | 5/6/2020 | 41 | I38965492 | J7 | 5/6/2020 |
| 16 | I38965467 | D4 | 5/6/2020 | 42 | I38965493 | J8 | 5/6/2020 |
| 17 | I38965468 | D5 | 5/6/2020 | 43 | I38965494 | J9 | 5/6/2020 |
| 18 | I38965469 | D6 | 5/6/2020 | 44 | I38965495 | J10 | 5/6/2020 |
| 19 | I38965470 | E1 | 5/6/2020 | 45 | I38965496 | J11 | 5/6/2020 |
| 20 | I38965471 | E2 | 5/6/2020 | 46 | I38965497 | J12 | 5/6/2020 |
| 21 | I38965472 | E3 | 5/6/2020 | 47 | I38965498 | J13 | 5/6/2020 |
| 22 | I38965473 | E4 | 5/6/2020 | 48 | I38965499 | J14 | 5/6/2020 |
| 23 | I38965474 | E5 | 5/6/2020 | 49 | I38965500 | J15 | 5/6/2020 |
| 24 | I38965475 | G1 | 5/6/2020 | 50 | I38965501 | J16 | 5/6/2020 |
| 25 | I38965476 | G2 | 5/6/2020 | 51 | I38965502 | J17 | 5/6/2020 |
| 26 | I38965477 | G3 | 5/6/2020 | 52 | I38965503 | J18 | 5/6/2020 |

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc under my direct supervision based on the parameters provided by Wheeler - Waverly.
Truss Design Engineer's Name: Garcia, Juan
My license renewal date for the state of Missouri is December 31, 2020.
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.

May 06, 2020
Garcia, Juan

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

RE: 400279 - Lot 62 MN

**Site Information:**

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

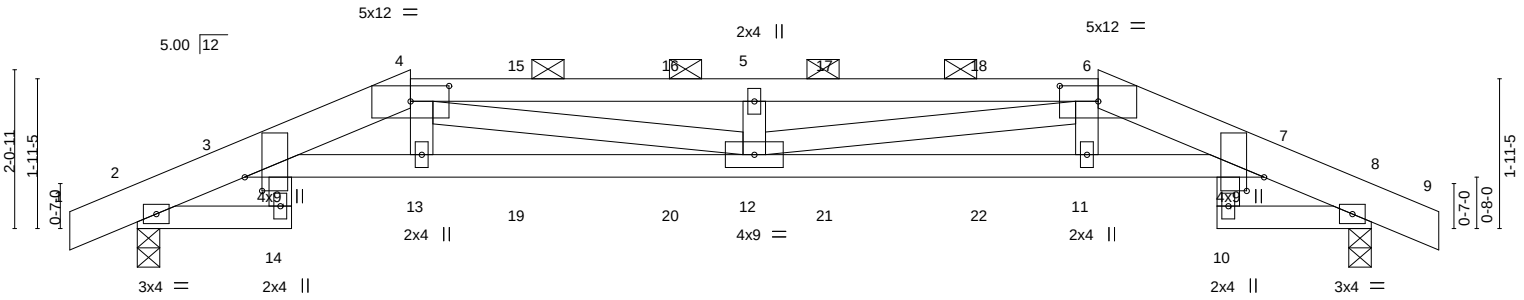
| No. | Seal# | Truss Name | Date |
|---|---|---|---|
| 53 | I38965504 | J19 | 5/6/2020 |
| 54 | I38965505 | J20 | 5/6/2020 |
| 55 | I38965506 | J21 | 5/6/2020 |
| 56 | I38965507 | J22 | 5/6/2020 |
| 57 | I38965508 | J23 | 5/6/2020 |
| 58 | I38965509 | J24 | 5/6/2020 |
| 59 | I38965510 | J25 | 5/6/2020 |
| 60 | I38965511 | K1 | 5/6/2020 |
| 61 | I38965512 | K2 | 5/6/2020 |
| 62 | I38965513 | K3 | 5/6/2020 |
| 63 | I38965514 | K4 | 5/6/2020 |
| 64 | I38965515 | K5 | 5/6/2020 |
| 65 | I38965516 | K6 | 5/6/2020 |
| 66 | I38965517 | LAY1 | 5/6/2020 |
| 67 | I38965518 | LAY2 | 5/6/2020 |
| 68 | I38965519 | LAY3 | 5/6/2020 |
| 69 | I38965520 | LAY4 | 5/6/2020 |
| 70 | I38965521 | LAY5 | 5/6/2020 |
| 71 | I38965522 | R1 | 5/6/2020 |
| 72 | I38965523 | V1 | 5/6/2020 |
| 73 | I38965524 | V2 | 5/6/2020 |
| 74 | I38965525 | V3 | 5/6/2020 |
| 75 | I38965526 | V4 | 5/6/2020 |
| 76 | I38965527 | V5 | 5/6/2020 |
| 77 | I38965528 | V6 | 5/6/2020 |
| 78 | I38965529 | V7 | 5/6/2020 |

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | A1 | HIP GIRDER | 1 | 2 | I38965452 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 — 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:34 2019 Page 1
ID:0wpcF2OVQmpO8KfbvhbxsjzTP7M-E1LafyqRQDuPGljPU6nTYa1sUkiovYaoyrCClBySCbZ

| -0-10-8 | 2-0-0 | 3-6-8 | 8-0-0 | 12-5-8 | 14-0-0 | 16-0-0 | 16-10-8 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 2-0-0 | 1-6-8 | 4-5-8 | 4-5-8 | 1-6-8 | 2-0-0 | 0-10-8 |

Scale = 1:29.9




| 2-0-0 | 3-6-8 | 8-0-0 | 12-5-8 | 14-0-0 | 16-0-0 |
|---|---|---|---|---|---|
| 2-0-0 | 1-6-8 | 4-5-8 | 4-5-8 | 1-6-8 | 2-0-0 |

Plate Offsets (X,Y)-- [3:0-2-2,0-2-11], [4:0-6-0,0-2-6], [6:0-6-0,0-2-6], [7:0-2-2,0-2-11]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.52 | Vert(LL) | -0.14 | 12 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.55 | Vert(CT) | -0.26 | 12 | >721 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.14 | Horz(CT) | 0.14 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.11 | 12 | >999 | 240 | Weight: 120 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x6 SPF No.2 *Except* 4-6: 2x4 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 2-0-0 oc purlins (5-9-15 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=1121/0-3-8, 8=1121/0-3-8
Max Horz 2=32(LC 29)
Max Uplift 2=-173(LC 4), 8=-173(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-538/100, 3-4=-3255/474, 4-5=-4258/624, 5-6=-4258/624, 6-7=-3255/474, 7-8=-538/101
BOT CHORD 3-13=-423/3148, 12-13=-420/3195, 11-12=-419/3195, 7-11=-422/3148
WEBS 4-13=0/321, 4-12=-160/1147, 5-12=-334/163, 6-12=-160/1147, 6-11=0/321

**NOTES-**
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 173 lb uplift at joint 2 and 173 lb uplift at joint 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.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 65 lb down and 45 lb up at 3-6-8, 71 lb down and 45 lb up at 5-0-0, 71 lb down and 45 lb up at 7-0-0, 71 lb down and 45 lb up at 9-0-0, and 71 lb down and 45 lb up at 11-0-0, and 65 lb down and 45 lb up at 12-5-8 on top chord, and 203 lb down and 64 lb up at 3-6-8, 41 lb down at 5-0-0, 41 lb down at 7-0-0, 41 lb down at 9-0-0, and 41 lb down at 11-0-0, and 203 lb down and 64 lb up at 12-4-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



October 18,2019

Continued on page 2

**LOAD CASE(S)** Standard



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-70, 4-6=-70, 6-9=-70, 2-14=-20, 3-7=-20, 8-10=-20
   Concentrated Loads (lb)
   Vert: 4=-16(F) 6=-16(F) 13=-203(F) 11=-203(F) 15=-16(F) 16=-16(F) 17=-16(F) 18=-16(F) 19=-41(F) 20=-41(F) 21=-41(F) 22=-41(F)




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

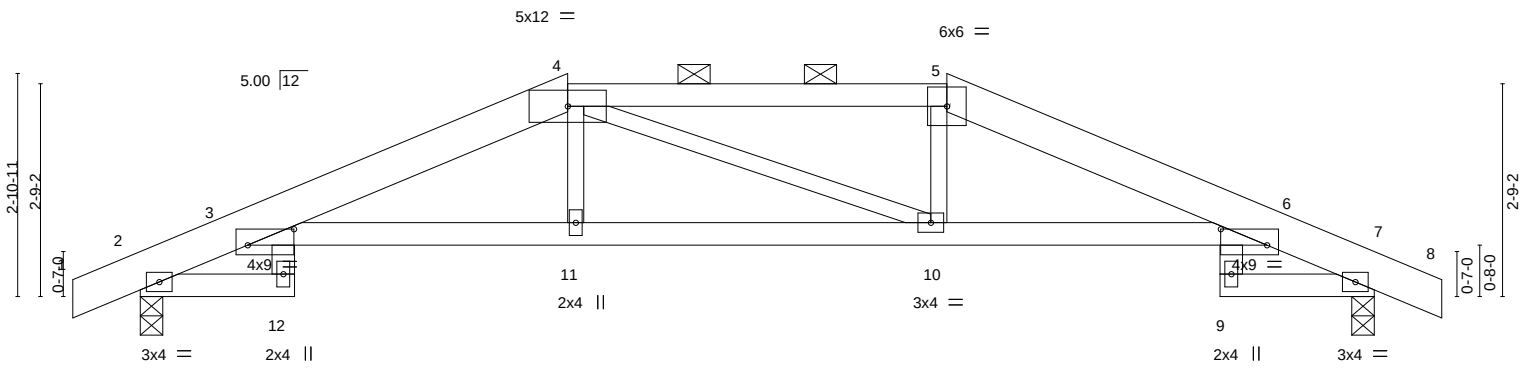
| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | A2 | Hip | 1 | 1 | I38965453 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 — 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:36 2019 Page 1

ID:0wpcF2OVQmpO8KfbvhbxsjzTP7M-AQSK4eriyq87V3tocXpxd?6BiYNQNSu5Q9hJq4ySCbX

| -0-10-8 | 2-0-0 | 5-6-8 | 10-5-8 | 14-0-0 | 16-0-0 | 16-10-8 |
|---|---|---|---|---|---|---|
| 0-10-8 | 2-0-0 | 3-6-8 | 4-11-0 | 3-6-8 | 2-0-0 | 0-10-8 |

Scale = 1:29.9




| 2-0-0 | 5-6-8 | 10-5-8 | 14-0-0 | 16-0-0 |
|---|---|---|---|---|
| 2-0-0 | 3-6-8 | 4-11-0 | 3-6-8 | 2-0-0 |

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

| 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 | 0.61 | Vert(LL) | -0.10 | 11 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.60 | Vert(CT) | -0.19 | 3-11 | >972 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.18 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 3-11 | >999 | 240 | Weight: 58 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x6 SPF No.2 *Except* 4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 3-12,6-9: 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-4-9 oc purlins, except 2-0-0 oc purlins (4-6-1 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=789/0-3-8, 7=789/0-3-8
Max Horz 2=-47(LC 13)
Max Uplift 2=-93(LC 4), 7=-93(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-362/65, 3-4=-1554/171, 4-5=-1452/172, 5-6=-1554/166, 6-7=-362/59
BOT CHORD 3-11=-109/1446, 10-11=-105/1452, 6-10=-103/1446

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 2 and 93 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

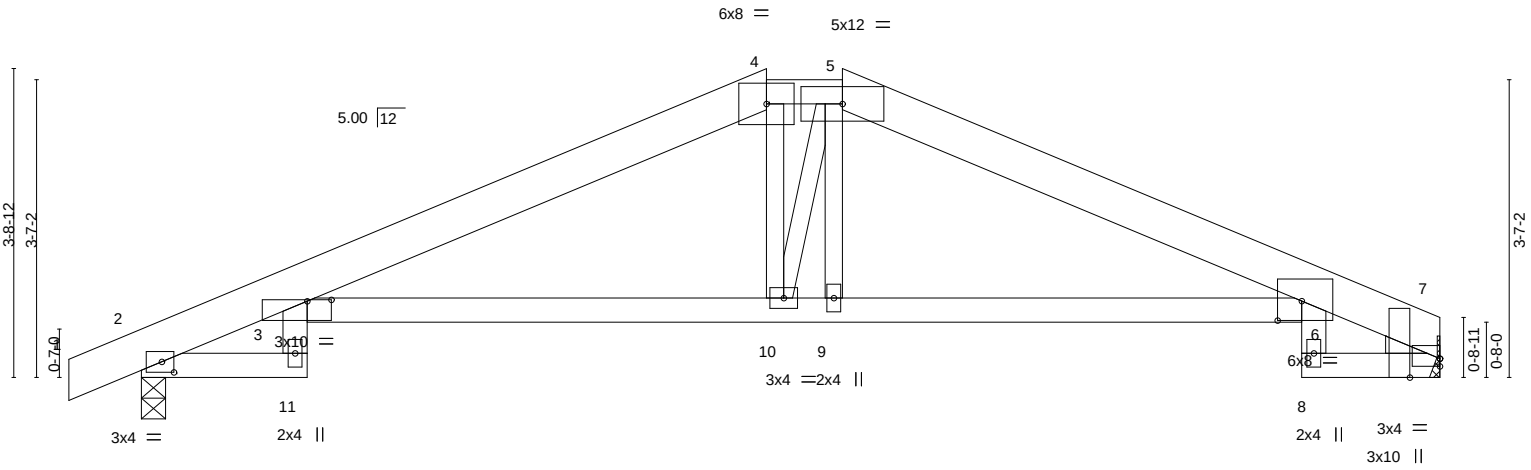
| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | A3 | Hip | 1 | 1 | I38965454 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 — 8.240 s Jul 27 2019 MiTek Industries, Inc. Fri Oct 18 14:41:51 2019 Page 1

ID:0wpcF2OVQmpO8KfbvhbxsjzTP7M-8YixL0JFlIZIcbcqtO1JZWzLwMSCzPt?v1wWRpyS8w_

| -0-10-8 | 2-0-0 | 7-6-8 | 8-5-8 | 14-0-0 | 15-8-0 |
|---|---|---|---|---|---|
| 0-10-8 | 2-0-0 | 5-6-8 | 0-11-0 | 5-6-8 | 1-8-0 |

Scale = 1:27.8




| 2-0-0 | 7-6-8 | 8-5-8 | 14-0-0 | 15-8-0 |
|---|---|---|---|---|
| 2-0-0 | 5-6-8 | 0-11-0 | 5-6-8 | 1-8-0 |

Plate Offsets (X,Y)-- [2:0-1-12,0-1-8], [3:0-3-8,0-0-3], [6:0-3-8,0-2-13], [7:0-0-0,0-1-2], [7:0-2-12,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 | 0.89 | Vert(LL) | -0.20 | 3-10 | >915 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.61 | Vert(CT) | -0.38 | 3-10 | >485 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.33 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.15 | 3-10 | >999 | 240 | Weight: 58 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x6 SPF No.2 *Except* 4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 3-11,6-8: 2x4 SPF No.2
WEDGE
Right: 2x3 SPF No.2

**BRACING-**

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

**REACTIONS.** (lb/size) 2=769/0-3-8, 7=693/Mechanical
Max Horz 2=65(LC 8)
Max Uplift 2=-111(LC 8), 7=-84(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-354/81, 3-4=-1225/110, 4-5=-1133/142, 5-6=-1212/108, 6-7=-397/64
BOT CHORD 3-10=-72/1134, 9-10=-38/1121, 6-9=-41/1121
WEBS 5-10=-190/256

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 2 and 84 lb uplift at joint 7.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | A4 | COMMON | 1 | 1 | I38965455 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 — 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:40 2019 Page 1

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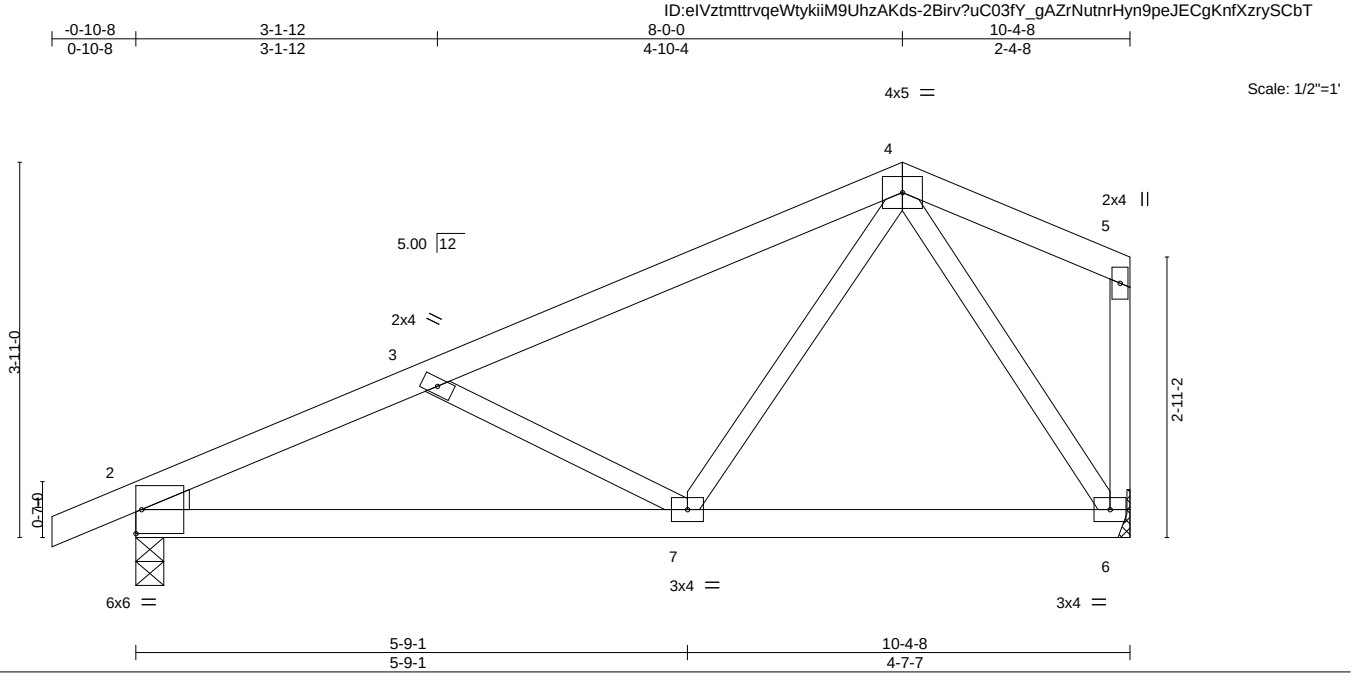


Plate Offsets (X,Y)-- [2:0-0-6,0-0-2], [2:0-4-11,0-0-5]

| 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 | 0.28 | Vert(LL) | -0.03 | 2-7 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.27 | Vert(CT) | -0.06 | 2-7 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.20 | Horz(CT) | 0.01 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.01 | 7 | >999 | 240 | Weight: 37 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2

**BRACING-**

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

**REACTIONS.** (lb/size) 2=531/0-3-8, 6=452/Mechanical
Max Horz 2=116(LC 5)
Max Uplift 2=-93(LC 8), 6=-61(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-766/156, 3-4=-496/73
BOT CHORD 2-7=-178/652
WEBS 3-7=-303/177, 4-7=-16/320, 4-6=-426/78

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 2 and 61 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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | B1 | Common Supported Gable | 1 | 1 | I38965456 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:41 2019 Page 1
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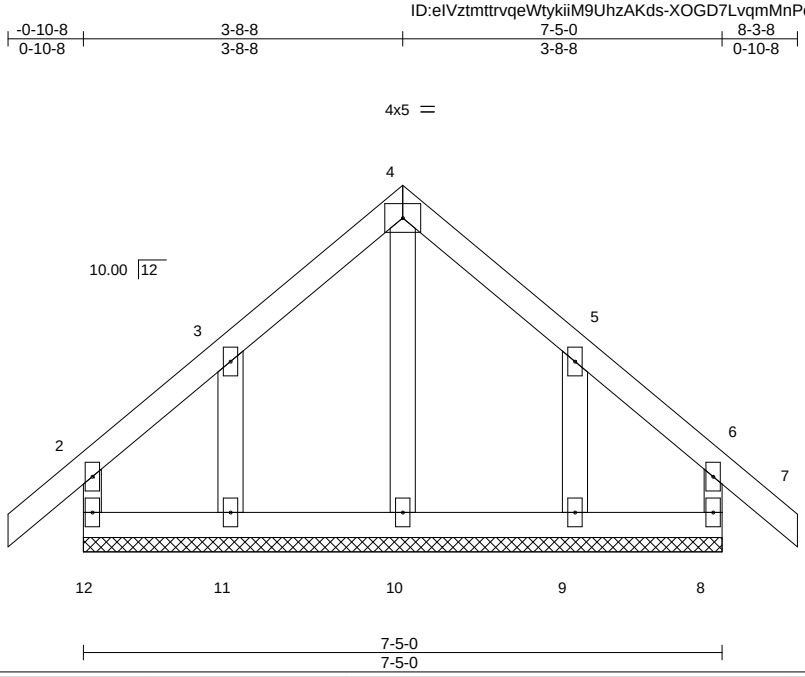


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.07 | Vert(LL) | -0.00 | 7 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | -0.00 | 7 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | -0.00 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 32 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** All bearings 7-5-0.
(lb) - Max Horz 12=-128(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 12, 8 except 11=-105(LC 8), 9=-103(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 12, 8, 10, 11, 9

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

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 8 except (jt=lb) 11=105, 9=103.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | B2 | Common | 2 | 1 | I38965457 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:43 2019 Page 1
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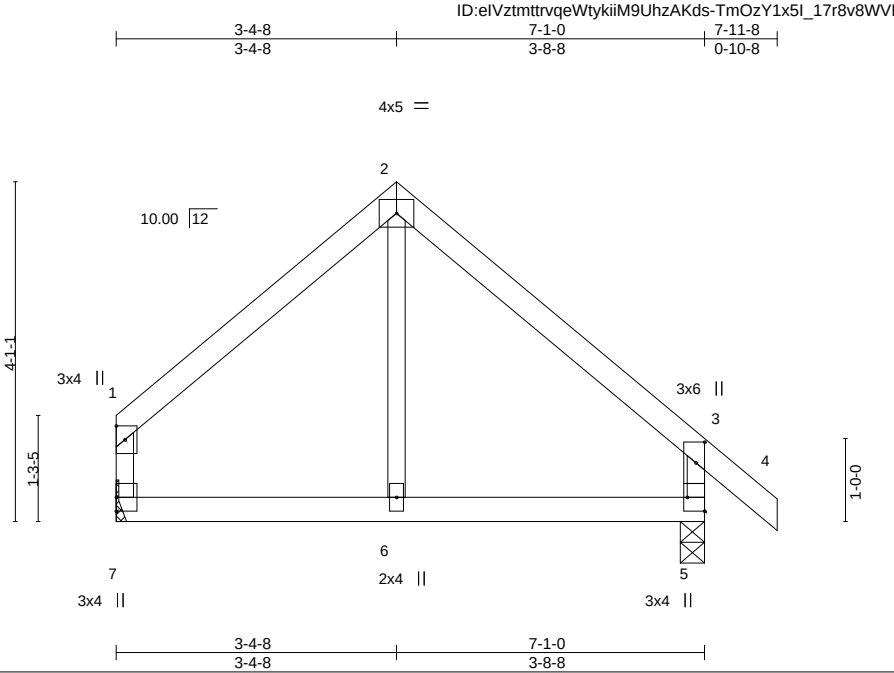


Plate Offsets (X,Y)-- [3:0-3-0,0-1-4], [5:Edge,0-2-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.27 | Vert(LL) | -0.01 | 6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.15 | Vert(CT) | -0.03 | 6 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 5-6 | >999 | 240 | Weight: 24 lb | FT = 10% |

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

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

**REACTIONS.** (lb/size) 7=304/Mechanical, 5=383/0-3-8
Max Horz 7=-125(LC 4)
Max Uplift 7=-30(LC 9), 5=-51(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-261/70, 2-3=-272/67, 3-5=-329/83

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) 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) 7, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | C1 | Common Supported Gable | 1 | 1 | I38965458 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:45 2019 Page 1
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0-10-8 8-8-0 8-8-0 0-10-8

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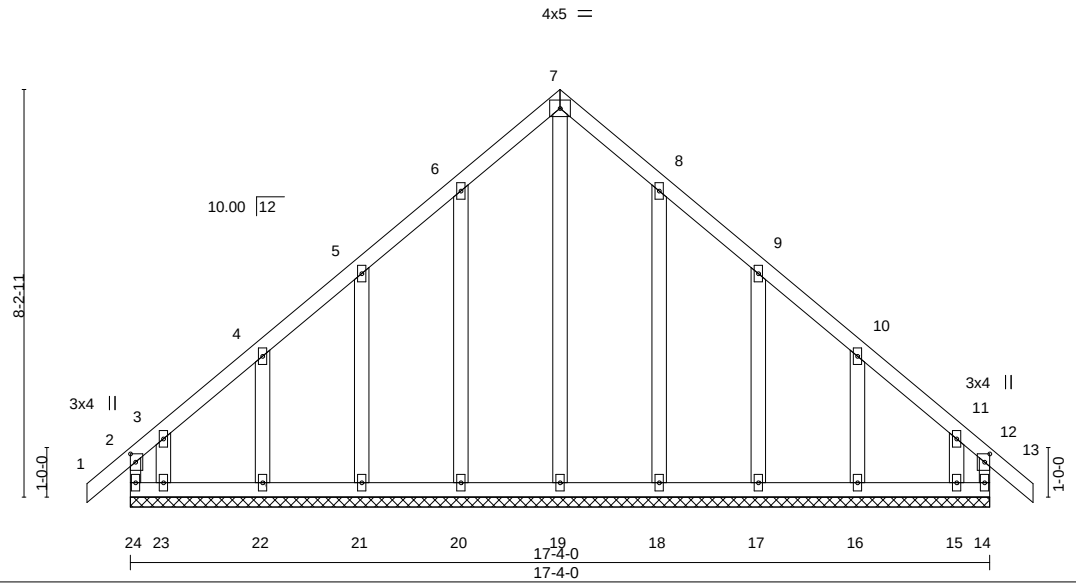



Plate Offsets (X,Y)-- [2:0-2-0,0-1-4], [12:0-2-0,0-1-4]

| 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 | 0.15 | Vert(LL) | -0.00 | 13 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | -0.00 | 13 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.26 | Horz(CT) | 0.00 | 14 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 90 lb | FT = 10% |

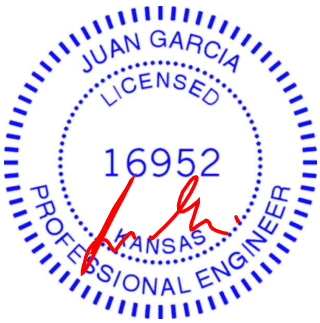
**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x4 SPF No.2

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

**REACTIONS.** All bearings 17-4-0.
(lb) - Max Horz 24=-236(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 20, 21, 22, 18, 17, 16 except 24=-221(LC 4), 14=-172(LC 5), 23=-218(LC 8), 15=-202(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 14, 20, 21, 22, 18, 17, 16, 15 except 24=269(LC 5), 19=263(LC 9), 23=259(LC 6)

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

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 21, 22, 18, 17, 16 except (jt=lb) 24=221, 14=172, 23=218, 15=202.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | C2 | Common | 1 | 1 | I38965459 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:46 2019 Page 1
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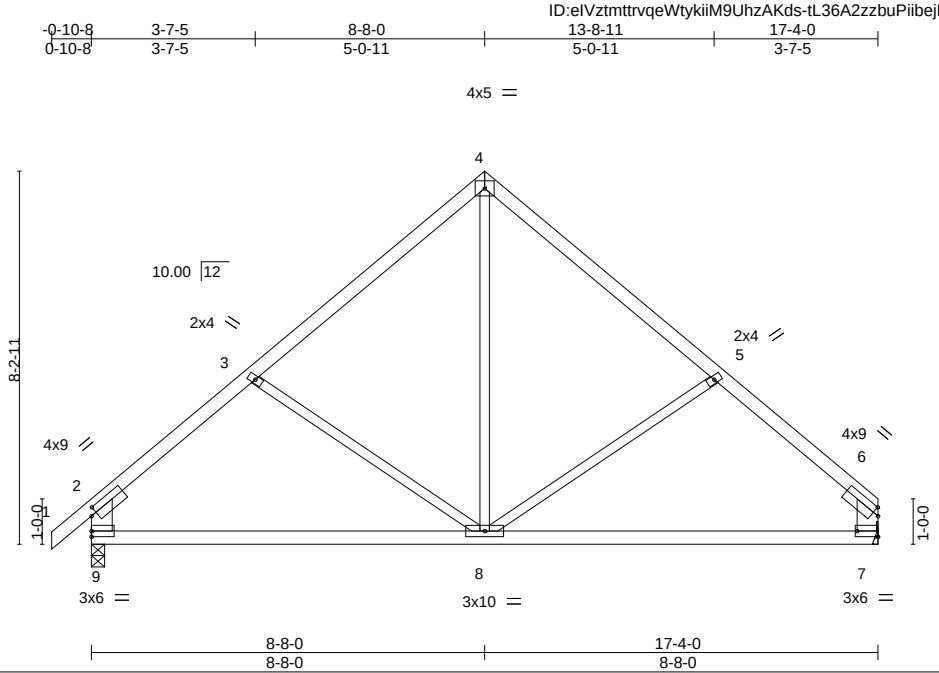


Plate Offsets (X,Y)-- [2:0-1-9,0-1-12], [6:0-1-9,0-1-12], [7:Edge,0-1-8]

| 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 | 0.63 | Vert(LL) | -0.10 | 8-9 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.52 | Vert(CT) | -0.21 | 8-9 | >967 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.20 | Horz(CT) | 0.02 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.05 | 8 | >999 | 240 | Weight: 66 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 9=839/0-3-8, 7=757/Mechanical
Max Horz 9=232(LC 5)
Max Uplift 9=-99(LC 8), 7=-73(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-847/136, 3-4=-639/154, 4-5=-639/154, 5-6=-852/136, 2-9=-745/140, 6-7=-658/113
BOT CHORD 8-9=-149/612, 7-8=-56/560
WEBS 4-8=-45/394

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) 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) 9, 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 18,2019



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | C3 | Roof Special | 5 | 1 | I38965460 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:47 2019 Page 1
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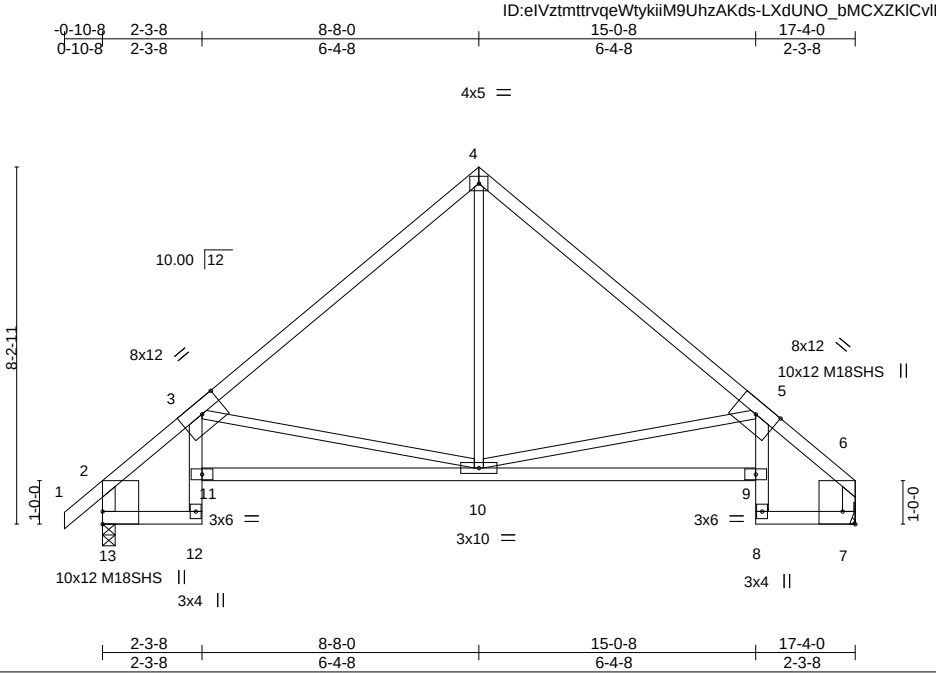


Plate Offsets (X,Y)-- [2:0-1-7,0-1-12], [6:Edge,0-3-8], [6:0-1-7,0-1-12], [7:0-0-0,0-1-12], [13:0-0-0,0-1-12]

| 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 | 0.54 | Vert(LL) | -0.09 | 9-10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.92 | Vert(CT) | -0.19 | 9-10 | >999 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.69 | Horz(CT) | 0.18 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.05 | 10-11 | >999 | 240 | Weight: 70 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13,6-7: 2x4 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-1-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 13=840/0-3-8, 7=765/Mechanical
Max Horz 13=184(LC 7)
Max Uplift 13=-7(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-837/28, 3-4=-816/55, 4-5=-817/66, 5-6=-825/21, 2-13=-766/22, 6-7=-667/1
BOT CHORD 12-13=-90/572, 10-11=-147/1130, 9-10=-56/1057, 7-8=-12/518
WEBS 4-10=0/452, 5-10=-590/185, 3-10=-632/211

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) The Fabrication Tolerance at joint 6 = 6%, joint 2 = 6%, joint 6 = 6%, joint 13 = 6%
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | C4 | Half Hip | 1 | 1 | I38965461 |
| | | | | | Job Reference (optional) |

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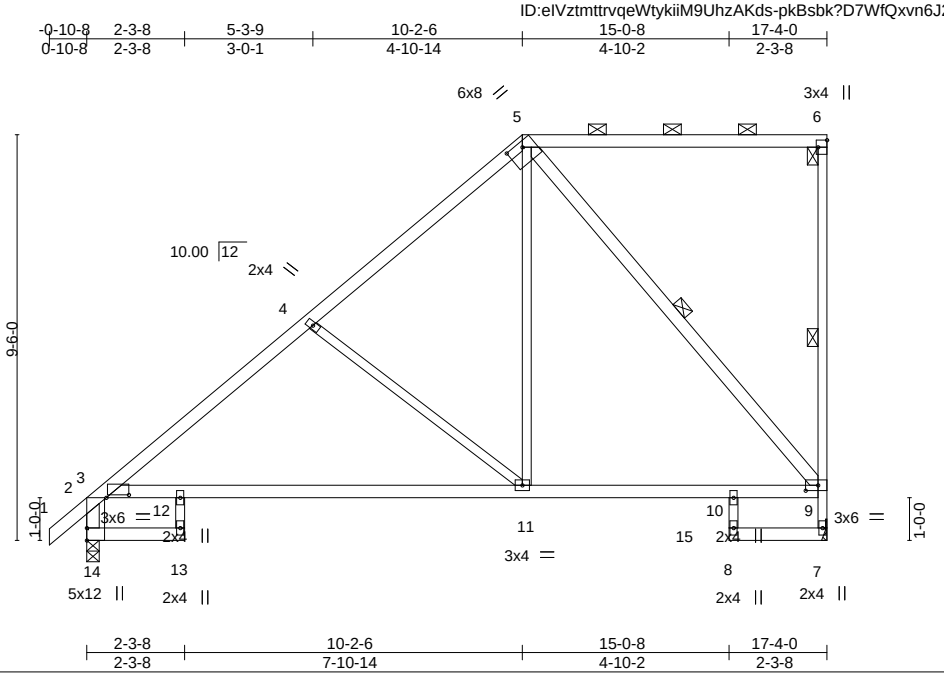


Plate Offsets (X,Y)-- [2:0-1-7,0-1-12], [3:0-6-6,0-0-13], [5:0-4-8,0-1-8], [6:Edge,0-2-8], [9:0-3-8,0-1-8], [14:0-0-0,0-1-12]

| 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 | 0.79 | Vert(LL) | -0.22 | 11-12 | >913 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.80 | Vert(CT) | -0.48 | 11-12 | >426 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.44 | Horz(CT) | 0.19 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.22 | 11-12 | >937 | 240 | Weight: 81 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF 2400F 2.0E *Except* 5-6: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 5-9,2-14: 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.): 5-6.
BOT CHORD Rigid ceiling directly applied or 9-7-12 oc bracing.
WEBS 1 Row at midpt 6-7, 5-9

**REACTIONS.** (lb/size) 7=767/Mechanical, 14=842/0-3-8
Max Horz 14=362(LC 8)
Max Uplift 7=-149(LC 5), 14=-41(LC 8)
Max Grav 7=859(LC 2), 14=920(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-517/0, 3-4=-963/110, 4-5=-719/87, 7-9=-820/161, 2-14=-894/122
BOT CHORD 3-12=-356/819, 11-12=-356/819, 10-11=-125/490, 9-10=-125/490
WEBS 5-11=-89/677, 5-9=-740/193, 4-11=-427/293

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) The Fabrication Tolerance at joint 5 = 6%
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14 except (jt=lb) 7=149.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | C5 | Half Hip | 1 | 1 | I38965462 |
| | | | | | Job Reference (optional) |

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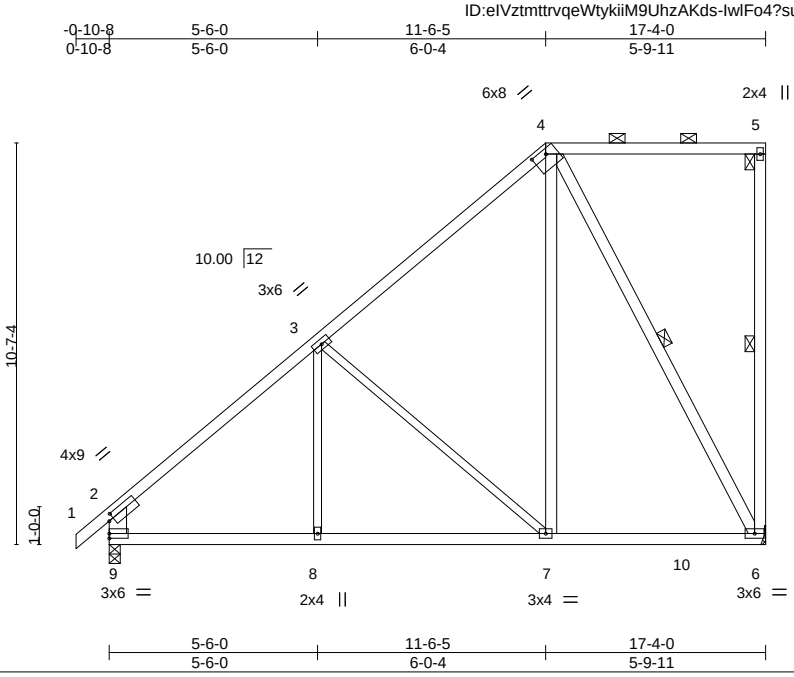


Plate Offsets (X,Y)-- [2:0-1-9,0-1-12], [4:0-4-8,0-1-8]

| 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 | 0.60 | Vert(LL) | -0.07 | 7-8 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.49 | Vert(CT) | -0.13 | 7-8 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.70 | Horz(CT) | 0.01 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.01 | 8-9 | >999 | 240 | Weight: 92 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-8,3-7: 2x3 SPF No.2, 2-9: 2x6 SPF No.2

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

**REACTIONS.** (lb/size) 6=761/Mechanical, 9=843/0-3-8
Max Horz 9=406(LC 8)
Max Uplift 6=-186(LC 8), 9=-25(LC 8)
Max Grav 6=822(LC 2), 9=897(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-891/4, 3-4=-527/39, 2-9=-777/68
BOT CHORD 8-9=-303/675, 7-8=-303/675, 6-7=-104/346
WEBS 3-7=-442/262, 4-7=-86/567, 4-6=-708/216

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
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) 9 except (jt=lb) 6=186.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | C6 | Monopitch Supported Gable | 1 | 1 | I38965463 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:49 2019 Page 1

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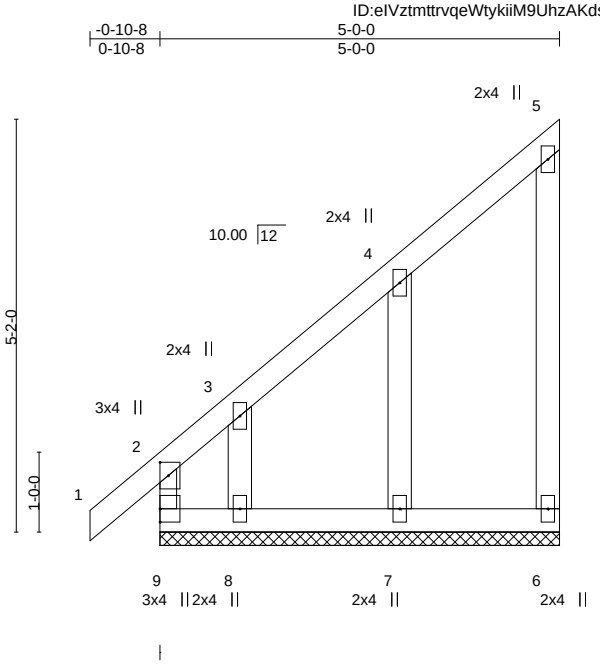


Plate Offsets (X,Y)-- [2:0-2-0,0-1-4]

| 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 | 0.15 | Vert(LL) | 0.00 | 2 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | 0.00 | 2 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | -0.00 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 25 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 5-6: 2x4 SPF No.2 |
| OTHERS | 2x4 SPF No.2 |

**BRACING-**

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

**REACTIONS.** All bearings 5-0-0.
(lb) - Max Horz 9=200(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 6, 7 except 9=-105(LC 4), 8=-185(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 9, 6, 7, 8

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

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7 except (jt=lb) 9=105, 8=185.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | D1 | Common Supported Gable | 1 | 1 | I38965464 |
| | | | | | Job Reference (optional) |

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

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

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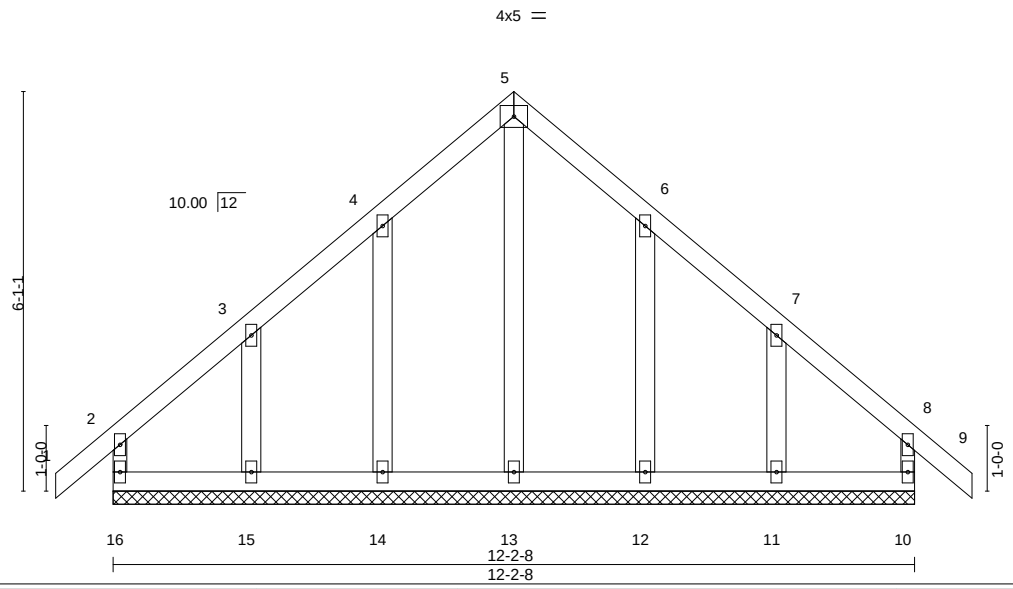


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.09 | Vert(LL) | -0.00 | 9 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.06 | Vert(CT) | -0.00 | 9 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.10 | Horz(CT) | 0.00 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 56 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

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

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

(lb) - Max Horz 16=181(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 12 except 15=-129(LC 8), 11=-127(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10, 14, 12 except (jt=lb) 15=129, 11=127.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 18,2019




MiTek

16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | D2 | Roof Special | 2 | 1 | I38965465 |
| | | | | | Job Reference (optional) |

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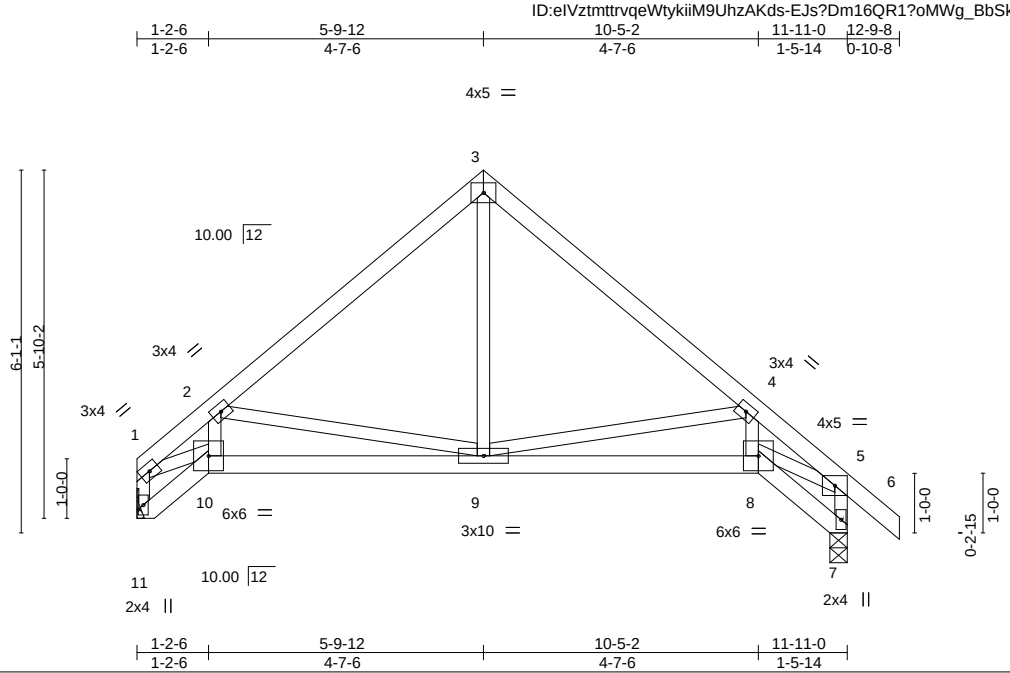


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.25 | Vert(LL) | -0.02 | 8-9 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.26 | Vert(CT) | -0.04 | 8-9 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.27 | Horz(CT) | 0.05 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.01 | 9-10 | >999 | 240 | Weight: 49 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-8-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 11=524/Mechanical, 7=598/0-3-8
Max Horz 11=-177(LC 4)
Max Uplift 11=-49(LC 8), 7=-74(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-11=-528/67, 1-2=-899/166, 2-3=-557/86, 3-4=-555/102, 4-5=-998/112, 5-7=-563/62
BOT CHORD 9-10=-194/811, 8-9=-72/742
WEBS 1-10=-160/713, 2-9=-438/237, 3-9=-1/306, 4-9=-417/200, 5-8=-84/789

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 7.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | D3 | Roof Special | 2 | 1 | I38965466 |
| | | | | | Job Reference (optional) |

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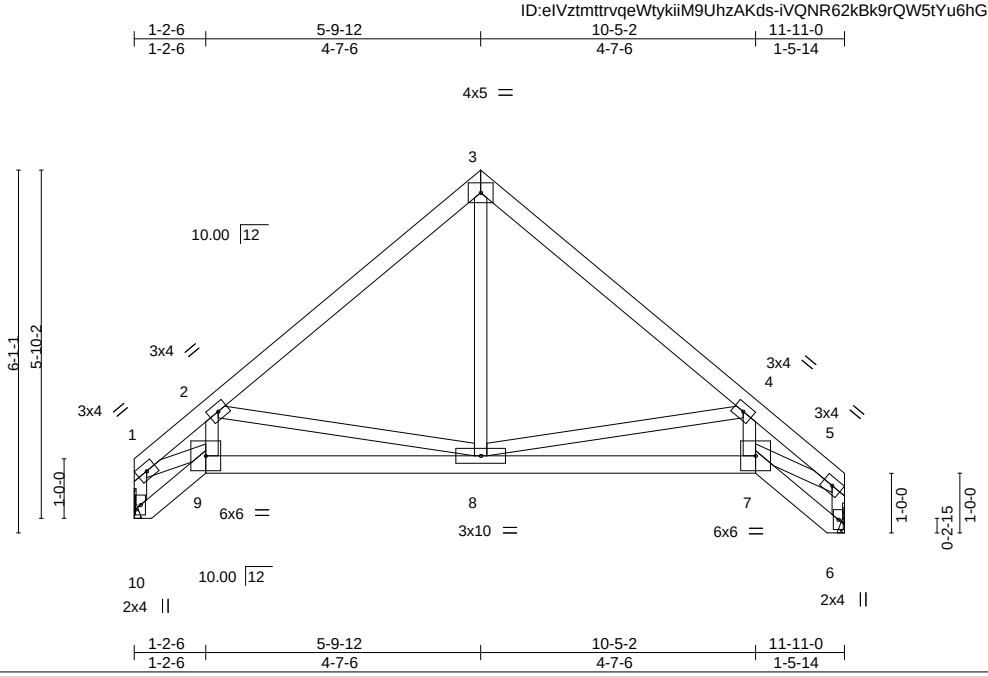


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.25 | Vert(LL) | -0.02 | 7-8 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.27 | Vert(CT) | -0.04 | 7-8 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.28 | Horz(CT) | 0.05 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.01 | 7-8 | >999 | 240 | Weight: 48 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-7-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 10=527/Mechanical, 6=527/Mechanical
Max Horz 10=-130(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=-508/11, 1-2=-864/59, 2-3=-561/37, 3-4=-560/43, 4-5=-1030/30, 5-6=-502/0
BOT CHORD 8-9=-137/753, 7-8=-32/773
WEBS 1-9=-63/686, 2-8=-404/148, 3-8=0/308, 4-8=-435/123, 5-7=-31/805

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | D4 | Roof Special | 1 | 1 | I38965467 |
| | | | | | Job Reference (optional) |

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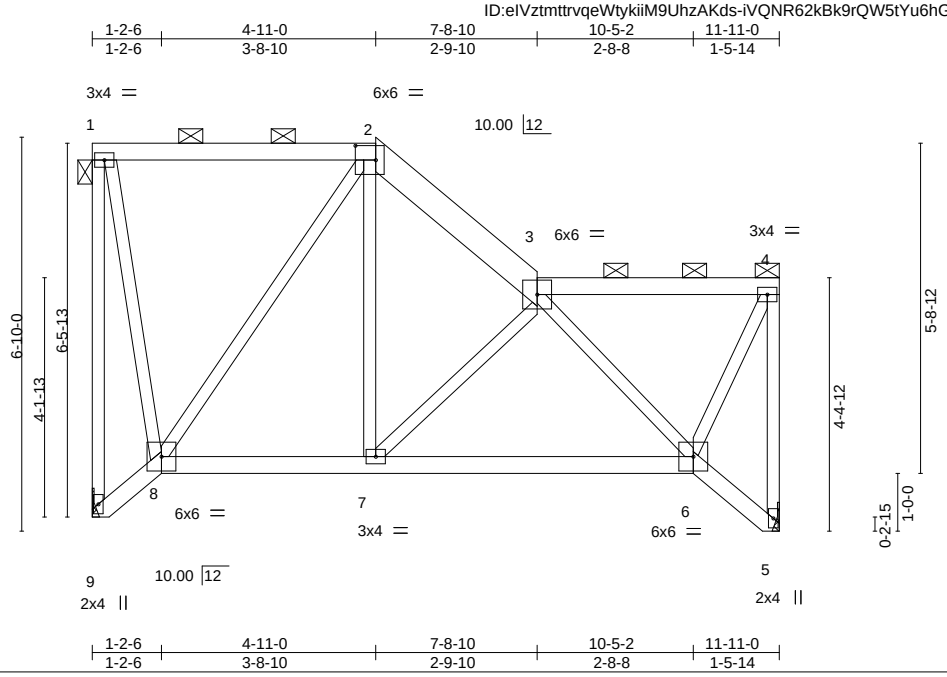


Plate Offsets (X,Y)-- [2:0-4-4,0-3-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.46 | Vert(LL) | -0.03 | 6-7 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.24 | Vert(CT) | -0.07 | 6-7 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.42 | Horz(CT) | 0.03 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.01 | 7 | >999 | 240 | Weight: 63 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2, 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 8-9.

**REACTIONS.** (lb/size) 9=527/Mechanical, 5=527/Mechanical
Max Horz 9=-201(LC 4)
Max Uplift 9=-61(LC 4), 5=-22(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-503/73, 2-3=-440/31, 4-5=-525/32
BOT CHORD 7-8=-69/303, 6-7=-65/457
WEBS 1-8=-30/357, 2-8=-402/68, 2-7=0/303, 3-6=-417/53, 4-6=-4/429

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) 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) 9, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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 | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | D5 | Roof Special | 1 | 1 | I38965468 |
| | | | | | Job Reference (optional) |

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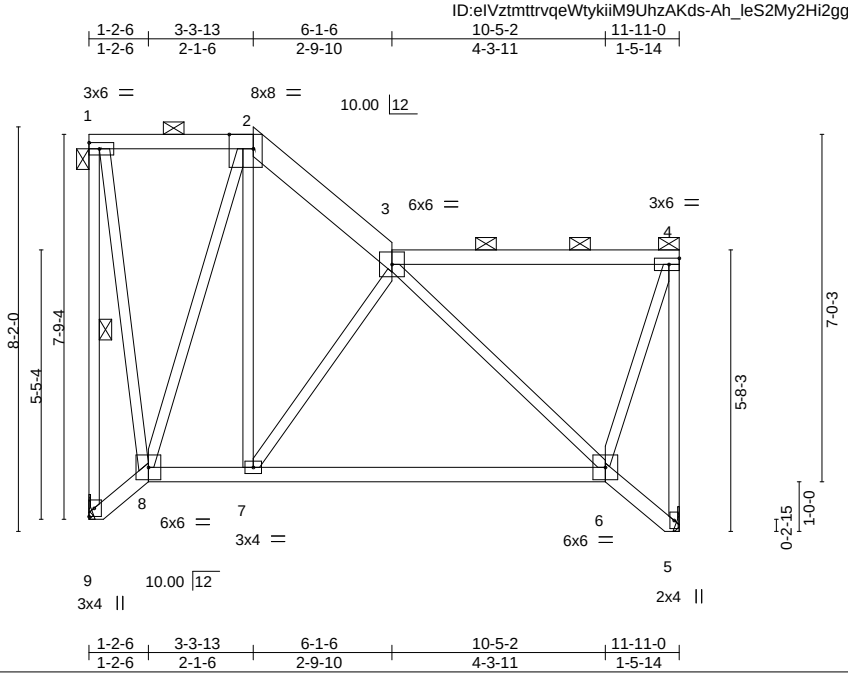


Plate Offsets (X,Y)-- [2:0-5-13,Edge]

| 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 | 0.50 | Vert(LL) | -0.08 | 6-7 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.36 | Vert(CT) | -0.16 | 6-7 | >892 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.55 | Horz(CT) | 0.03 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.01 | 6-7 | >999 | 240 | Weight: 71 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2, 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 8-9.
WEBS 1 Row at midpt 1-9

**REACTIONS.** (lb/size) 9=527/Mechanical, 5=527/Mechanical
Max Horz 9=-239(LC 4)
Max Uplift 9=-74(LC 4), 5=-53(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-489/86, 2-3=-350/66, 4-5=-537/57
BOT CHORD 8-9=-259/264, 7-8=-104/252, 6-7=-112/377
WEBS 1-8=-44/390, 2-8=-454/60, 2-7=0/408, 3-7=-311/71, 3-6=-349/98, 4-6=-18/374

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) 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) 9, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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 | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | D6 | ROOF SPECIAL GIRDER | 1 | 2 | I38965469 |

Job Reference (optional)

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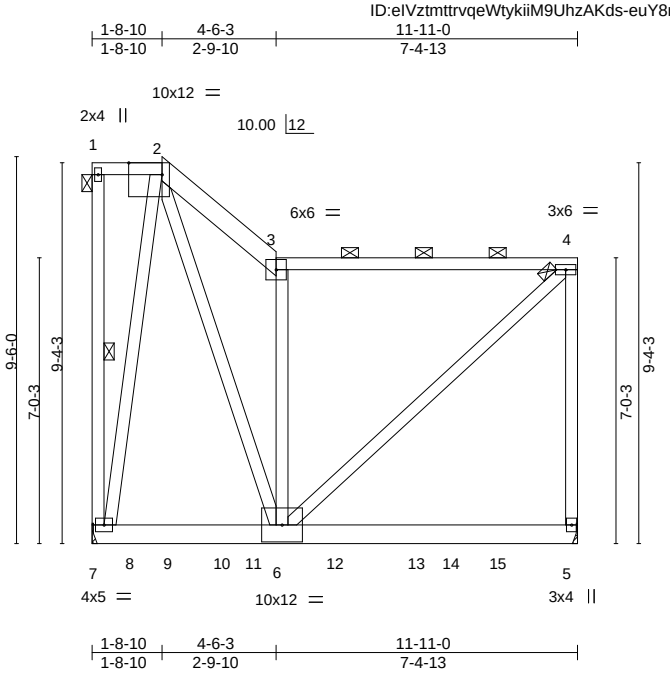


Scale = 1:56.6


Plate Offsets (X,Y)-- [2:0-9-13,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 | 0.54 | Vert(LL) | -0.13 | 5-6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.57 | Vert(CT) | -0.23 | 5-6 | >613 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.83 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.08 | 5-6 | >999 | 240 | Weight: 200 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2 *Except* 2-3: 2x6 SPF No.2

BOT CHORD 2x6 SP 2400F 2.0E

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.): 1-2, 3-4.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 1-7

**REACTIONS.** (lb/size) 7=3010/Mechanical, 5=2927/Mechanical
Max Horz 7=-347(LC 23)
Max Uplift 7=-438(LC 4), 5=-485(LC 5)
Max Grav 7=3144(LC 2), 5=2955(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2430/359, 3-4=-1774/243, 4-5=-1819/362
BOT CHORD 6-7=-266/576
WEBS 2-7=-2708/438, 2-6=-534/4294, 3-6=-1851/394, 4-6=-388/2353

**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, 2x6 - 2 rows staggered at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=438, 5=485.


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Continued on page 2



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**NOTES-**

9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1081 lb down and 77 lb up at 1-11-12, 1084 lb down and 232 lb up at 3-11-12, 974 lb down and 63 lb up at 5-11-12, and 1004 lb down and 63 lb up at 7-11-12, and 937 lb down and 196 lb up at 9-11-12 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: 1-2=-70, 2-3=-70, 3-4=-70, 5-7=-20
   Concentrated Loads (lb)
   Vert: 9=-1028(B) 11=-1048(B) 12=-940(B) 13=-938(B) 15=-937(B)




MiTek

16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | E1 | Half Hip Supported | 1 | 1 | I38965470 |
| | | | | | Job Reference (optional) |

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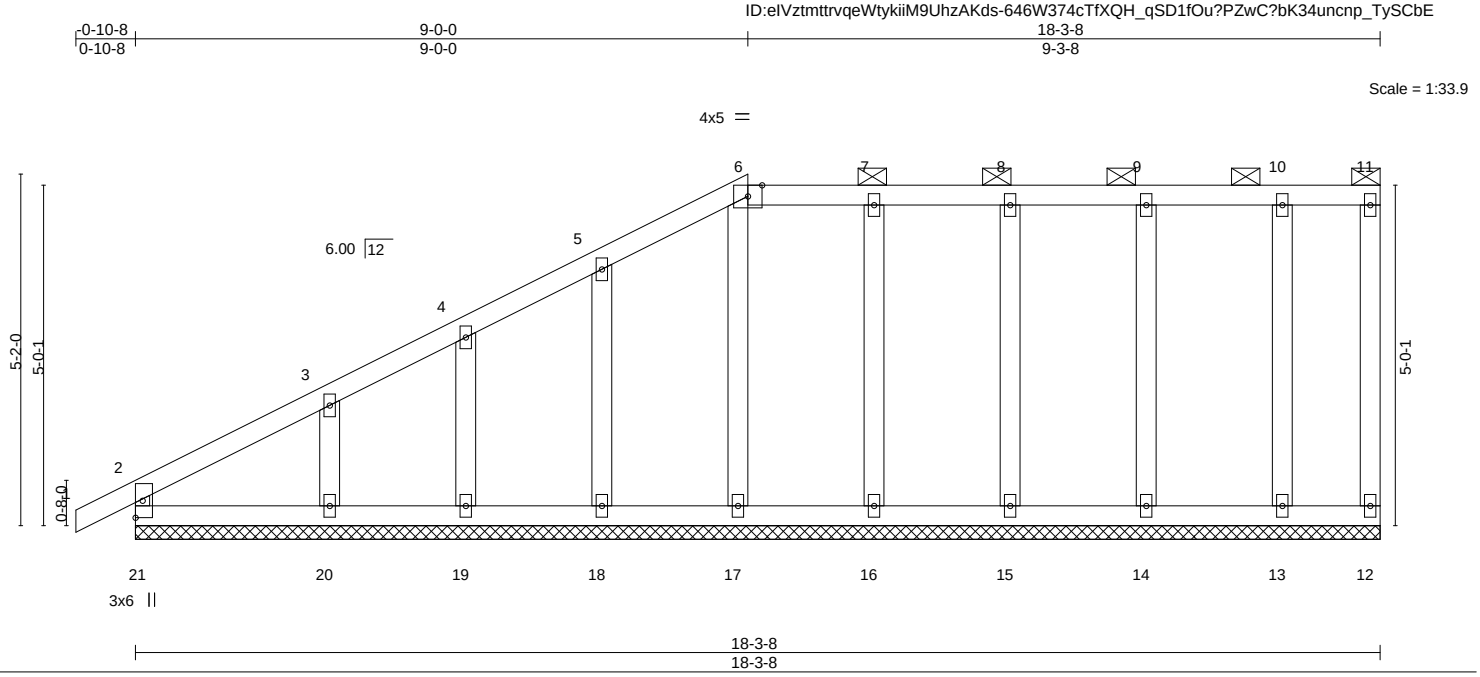



Plate Offsets (X,Y)-- [2:0-0-10,0-1-4], [21:0-0-0,0-1-4]

| 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 | 0.09 | Vert(LL) | 0.00 | 1 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | 0.00 | 1 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | -0.00 | 12 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 83 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 11-12: 2x4 SPF No.2 |
| OTHERS | 2x4 SPF No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-11. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing. |

**REACTIONS.** All bearings 18-3-8.

(lb) - Max Horz 21=203(LC 5)

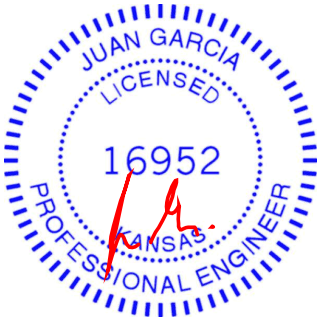
Max Uplift All uplift 100 lb or less at joint(s) 21, 12, 17, 18, 19, 16, 15, 14, 13 except 20=-106(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 21, 12, 17, 18, 19, 20, 16, 15, 14, 13

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

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 21, 12, 17, 18, 19, 16, 15, 14, 13 except (jt=lb) 20=106.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) 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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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | E2 | Half Hip | 1 | 1 | I38965471 |
| | | | | | Job Reference (optional) |

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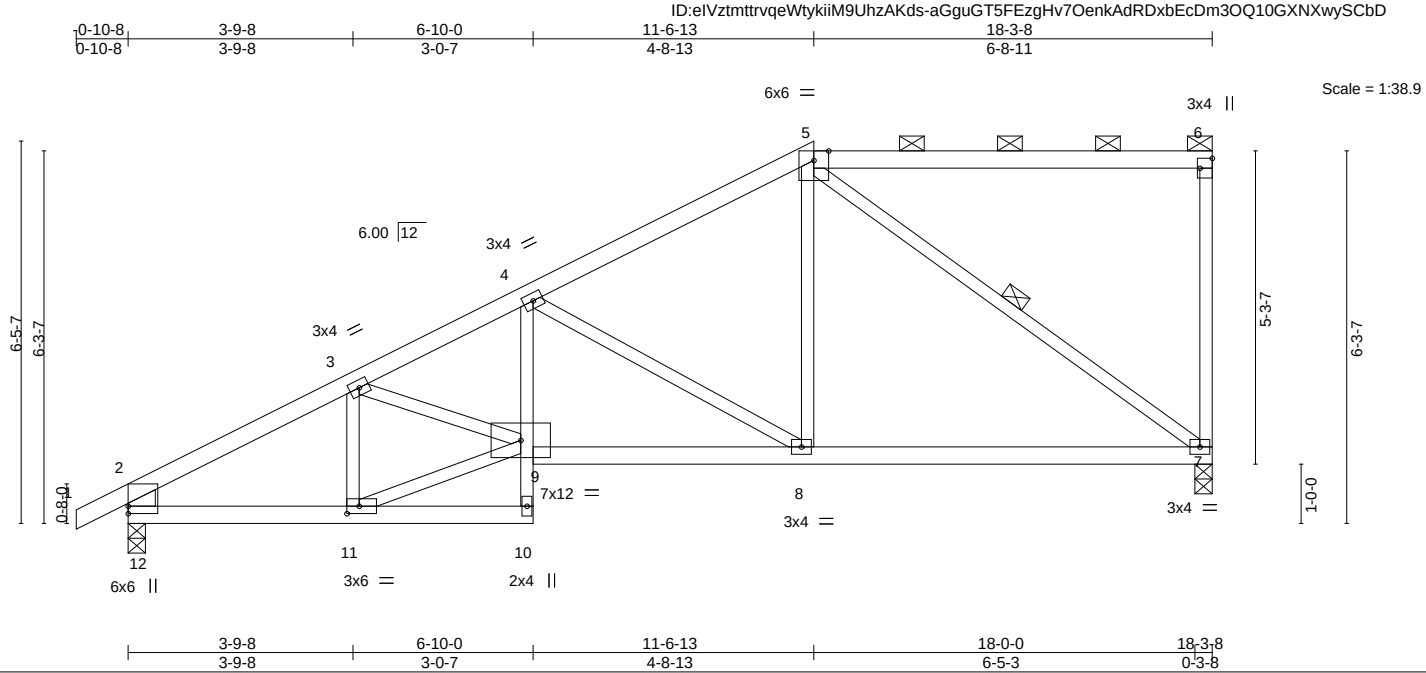


Plate Offsets (X,Y)-- [2:0-1-6,0-2-12], [6:Edge,0-2-8], [11:0-2-8,0-1-8], [12:0-0-0,0-2-12]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.70 | Vert(LL) | -0.07 | 7-8 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.56 | Vert(CT) | -0.15 | 7-8 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.56 | Horz(CT) | 0.04 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.05 | 10 | >999 | 240 | Weight: 73 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-10: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-12: 2x6 SP DSS

**BRACING-**

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

**REACTIONS.** (lb/size) 7=806/0-3-8, 12=888/0-3-8
Max Horz 12=241(LC 5)
Max Uplift 7=-135(LC 5), 12=-134(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1172/155, 3-4=-1506/258, 4-5=-865/134, 2-12=-788/150
BOT CHORD 11-12=-217/955, 4-9=-48/366, 8-9=-260/1346, 7-8=-147/706
WEBS 3-11=-395/134, 9-11=-220/976, 3-9=-52/405, 4-8=-725/238, 5-8=-30/478, 5-7=-866/128

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=135, 12=134.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | E3 | Half Hip | 1 | 1 | I38965472 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 — 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:57 2019 Page 1

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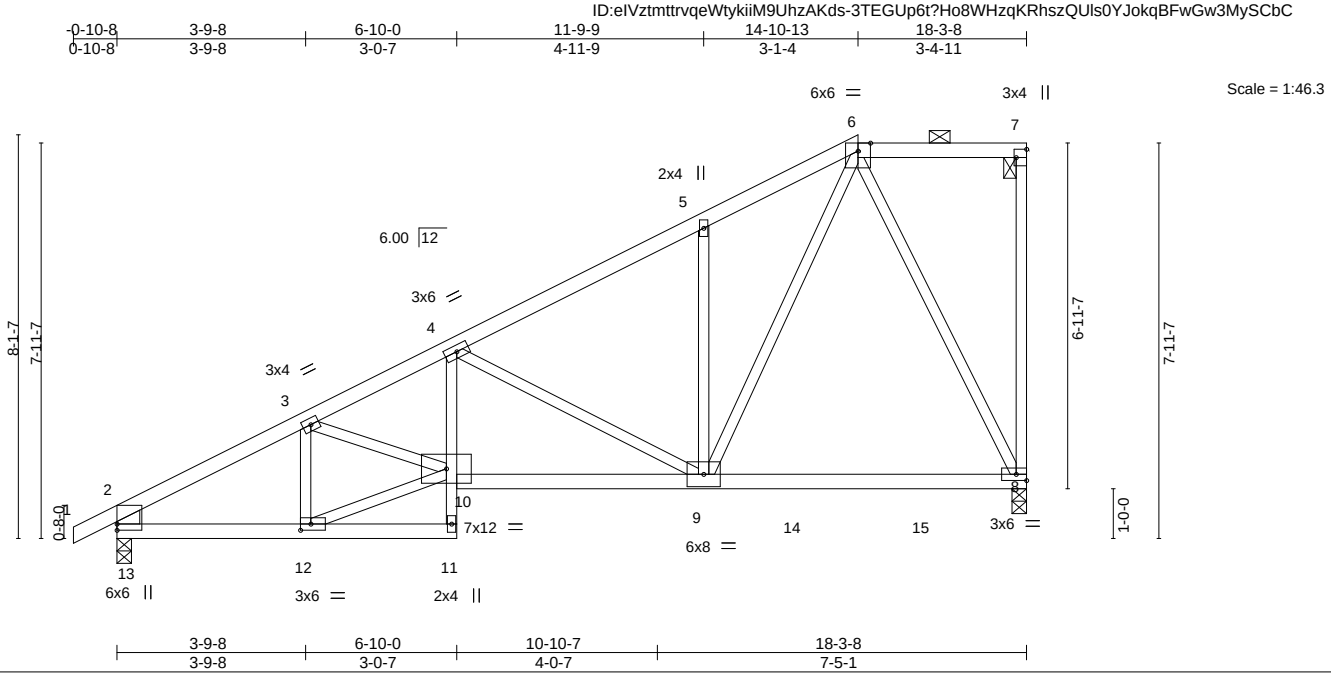


Plate Offsets (X,Y)-- [2:0-1-6,0-2-12], [7:Edge,0-2-8], [12:0-2-8,0-1-8], [13:0-0-0,0-2-12]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.70 | Vert(LL) | -0.10 | 8-9 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.61 | Vert(CT) | -0.16 | 8-9 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 1.00 | Horz(CT) | 0.04 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.06 | 11 | >999 | 240 | Weight: 80 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-11: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13: 2x6 SP DSS

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 8=806/0-3-8, 13=888/0-3-8
Max Horz 13=310(LC 5)
Max Uplift 8=-133(LC 8), 13=-137(LC 8)
Max Grav 8=860(LC 2), 13=903(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1209/160, 3-4=-1562/282, 4-5=-862/148, 5-6=-834/239, 2-13=-789/152
BOT CHORD 12-13=-256/1016, 4-10=-53/429, 9-10=-316/1430, 8-9=-112/344
WEBS 3-12=-393/149, 10-12=-257/1042, 3-10=-58/425, 4-9=-795/246, 5-9=-290/176, 6-9=-229/915, 6-8=-736/155

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=133, 13=137.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | E4 | Monopitch | 1 | 1 | I38965473 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:58 2019 Page 1

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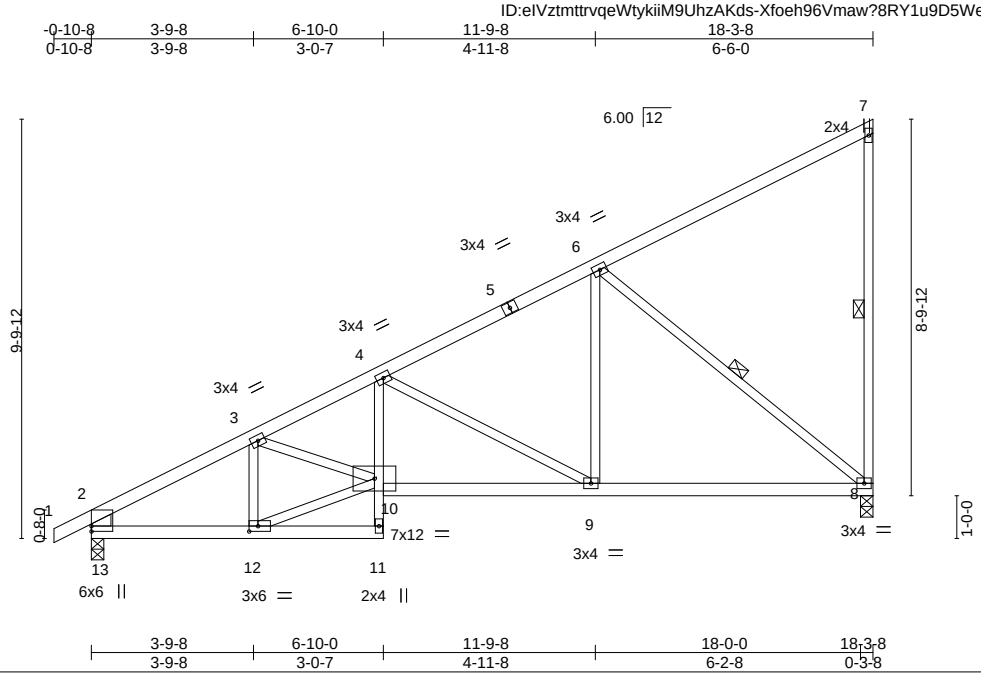


Plate Offsets (X,Y)-- [2:0-1-6,0-2-12], [12:0-2-8,0-1-8], [13:0-0-0,0-2-12]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.59 | Vert(LL) | -0.07 | 10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.57 | Vert(CT) | -0.13 | 9-10 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.59 | Horz(CT) | 0.04 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.06 | 10 | >999 | 240 | Weight: 77 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 *Except* 4-11: 2x3 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 2-13: 2x6 SP DSS |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 4-5-2 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 8-9-4 oc bracing. |
| WEBS | 1 Row at midpt 7-8, 6-8 |

**REACTIONS.** (lb/size) 8=806/0-3-8, 13=888/0-3-8
Max Horz 13=379(LC 8)
Max Uplift 8=-251(LC 8), 13=-76(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1173/57, 3-4=-1502/209, 4-6=-840/46, 2-13=-788/97
BOT CHORD 12-13=-373/957, 4-10=-100/374, 9-10=-447/1336, 8-9=-221/696
WEBS 3-12=-398/189, 10-12=-385/983, 3-10=-75/395, 4-9=-725/256, 6-9=-21/476, 6-8=-893/283

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 8=251.
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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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | E5 | Monopitch | 1 | 1 | I38965474 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:30:58 2019 Page 1
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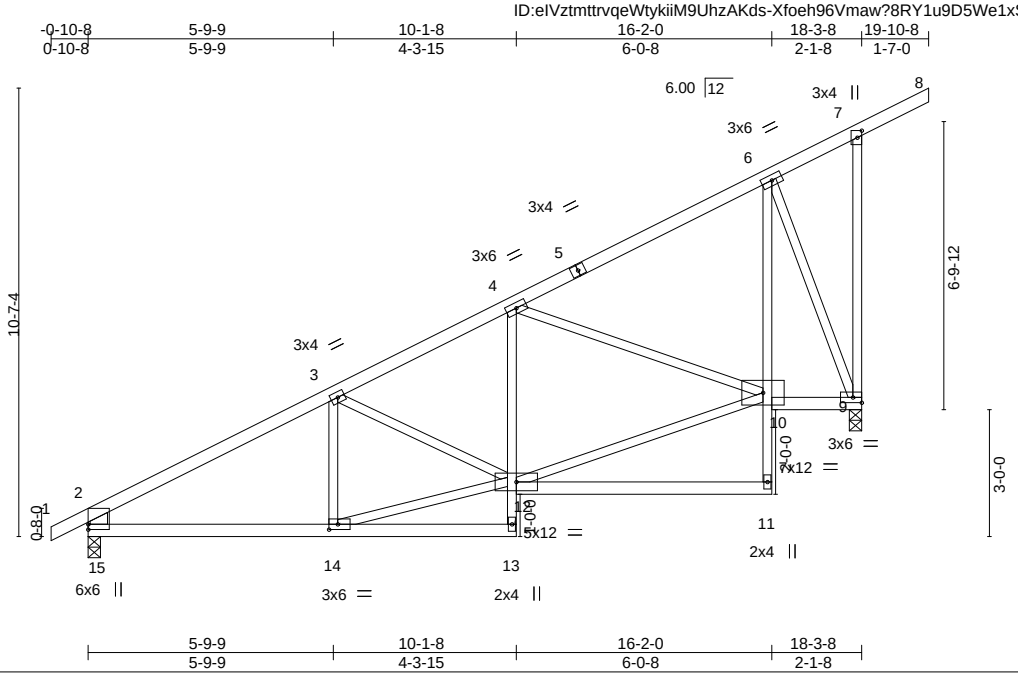


Plate Offsets (X,Y)-- [2:0-1-6,0-2-12], [7:0-2-0,0-1-4], [14:0-2-8,0-1-8], [15:0-0-0,0-2-12]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.65 | Vert(LL) | -0.07 | 11-12 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.44 | Vert(CT) | -0.15 | 11-12 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.66 | Horz(CT) | 0.02 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.03 | 13 | >999 | 240 | Weight: 87 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-13,6-11: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-15: 2x6 SP DSS

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 4-6-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 13-14.

**REACTIONS.** (lb/size) 9=929/0-3-8, 15=882/0-3-8
Max Horz 15=385(LC 5)
Max Uplift 9=-264(LC 8), 15=-102(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1176/97, 3-4=-1000/128, 4-6=-432/44, 2-15=-803/139
BOT CHORD 14-15=-286/952, 6-10=-124/593, 9-10=-85/296
WEBS 12-14=-264/948, 10-12=-239/883, 4-10=-591/200, 6-9=-805/250

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=264, 15=102.
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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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | G1 | Roof Special Girder | 1 | 1 | I38965475 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 — 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:00 2019 Page 1

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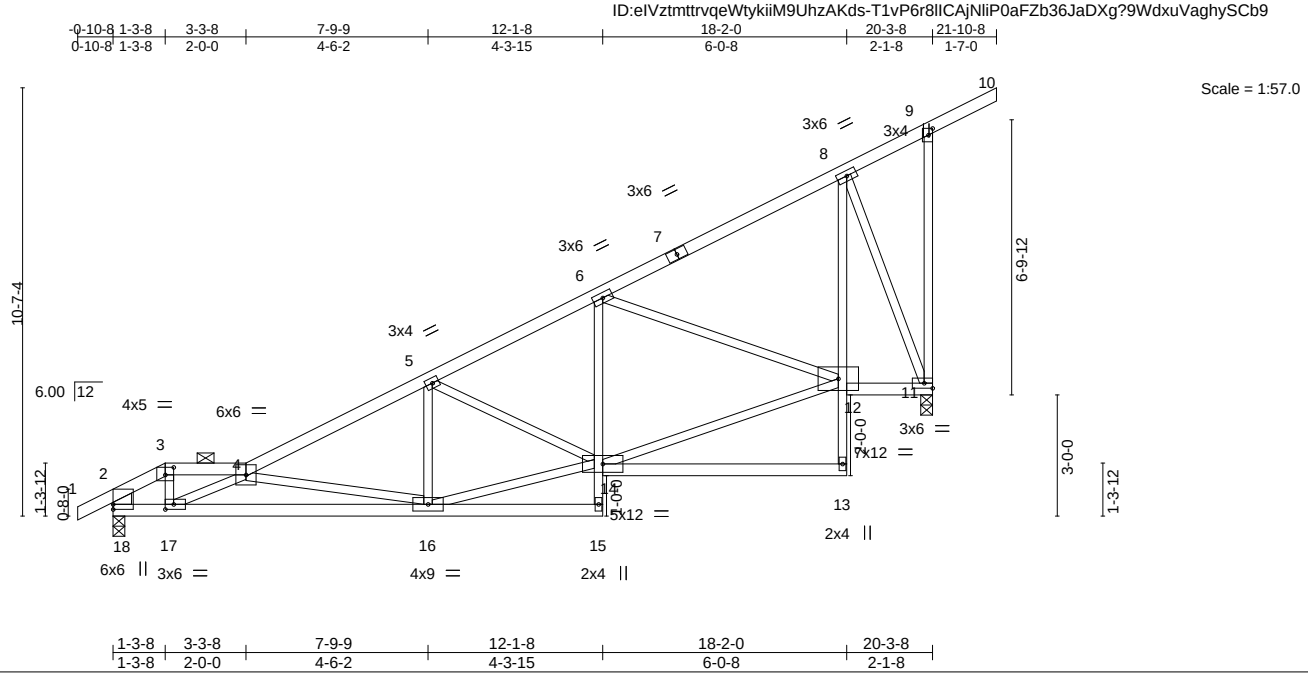


Plate Offsets (X,Y)-- [2:0-1-6,0-2-12], [3:0-2-8,0-2-4], [9:0-2-0,0-1-4], [17:0-2-8,0-1-8], [18:0-0-0,0-2-12]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.55 | Vert(LL) | -0.09 | 16-17 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.76 | Vert(CT) | -0.18 | 16-17 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.75 | Horz(CT) | 0.03 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 16-17 | >999 | 240 | Weight: 98 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
6-15,8-13: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-18: 2x6 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-3-10 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, Except:
8-3-10 oc bracing: 16-17
6-0-0 oc bracing: 15-16.

**REACTIONS.** (lb/size) 11=1019/0-3-8, 18=969/0-3-8
Max Horz 18=385(LC 5)
Max Uplift 11=-273(LC 8), 18=-126(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1050/65, 3-4=-870/62, 4-5=-1530/131, 5-6=-1189/146, 6-8=-472/48, 2-18=-808/79
BOT CHORD 17-18=-306/807, 16-17=-504/2181, 6-14=0/292, 8-12=-136/699, 11-12=-80/332
WEBS 3-17=-14/614, 4-17=-1487/226, 4-16=-874/199, 14-16=-286/1333, 5-14=-363/86, 12-14=-258/1054, 6-12=-725/216, 8-11=-904/259

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=273, 18=126.
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) 60 lb down and 42 lb up at 1-3-8 on top chord, and 5 lb down and 3 lb up at 1-3-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-9=-70, 9-10=-70, 15-18=-20, 13-14=-20, 11-12=-20



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Continued on page 2



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**LOAD CASE(S)** Standard
Concentrated Loads (lb)
Vert: 17=3(F)

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN | I38965476 |
|---|---|---|---|---|---|---|
| 400279 | G2 | Roof Special | 1 | 1 | Job Reference (optional) | |

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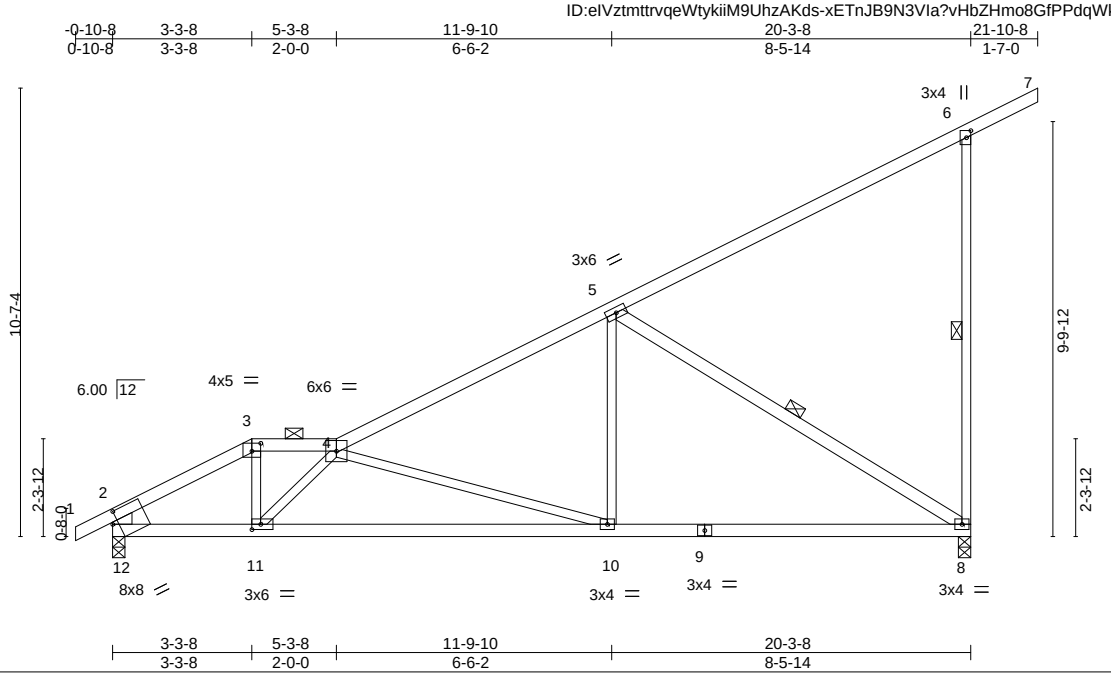



Plate Offsets (X,Y)-- [2:0-3-1,0-0-0], [3:0-2-8,0-2-4], [6:0-2-0,0-1-4], [11:0-2-8,0-1-8], [12:0-2-7,0-1-4], [12:0-1-10,0-3-4]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.86 | Vert(LL) | -0.17 | 8-10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.91 | Vert(CT) | -0.31 | 8-10 | >762 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.89 | Horz(CT) | 0.04 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 10-11 | >999 | 240 | Weight: 84 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
5-8: 2x4 SPF No.2, 2-12: 2x6 SP 2400F 2.0E

**BRACING-**

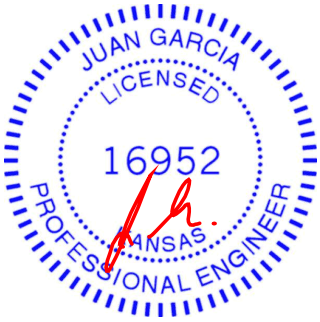
TOP CHORD Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-14 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 8-9-8 oc bracing.
WEBS 1 Row at midpt 6-8, 5-8

**REACTIONS.** (lb/size) 8=1019/0-3-8, 12=973/0-3-8
Max Horz 12=409(LC 8)
Max Uplift 8=-313(LC 8), 12=-86(LC 8)
Max Grav 8=1043(LC 2), 12=996(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1427/52, 3-4=-1212/67, 4-5=-1171/0, 6-8=-372/194, 2-12=-897/91
BOT CHORD 11-12=-403/1177, 10-11=-436/1709, 8-10=-255/993
WEBS 3-11=0/661, 4-11=-744/51, 4-10=-750/189, 5-10=0/601, 5-8=-1161/298

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12 except (jt=lb) 8=313.
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.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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | G3 | Roof Special | 1 | 1 | I38965477 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 — 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:02 2019 Page 1

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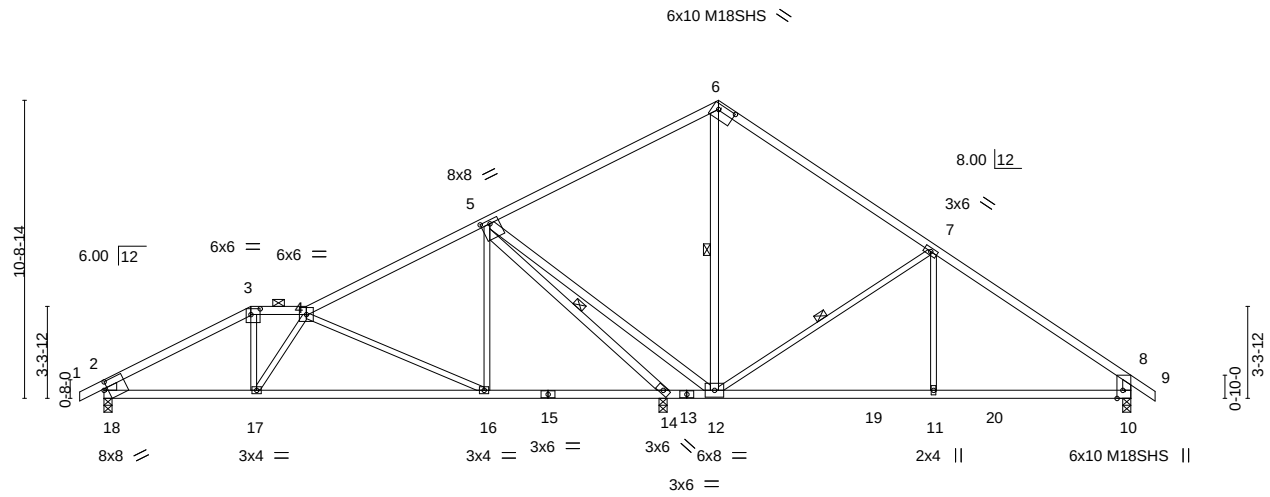
| -0-10-8 | 5-3-8 | 7-3-8 | 13-9-9 | 22-1-11 | 29-10-11 | 37-0-0 | 37-10-8 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 5-3-8 | 2-0-0 | 6-6-1 | 8-4-2 | 7-9-0 | 7-1-5 | 0-10-8 |

Scale = 1:83.0




| 5-3-8 | 7-3-8 | 13-9-9 | 20-1-12 | 22-1-11 | 29-10-11 | 37-0-0 |
|---|---|---|---|---|---|---|
| 5-3-8 | 2-0-0 | 6-6-1 | 6-4-3 | 1-11-15 | 7-9-0 | 7-1-5 |

Plate Offsets (X,Y)-- [2:0-3-1,0-0-0], [3:0-4-0,0-2-8], [5:0-4-0,0-1-8], [6:0-7-4,0-2-4], [8:0-1-3,0-1-12], [10:0-3-8,Edge], [10:0-0-0,0-1-12], [18:0-1-10,0-3-4], [18:0-2-7,0-1-4]

| 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 | 0.88 | Vert(LL) | -0.16 | 16-17 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.65 | Vert(CT) | -0.33 | 16-17 | >727 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.92 | Horz(CT) | 0.04 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.06 | 16-17 | >999 | 240 | Weight: 154 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 5-14,5-12,6-12: 2x4 SPF No.2, 2-18: 2x6 SP DSS 8-10: 2x4 SPF 2100F 1.8E |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-9-4 max.): 3-4. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 4-6-12 oc bracing: 12-14. |
| WEBS | 1 Row at midpt 5-14, 6-12, 7-12 |

**REACTIONS.** (lb/size) 18=889/0-3-8, 10=705/0-3-8, 14=1851/0-3-8
Max Horz 18=314(LC 7)
Max Uplift 18=-174(LC 8), 10=-182(LC 9), 14=-181(LC 8)
Max Grav 18=894(LC 21), 10=814(LC 16), 14=2002(LC 2)

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

| | |
|---|---|
| TOP CHORD | 2-3=-1236/214, 3-4=-1030/227, 4-5=-665/206, 5-6=-132/295, 6-7=-193/283, 7-8=-848/230, 2-18=-829/197, 8-10=-703/222 |
| BOT CHORD | 17-18=-278/1033, 16-17=-331/1156, 14-16=-146/553, 12-14=-1404/144, 11-12=-73/576, 10-11=-73/576 |
| WEBS | 3-17=-12/427, 4-17=-282/120, 4-16=-704/204, 5-16=0/590, 5-14=-2548/279, 5-12=0/1603, 6-12=-557/25, 7-12=-840/271, 7-11=0/410 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) The Fabrication Tolerance at joint 6 = 6%, joint 8 = 6%
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=174, 10=182, 14=181.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | G4 | Roof Special | 1 | 1 | I38965478 |
| | | | | | Job Reference (optional) |

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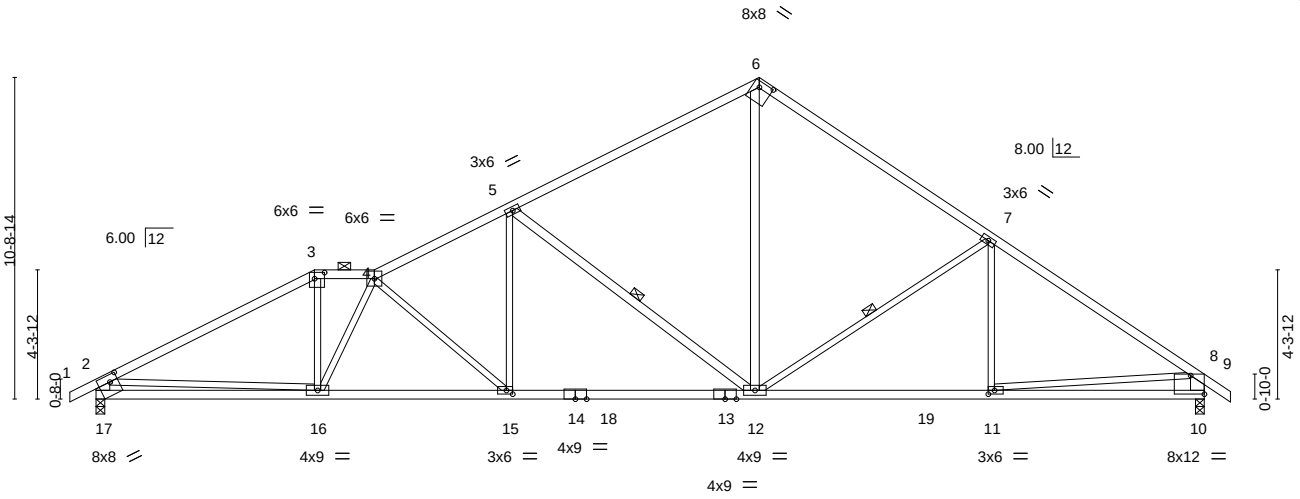
ID:eIVztmttrvqeWtykiiM9UhzAKds-tcbXksAeb7YIECR_hioGDhkjEQVzCYt3dsjEH0ySCb6

| -0-10-8 | 7-3-8 | 9-3-8 | 13-9-10 | 22-1-11 | 29-10-11 | 37-0-0 | 37-10-8 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 7-3-8 | 2-0-0 | 4-6-2 | 8-4-1 | 7-9-0 | 7-1-5 | 0-10-8 |

Scale = 1:76.9




| 7-3-8 | 9-3-8 | 13-9-10 | 22-1-11 | 29-10-11 | 37-0-0 |
|---|---|---|---|---|---|
| 7-3-8 | 2-0-0 | 4-6-2 | 8-4-1 | 7-9-0 | 7-1-5 |

Plate Offsets (X,Y)-- [3:0-4-0,0-2-8], [6:0-5-4,0-2-4], [10:Edge,0-7-7], [10:0-2-12,0-0-0], [11:0-2-8,0-1-8], [15:0-2-8,0-1-8], [17:0-2-7,0-1-4], [17:0-3-4,0-2-12]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.97 | Vert(LL) | -0.25 | 12-15 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.97 | Vert(CT) | -0.45 | 12-15 | >973 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.58 | Horz(CT) | 0.10 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.12 | 15 | >999 | 240 | Weight: 156 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2 *Except* 4-6,6-9: 2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 5-12,6-12: 2x4 SPF No.2, 2-17: 2x6 SP DSS, 8-10: 2x6 SPF No.2

**BRACING-**

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

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 5-12, 7-12

**REACTIONS.** (lb/size) 17=1722/0-3-8, 10=1722/0-3-8
Max Horz 17=315(LC 7)
Max Uplift 17=-255(LC 8), 10=-191(LC 9)
Max Grav 17=1789(LC 2), 10=1841(LC 16)

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

TOP CHORD 2-3=-2906/375, 3-4=-2526/384, 4-5=-2752/387, 5-6=-1814/282, 6-7=-1928/326, 7-8=-2444/243, 2-17=-1661/297, 8-10=-1728/227

BOT CHORD 16-17=-431/1023, 15-16=-431/2928, 12-15=-320/2452, 11-12=-106/1931, 10-11=-134/517

WEBS 3-16=-1/978, 4-16=-948/90, 4-15=-636/149, 5-15=-11/721, 5-12=-1181/328, 6-12=-132/1317, 7-12=-652/266, 2-16=0/1550, 8-11=-47/1460

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=255, 10=191.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | G5 | Roof Special Girder | 1 | 2 | I38965479 |
| | | | | | Job Reference (optional) |

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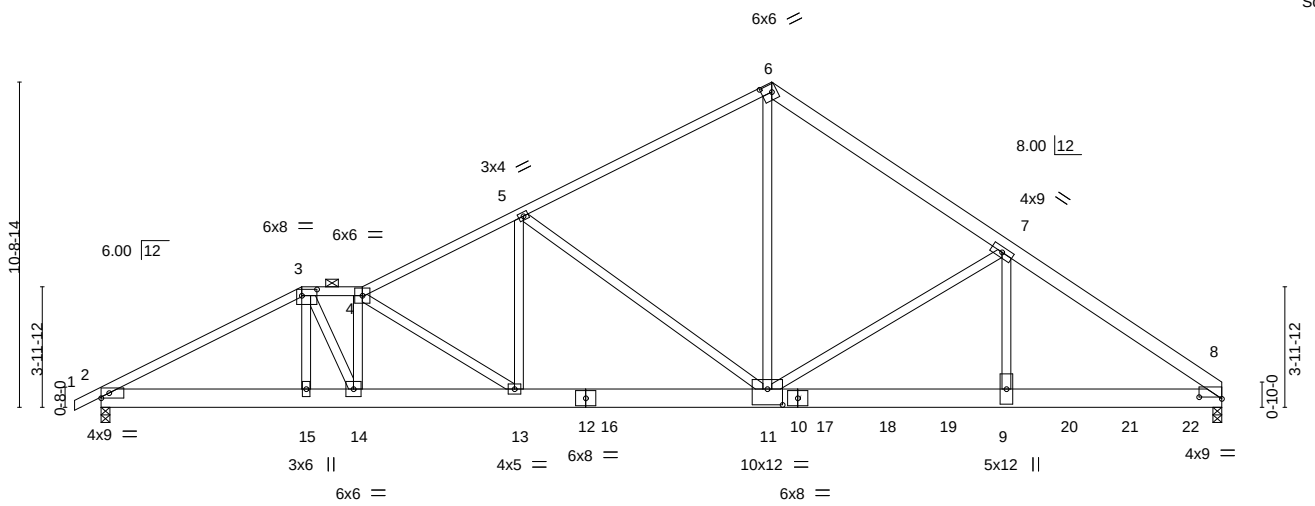
| -0-10-8 | 6-7-8 | 8-7-8 | 13-9-9 | 22-1-11 | 29-10-11 | 37-0-0 |
|---|---|---|---|---|---|---|
| 0-10-8 | 6-7-8 | 2-0-0 | 5-2-1 | 8-4-3 | 7-9-0 | 7-1-5 |

Scale = 1:76.1




| 6-7-8 | 8-7-8 | 13-9-9 | 22-1-11 | 29-10-11 | 37-0-0 |
|---|---|---|---|---|---|
| 6-7-8 | 2-0-0 | 5-2-1 | 8-4-3 | 7-9-0 | 7-1-5 |

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

| 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 | 0.65 | Vert(LL) | -0.22 | 9-11 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.69 | Vert(CT) | -0.39 | 9-11 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.91 | Horz(CT) | 0.07 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.15 | 9-11 | >999 | 240 | Weight: 475 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2 *Except*
4-6: 2x4 SPF 2100F 1.8E, 6-8: 2x6 SPF No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.** (lb/size) 8=6129/0-3-8, 2=3272/0-3-8
Max Horz 2=290(LC 28)
Max Uplift 8=-474(LC 9), 2=-422(LC 8)
Max Grav 8=6129(LC 1), 2=3303(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6234/753, 3-4=-6687/837, 4-5=-6495/791, 5-6=-5721/724, 6-7=-6103/796, 7-8=-9089/738
BOT CHORD 2-15=-746/5391, 14-15=-745/5399, 13-14=-884/6782, 11-13=-697/5791, 9-11=-525/7309, 8-9=-525/7309
WEBS 3-15=-31/295, 3-14=-276/2764, 4-14=-2305/259, 4-13=-1199/227, 5-13=-129/728, 5-11=-1190/459, 6-11=-586/5357, 7-11=-2860/294, 7-9=0/2875

**NOTES-**

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-3-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=474, 2=422.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Continued on page 2



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**NOTES-**

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 3109 lb down and 458 lb up at 23-10-7, 507 lb down and 94 lb up at 25-11-4, 507 lb down and 81 lb up at 27-11-4, 507 lb down at 29-11-4, 507 lb down at 31-11-4, and 504 lb down and 69 lb up at 33-11-4, and 505 lb down and 68 lb up at 35-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-70, 3-4=-70, 4-6=-70, 6-8=-70, 2-8=-20

Concentrated Loads (lb)

Vert: 9=-507(B) 17=-2990(B) 18=-507(B) 19=-507(B) 20=-507(B) 21=-504(B) 22=-505(B)




MiTek

16023 Swingley Ridge Rd

Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | G6 | Roof Special | 1 | 1 | I38965480 |
| | | | | | Job Reference (optional) |

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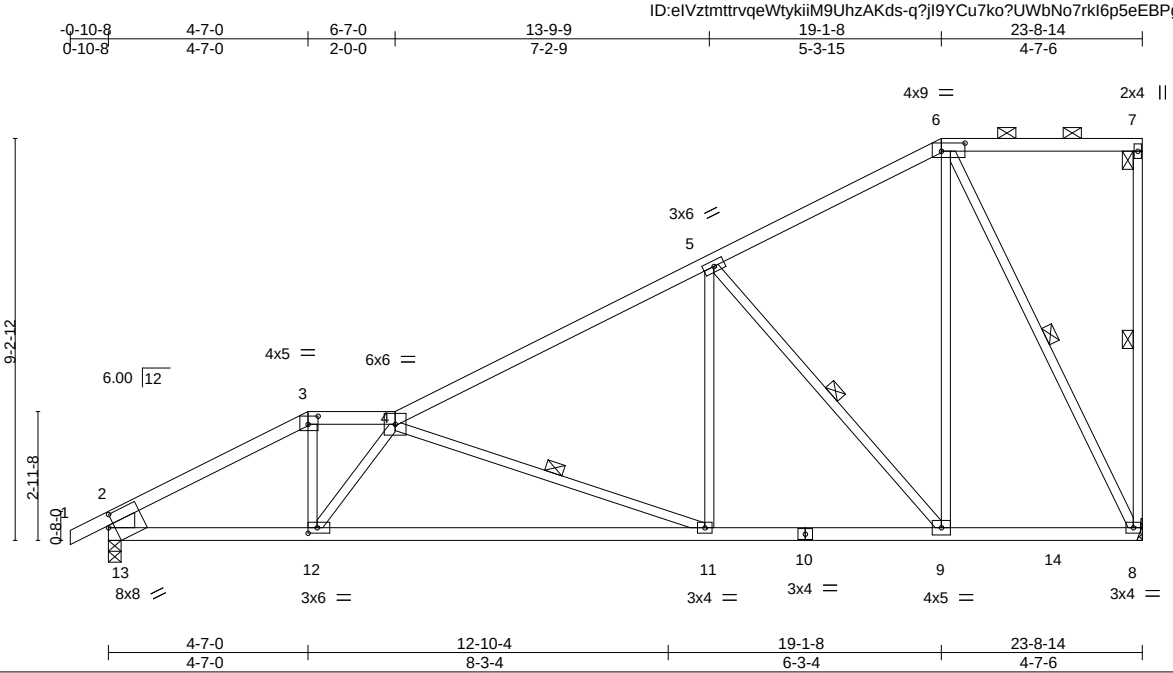



Plate Offsets (X,Y)-- [2:0-4-1,0-0-0], [3:0-2-12,0-2-4], [6:0-6-8,0-2-4], [12:0-2-8,0-1-8], [13:0-1-10,0-3-4], [13:0-3-4,0-1-10]

| 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 | 0.78 | Vert(LL) | -0.25 | 11-12 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.91 | Vert(CT) | -0.50 | 11-12 | >566 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.95 | Horz(CT) | 0.05 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 11-12 | >999 | 240 | Weight: 103 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 *Except* 1-3: 2x4 SPF 2100F 1.8E |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 2-13: 2x8 SP DSS |

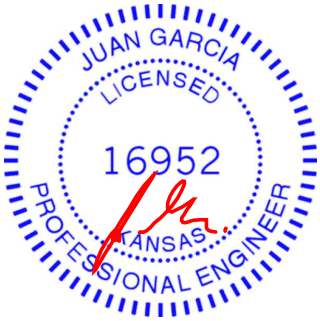
**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 3-7-9 oc purlins, except end verticals, and 2-0-0 oc purlins (4-7-11 max.): 3-4, 6-7. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 1 Row at midpt 7-8, 4-11, 5-9, 6-8 |

**REACTIONS.** (lb/size) 8=1048/Mechanical, 13=1134/0-3-8
Max Horz 13=249(LC 8)
Max Uplift 8=-57(LC 8), 13=-11(LC 8)
Max Grav 8=1130(LC 2), 13=1166(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1739/0, 3-4=-1474/0, 4-5=-1304/0, 5-6=-603/18, 2-13=-1069/27
BOT CHORD 12-13=-180/1443, 11-12=-199/1896, 9-11=-102/1096, 8-9=-35/474
WEBS 3-12=0/797, 4-12=-757/37, 4-11=-857/103, 5-11=0/620, 5-9=-974/103, 6-9=-25/920, 6-8=-1044/77

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
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) 8, 13.
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.


October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | G7 | Roof Special Girder | 1 | 1 | I38965481 |
| | | | | | Job Reference (optional) |

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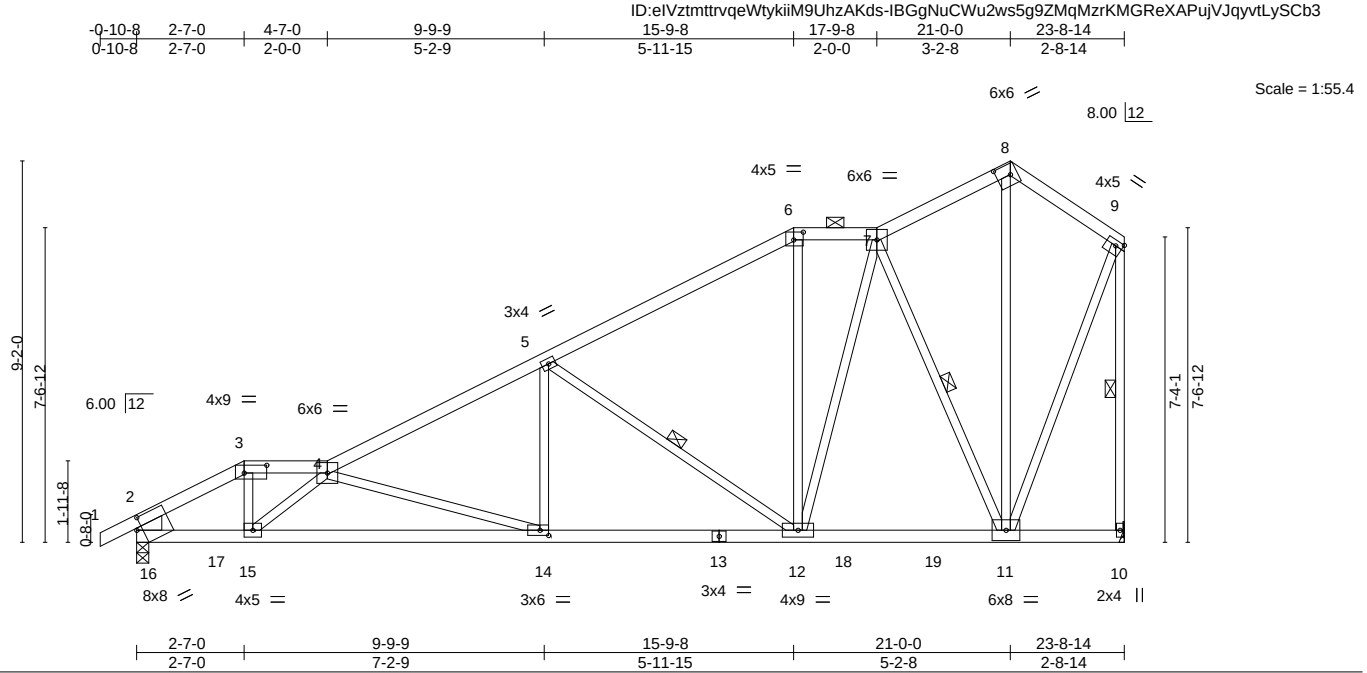


Plate Offsets (X,Y)-- [2:0-4-1,0-0-0], [3:0-6-8,0-2-4], [6:0-2-12,0-2-4], [8:0-3-15,0-3-0], [9:Edge,0-1-8], [14:0-2-8,0-1-8], [16:0-1-10,0-3-4], [16:0-3-4,0-1-10]

| 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 | 0.78 | Vert(LL) | -0.16 | 14-15 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.94 | Vert(CT) | -0.30 | 14-15 | >925 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.70 | Horz(CT) | 0.06 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.10 | 14-15 | >999 | 240 | Weight: 113 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2 *Except* 1-3: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 2-16: 2x8 SP 2400F 2.0E

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-0-2 oc purlins, except end verticals, and 2-0-0 oc purlins (4-4-14 max.): 3-4, 6-7.
BOT CHORD Rigid ceiling directly applied or 7-5-2 oc bracing.
WEBS 1 Row at midpt 5-12, 7-11, 9-10

**REACTIONS.** (lb/size) 16=1403/0-3-8, 10=1068/Mechanical
Max Horz 16=313(LC 8)
Max Uplift 16=-244(LC 8), 10=-212(LC 8)
Max Grav 16=1406(LC 2), 10=1121(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1861/249, 3-4=-1585/235, 4-5=-1803/230, 5-6=-1007/148, 6-7=-825/172, 7-8=-394/86, 8-9=-408/103, 2-16=-1183/194, 9-10=-1091/220
BOT CHORD 15-16=-482/1522, 14-15=-630/2443, 12-14=-402/1580, 11-12=-160/677
WEBS 3-15=-87/993, 4-15=-1154/212, 4-14=-913/240, 5-14=0/527, 5-12=-923/250, 7-12=-144/591, 7-11=-914/250, 9-11=-169/873

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=244, 10=212.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) 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) 288 lb down and 91 lb up at 1-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard



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Continued on page 2



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-6=-70, 6-7=-70, 7-8=-70, 8-9=-70, 10-16=-20
   Concentrated Loads (lb)
   Vert: 17=-288(B)

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | H1 | Roof Special | 1 | 1 | I38965482 |
| | | | | | Job Reference (optional) |

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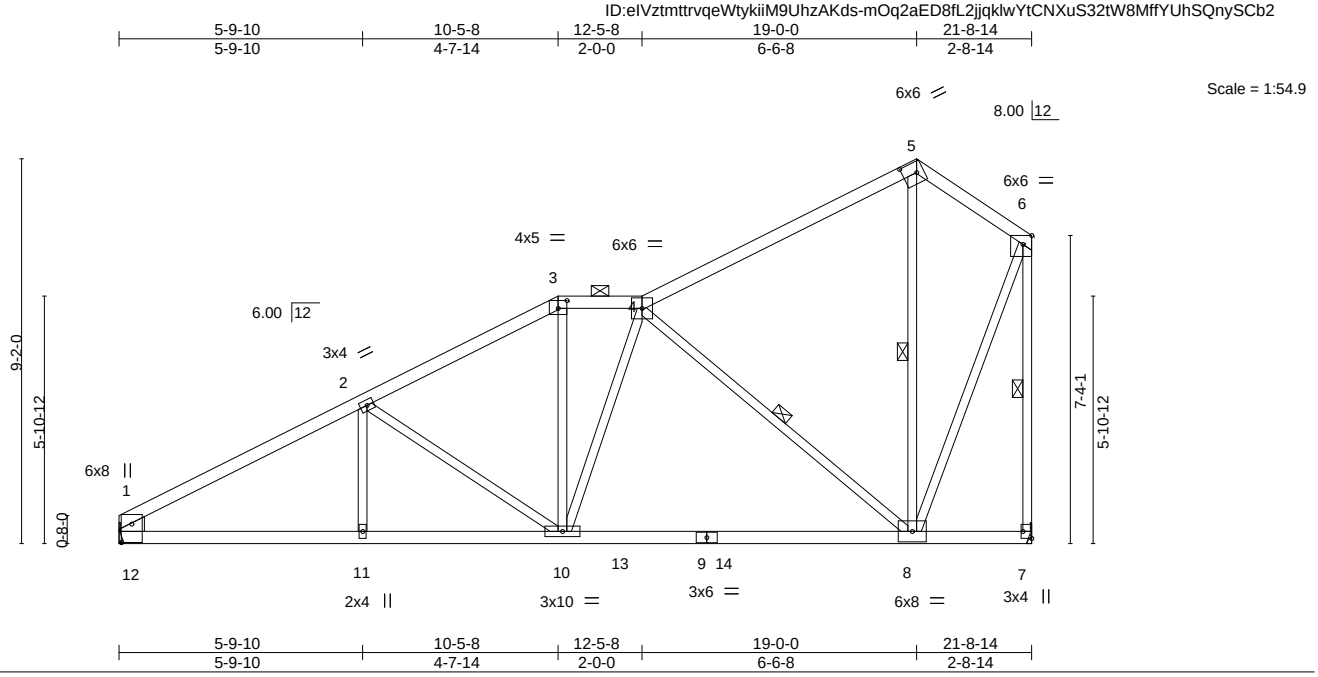


Plate Offsets (X,Y)-- [1:0-5-5,0-3-0], [3:0-2-8,0-2-4], [5:0-3-15,0-3-0], [6:0-2-8,Edge], [7:Edge,0-2-8]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.72 | Vert(LL) | -0.17 | 8-10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.93 | Vert(CT) | -0.31 | 8-10 | >816 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.59 | Horz(CT) | 0.03 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.06 | 10-11 | >999 | 240 | Weight: 95 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-12: 2x8 SP DSS

**BRACING-**

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

**REACTIONS.** (lb/size) 12=960/Mechanical, 7=960/Mechanical
Max Horz 12=270(LC 5)
Max Uplift 12=-23(LC 8), 7=-43(LC 8)
Max Grav 12=1001(LC 2), 7=1009(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1494/55, 2-3=-1187/61, 3-4=-1013/71, 4-5=-482/62, 5-6=-437/92, 1-12=-837/57, 6-7=-1026/53
BOT CHORD 11-12=-106/1295, 10-11=-106/1295, 8-10=-59/983
WEBS 2-10=-323/88, 3-10=0/351, 4-8=-872/118, 6-8=-8/863

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 7.
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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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | H2 | Roof Special | 1 | 1 | I38965483 |
| | | | | | Job Reference (optional) |

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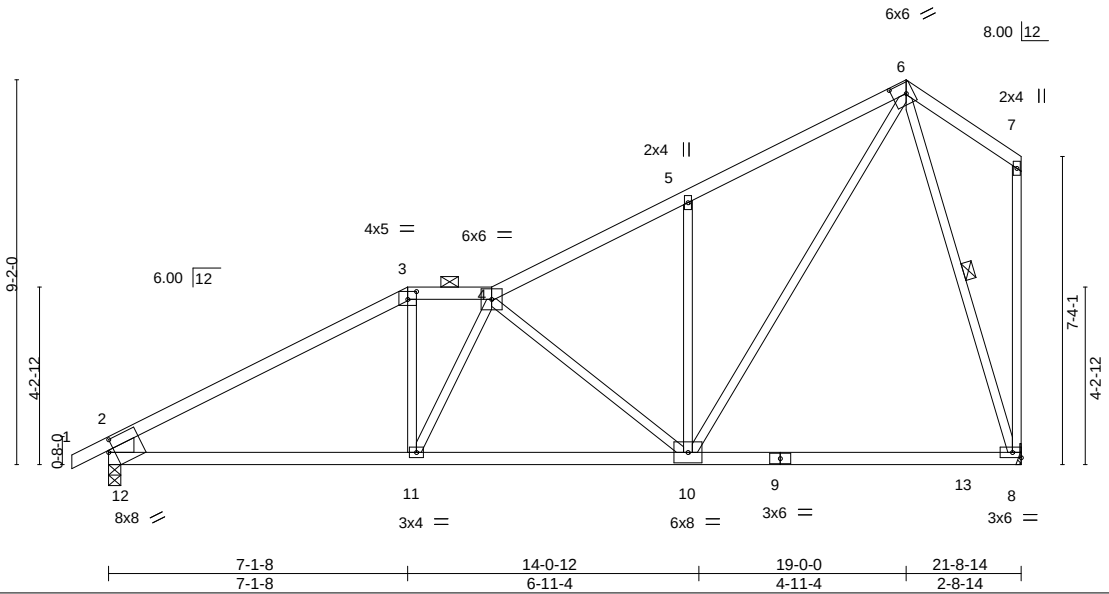
| -0-10-8 | 7-1-8 | 9-1-8 | 13-9-10 | 19-0-0 | 21-8-14 |
|---|---|---|---|---|---|
| 0-10-8 | 7-1-8 | 2-0-0 | 4-8-2 | 5-2-6 | 2-8-14 |

Scale = 1:54.9




| 7-1-8 | 14-0-12 | 19-0-0 | 21-8-14 |
|---|---|---|---|
| 7-1-8 | 6-11-4 | 4-11-4 | 2-8-14 |

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

| 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 | 0.88 | Vert(LL) | -0.24 | 8-10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.73 | Vert(CT) | -0.37 | 8-10 | >683 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.69 | Horz(CT) | 0.03 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.04 | 8-10 | >999 | 240 | Weight: 92 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* |
| | 2-12: 2x8 SP DSS |

**BRACING-**

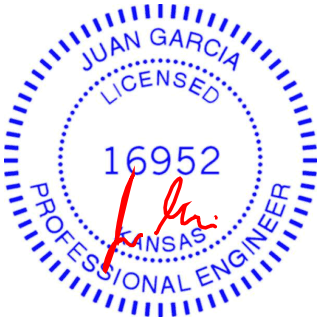
| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-15 max.): 3-4. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 1 Row at midpt 6-8 |

**REACTIONS.** (lb/size) 12=1045/0-3-8, 8=958/Mechanical
Max Horz 12=278(LC 5)
Max Uplift 12=-36(LC 8), 8=-43(LC 8)
Max Grav 12=1067(LC 2), 8=1044(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1459/47, 3-4=-1212/71, 4-5=-1041/53, 5-6=-1045/142, 2-12=-960/82
BOT CHORD 11-12=-88/1230, 10-11=-68/1335, 8-10=-60/279
WEBS 3-11=0/434, 4-11=-274/7, 4-10=-593/79, 5-10=-400/136, 6-10=-108/1208, 6-8=-891/64

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 8.
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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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | H3 | Roof Special Girder | 1 | 1 | I38965484 |
| | | | | | Job Reference (optional) |

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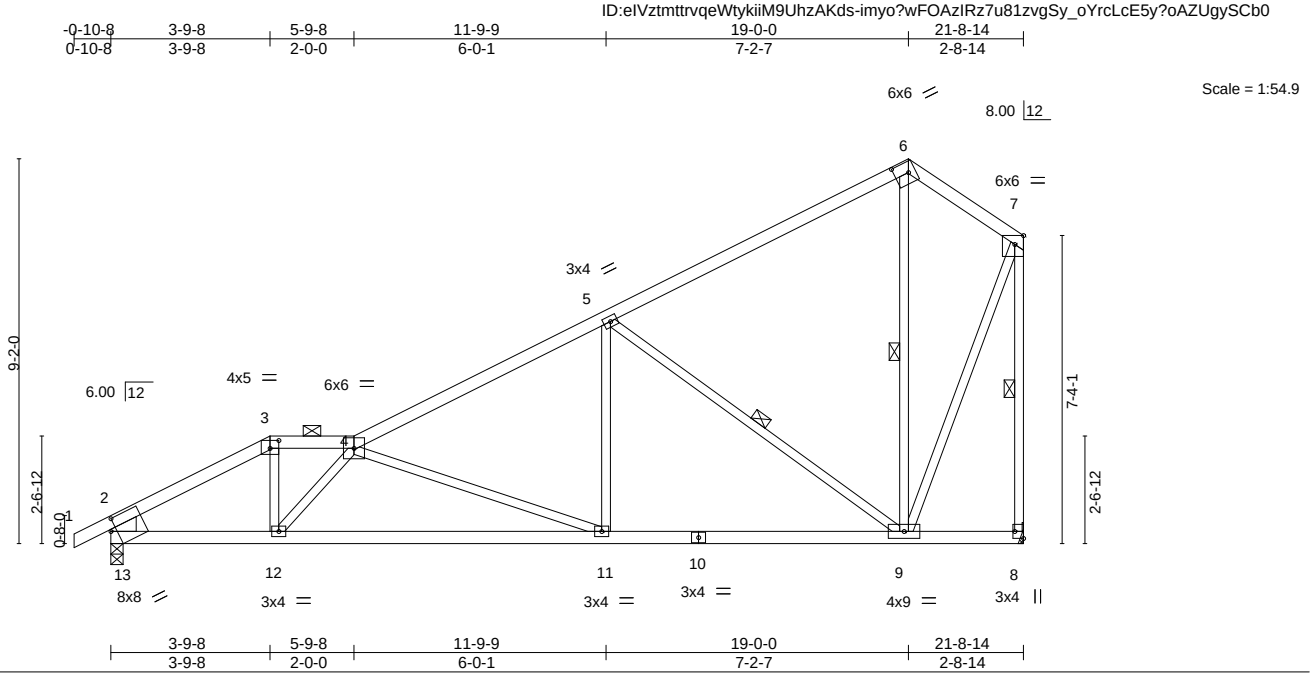


Plate Offsets (X,Y)-- [2:0-4-1,0-0-0], [3:0-2-8,0-2-4], [6:0-3-15,0-3-0], [7:0-2-8,Edge], [8:Edge,0-2-8], [13:0-1-10,0-3-4], [13:0-3-4,0-1-10]

| 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 | 0.72 | Vert(LL) | -0.11 | 11-12 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.72 | Vert(CT) | -0.27 | 11-12 | >951 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.73 | Horz(CT) | 0.04 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.09 | 11-12 | >999 | 240 | Weight: 94 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13: 2x8 SP DSS

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

**REACTIONS.** (lb/size) 13=1042/0-3-8, 8=957/Mechanical
Max Horz 13=354(LC 5)
Max Uplift 13=-193(LC 8), 8=-176(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1454/231, 3-4=-1217/228, 4-5=-1246/197, 5-6=-435/115, 6-7=-361/163, 2-13=-957/194, 7-8=-944/200
BOT CHORD 12-13=-314/1188, 11-12=-408/1699, 9-11=-199/1050
WEBS 3-12=-36/626, 4-12=-752/159, 4-11=-694/223, 5-11=0/486, 5-9=-963/285, 7-9=-111/765

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=193, 8=176.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 76 lb down and 94 lb up at 3-9-8 on top chord, and 9 lb down and 7 lb up at 3-9-8 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



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Continued on page 2



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-6=-70, 6-7=-70, 8-13=-20

Concentrated Loads (lb)

Vert: 12=3(B)

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J1 | Diagonal Hip Girder | 2 | 1 | I38965485 |
| | | | | | Job Reference (optional) |

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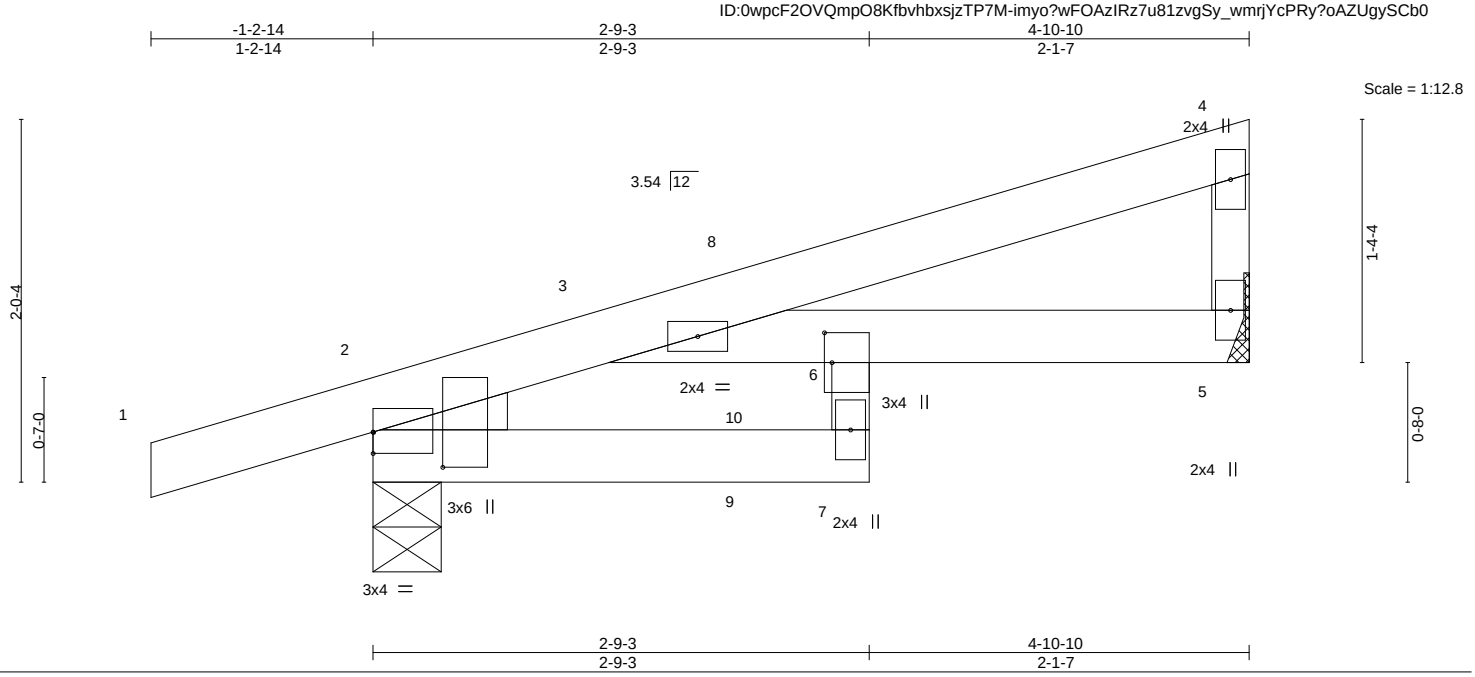



Plate Offsets (X,Y)-- [2:0-0-0,0-1-7], [2:0-2-6,0-4-11], [6:0-2-0,0-0-8]

| 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 | 0.20 | Vert(LL) | -0.01 | 6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.26 | Vert(CT) | -0.03 | 7 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | 0.01 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 7 | >999 | 240 | Weight: 16 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
6-7: 2x3 SPF No.2
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2

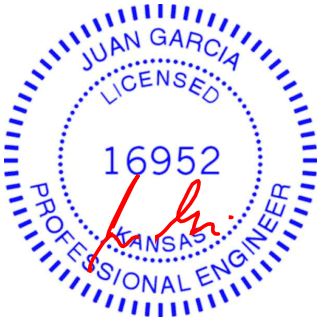
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 4-10-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=191/Mechanical, 2=322/0-4-9
Max Horz 2=65(LC 5)
Max Uplift 5=-41(LC 8), 2=-101(LC 4)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=101.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 27 lb up at 2-1-12, and 67 lb down and 27 lb up at 2-1-12 on top chord, and at 2-1-12, and at 2-1-12 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: 1-4=-70, 2-7=-20, 5-6=-20


October 18,2019



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J2 | Jack-Open | 6 | 1 | I38965486 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:16 2019 Page 1
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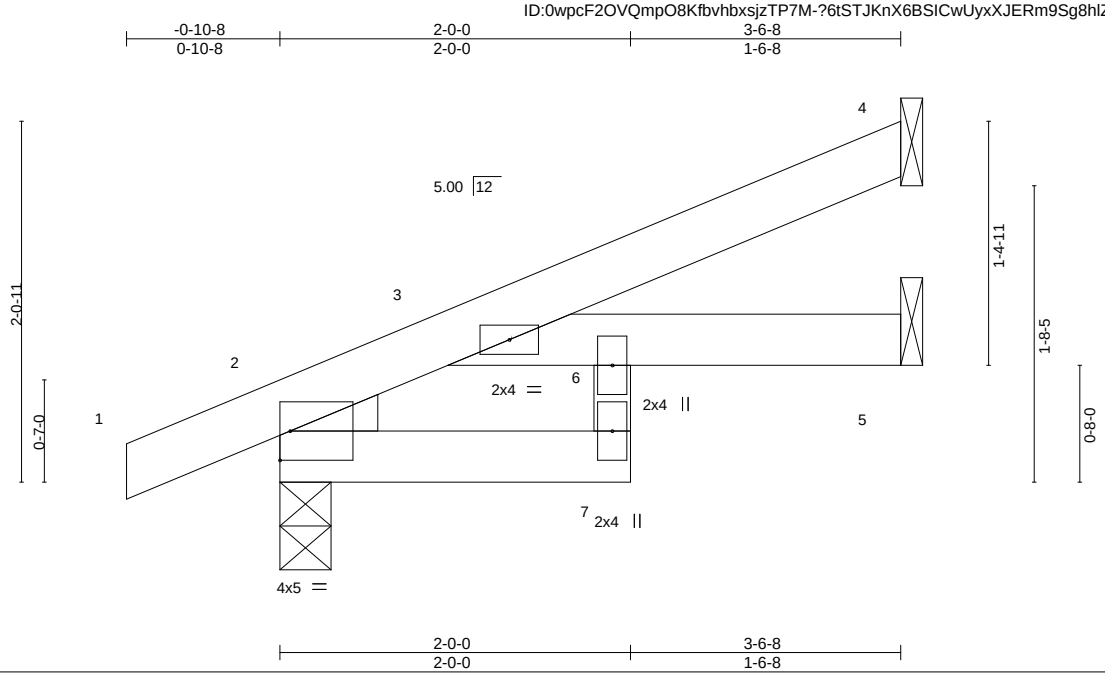


Plate Offsets (X,Y)-- [2:0-0-6,0-0-2], [2:0-4-11,0-0-5]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.10 | Vert(LL) | -0.00 | 6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.16 | Vert(CT) | -0.01 | 6 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 6 | >999 | 240 | Weight: 12 lb | FT = 10% |

**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
6-7: 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-6-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 4=86/Mechanical, 2=244/0-3-8, 5=61/Mechanical
Max Horz 2=74(LC 8)
Max Uplift 4=-39(LC 8), 2=-30(LC 8)
Max Grav 4=86(LC 1), 2=244(LC 1), 5=76(LC 3)

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

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



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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J3 | Jack-Open | 4 | 1 | I38965487 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:27 2019 Page 1
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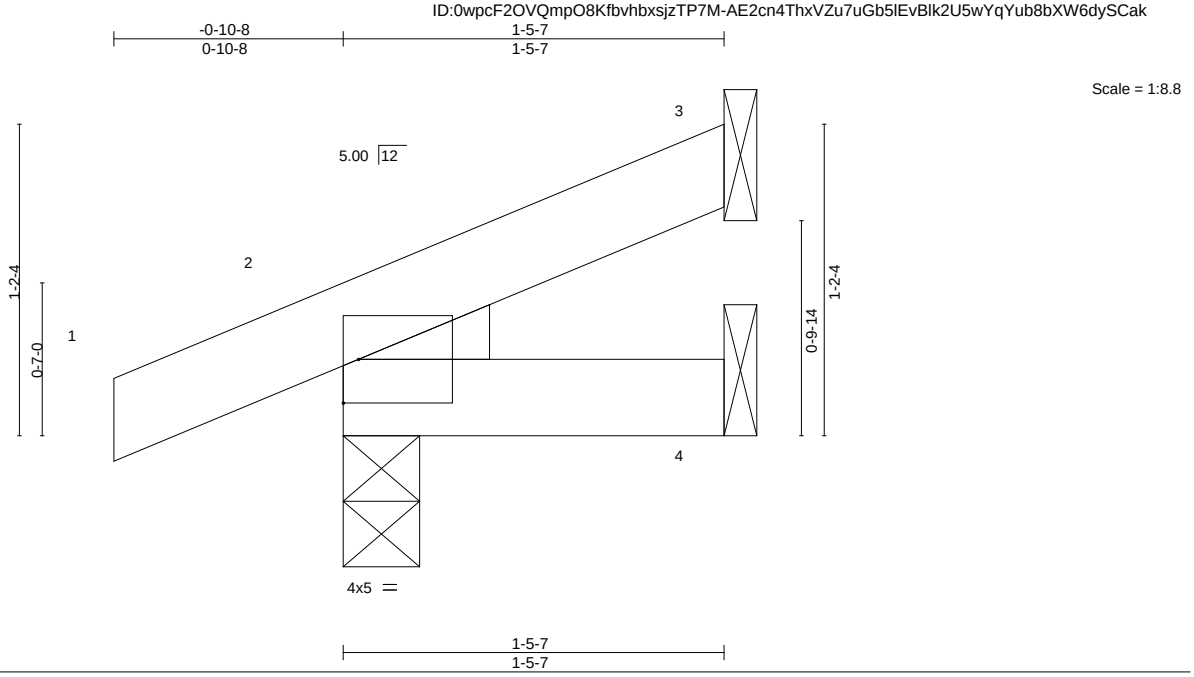



Plate Offsets (X,Y)-- [2:0-0-6,0-0-2], [2:0-4-11,0-0-5]

| 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 | 0.05 | Vert(LL) | -0.00 | 2 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | -0.00 | 2 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | Wind(LL) | 0.00 | 2 | **** | 240 | Weight: 5 lb | FT = 10% |

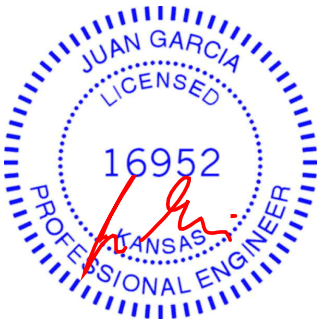
**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEDGE
Left: 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 1-5-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=29/Mechanical, 2=147/0-3-8, 4=14/Mechanical
Max Horz 2=39(LC 8)
Max Uplift 3=-25(LC 8), 2=-33(LC 4)
Max Grav 3=29(LC 1), 2=147(LC 1), 4=28(LC 3)

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

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


October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J4 | Jack-Closed | 5 | 1 | I38965488 |
| | | | | | Job Reference (optional) |

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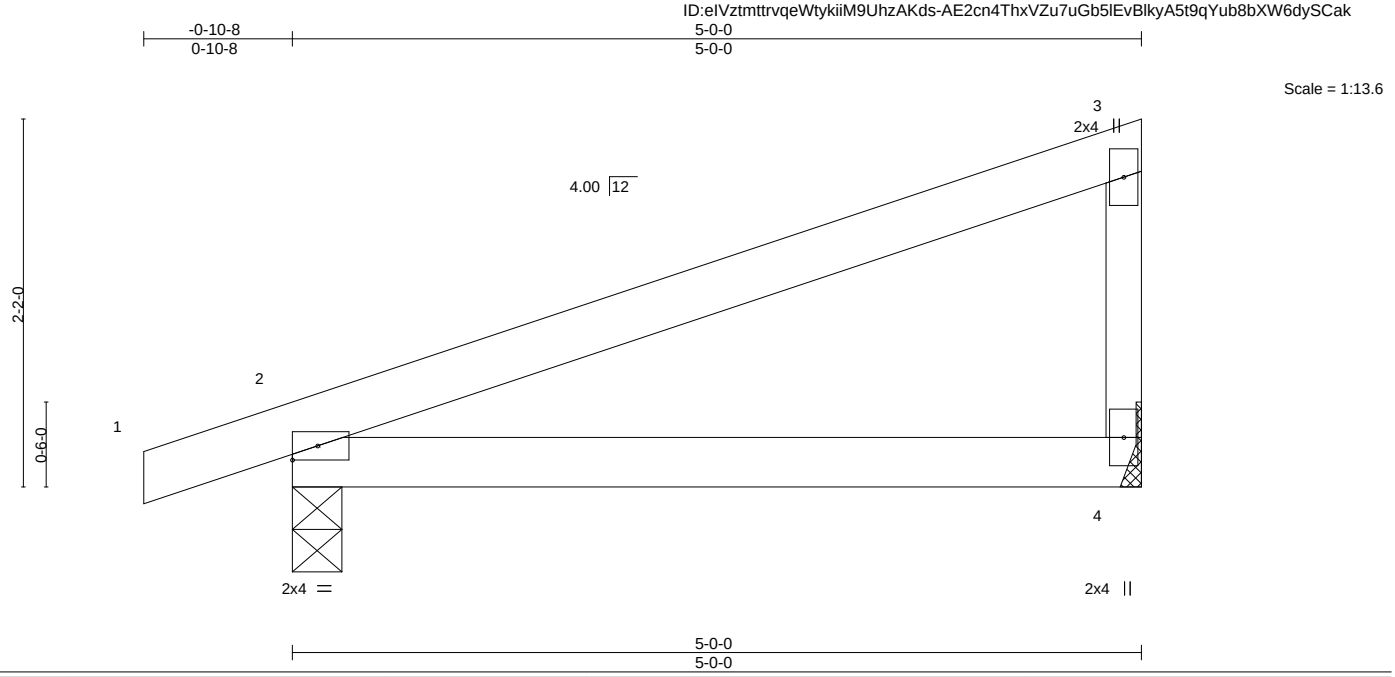


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.39 | Vert(LL) | -0.03 | 2-4 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.23 | Vert(CT) | -0.06 | 2-4 | >933 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | Wind(LL) | 0.00 | 2 | **** | 240 | Weight: 14 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** (lb/size) 4=206/Mechanical, 2=293/0-3-8
Max Horz 2=84(LC 5)
Max Uplift 4=-45(LC 8), 2=-81(LC 4)

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

**NOTES-**

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



October 18,2019

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J5 | Jack-Closed | 3 | 1 | I38965489 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:28 2019 Page 1

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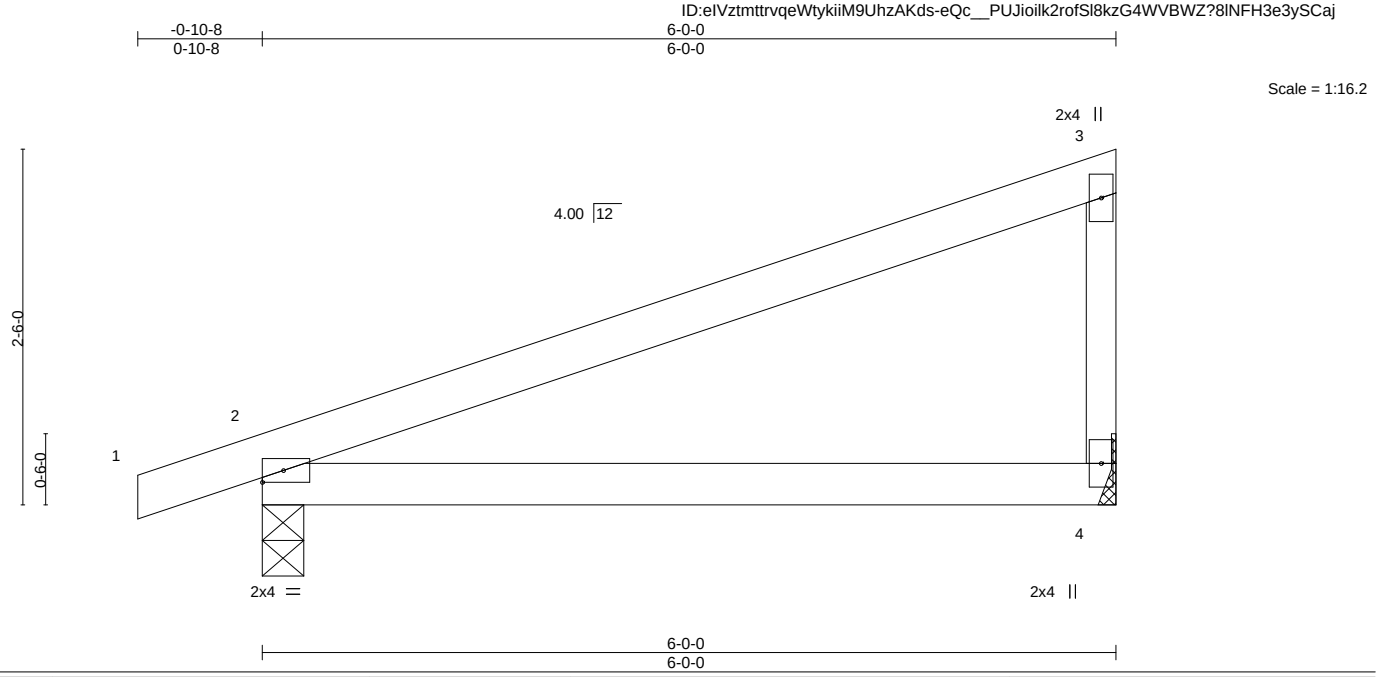



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.61 | Vert(LL) | -0.07 | 2-4 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.35 | Vert(CT) | -0.13 | 2-4 | >526 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | Wind(LL) | 0.00 | 2 | **** | 240 | Weight: 17 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

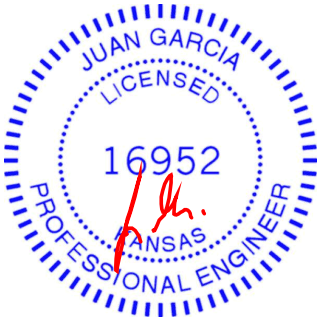
| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (lb/size) 4=252/Mechanical, 2=337/0-3-8
Max Horz 2=98(LC 5)
Max Uplift 4=-55(LC 8), 2=-88(LC 4)

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

**NOTES-**

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


October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J6 | Diagonal Hip Girder | 1 | 1 | I38965490 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 — 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:29 2019 Page 1

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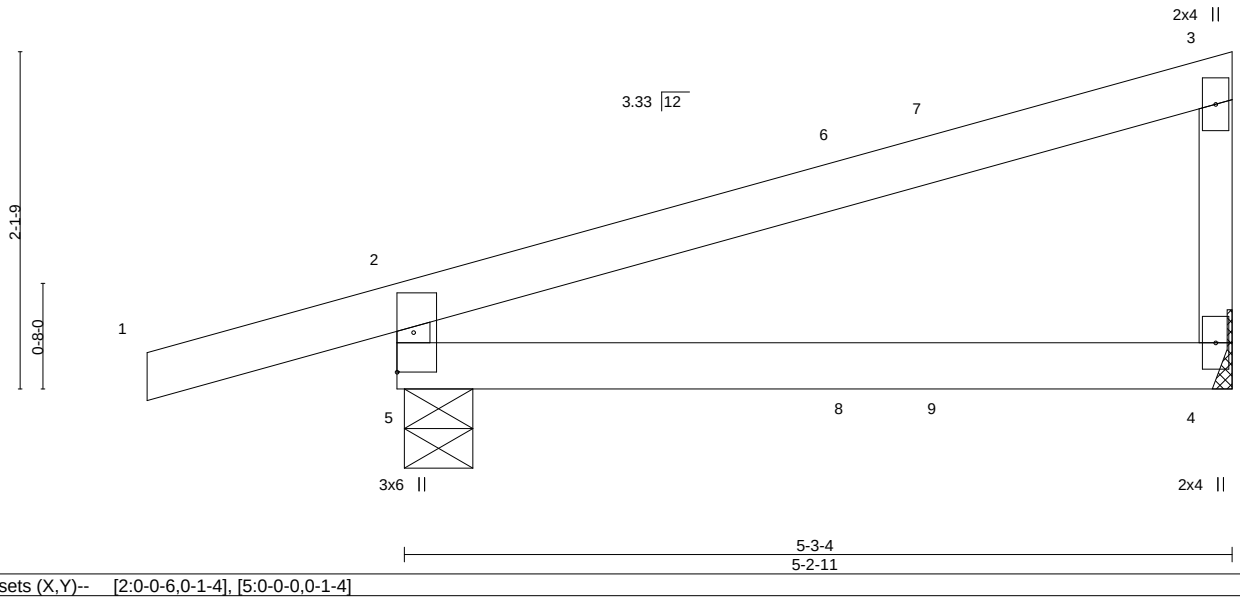
Scale = 1:14.5




5-3-4 / 5-2-11

Plate Offsets (X,Y)-- [2:0-0-6,0-1-4], [5:0-0-0,0-1-4]

| 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 | 0.34 | Vert(LL) | -0.03 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.23 | Vert(CT) | -0.05 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 4-5 | >999 | 240 | Weight: 16 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=365/0-5-3, 4=208/Mechanical
Max Horz 5=86(LC 7)
Max Uplift 5=-120(LC 4), 4=-43(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-322/154

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=120.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 59 lb down and 28 lb up at 2-11-5, and 94 lb down and 63 lb up at 3-6-6 on top chord, and 2 lb down and 1 lb up at 2-11-5, and 11 lb down at 3-6-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 2-3=-70, 4-5=-20
   Concentrated Loads (lb)
   Vert: 8=1(F)



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J6A | Diagonal Hip Girder | 1 | 1 | I38965491 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:30 2019 Page 1
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-1-6-15 5-3-4
1-6-15 5-3-4

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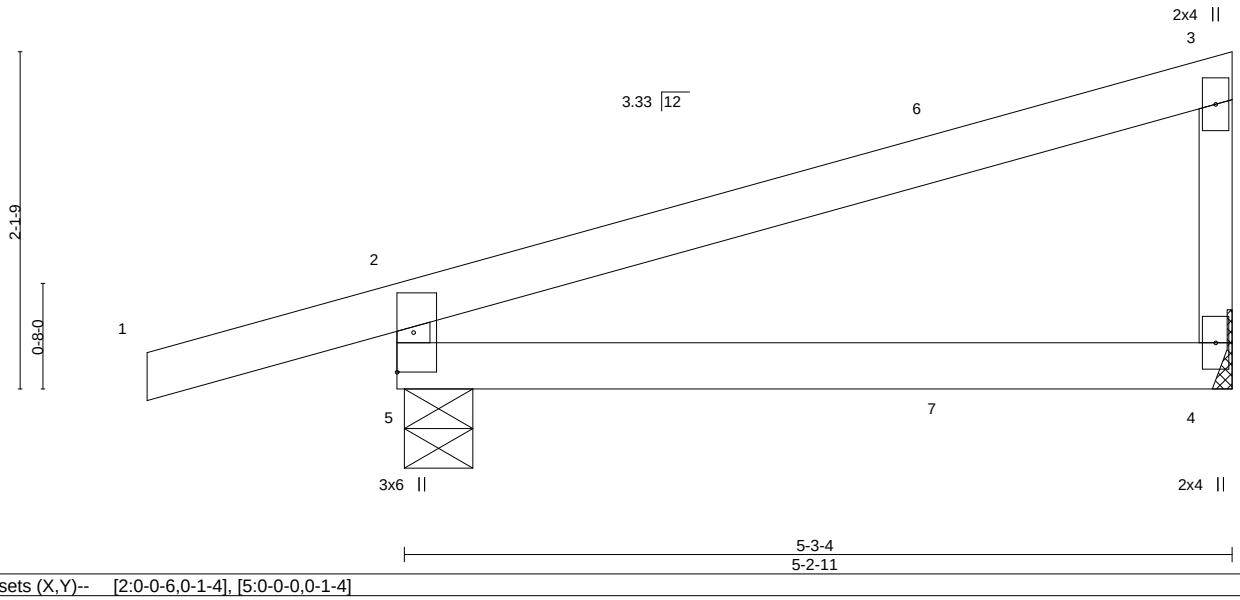


5-3-4
5-2-11

Plate Offsets (X,Y)-- [2:0-0-6,0-1-4], [5:0-0-0,0-1-4]

| 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 | 0.34 | Vert(LL) | -0.03 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.23 | Vert(CT) | -0.05 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 4-5 | >999 | 240 | Weight: 16 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=365/0-5-3, 4=208/Mechanical
Max Horz 5=86(LC 5)
Max Uplift 5=-120(LC 4), 4=-43(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-322/154

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=120.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 94 lb down and 63 lb up at 3-6-6 on top chord, and 11 lb down at 3-6-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J7 | Jack-Open | 2 | 1 | I38965492 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:30 2019 Page 1

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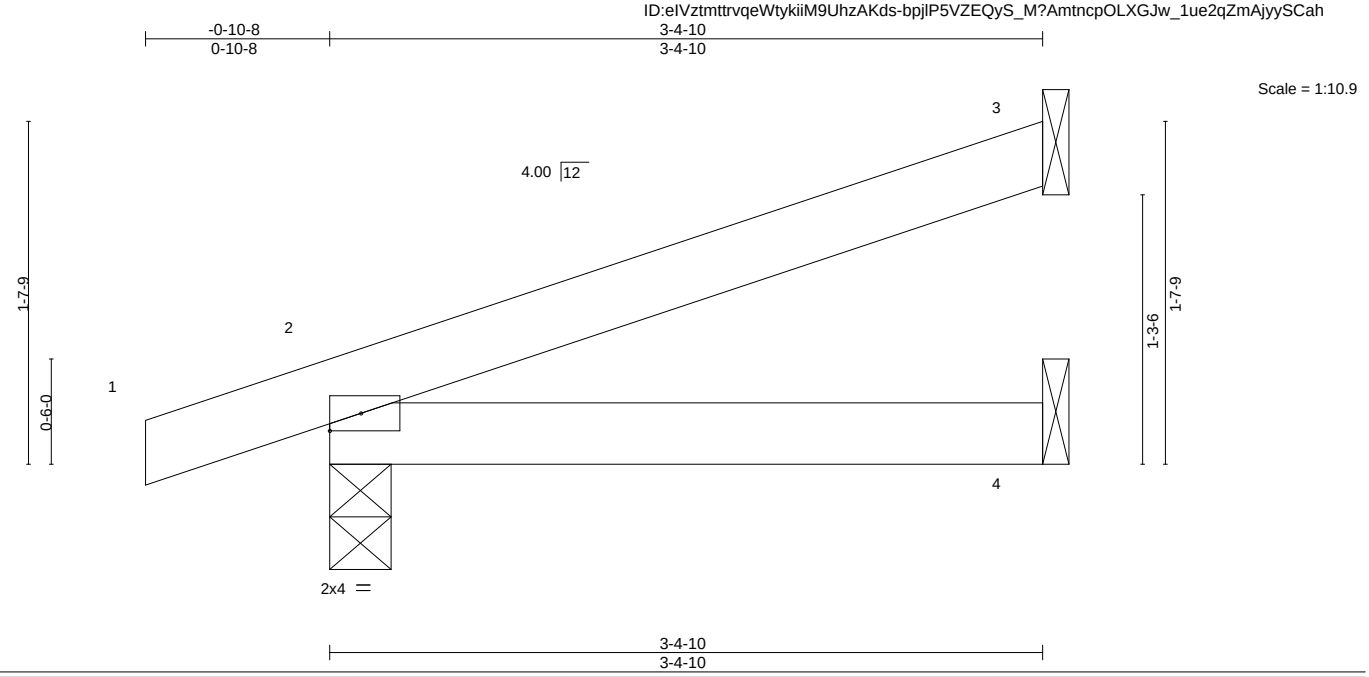



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.15 | Vert(LL) | -0.01 | 2-4 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | -0.01 | 2-4 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | Wind(LL) | 0.00 | 2 | **** | 240 | Weight: 9 lb | FT = 10% |

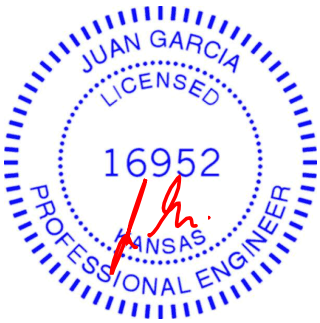
**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2

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

**REACTIONS.** (lb/size) 3=100/Mechanical, 2=226/0-3-8, 4=32/Mechanical
Max Horz 2=58(LC 4)
Max Uplift 3=-53(LC 8), 2=-66(LC 4)
Max Grav 3=100(LC 1), 2=226(LC 1), 4=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=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.


October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J8 | Jack-Open | 1 | 1 | I38965493 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:31 2019 Page 1
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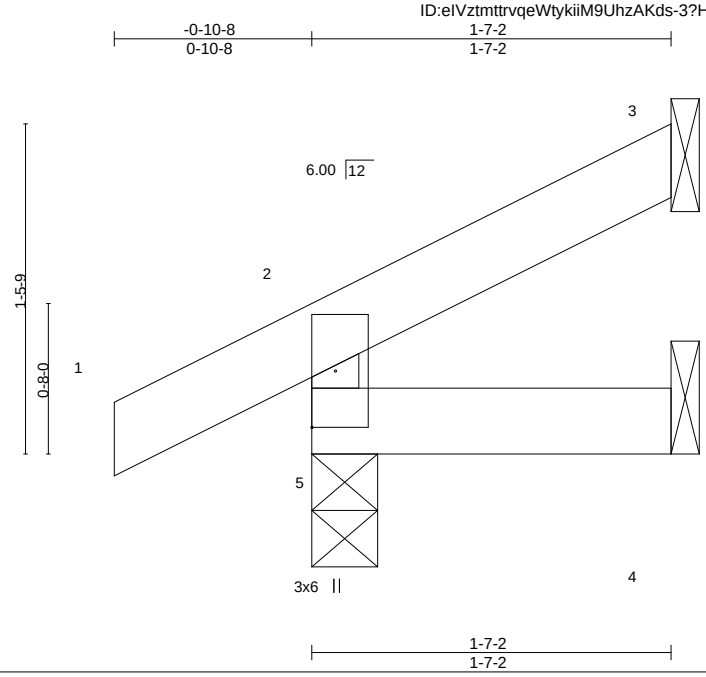


Plate Offsets (X,Y)-- [2:0-0-10,0-1-4], [5:0-0-0,0-1-4]

| 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 | 0.07 | Vert(LL) | -0.00 | 5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | -0.00 | 5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.00 | 5 | >999 | 240 | Weight: 5 lb | FT = 10% |

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

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

**REACTIONS.** (lb/size) 5=158/0-3-8, 3=32/Mechanical, 4=11/Mechanical
Max Horz 5=41(LC 8)
Max Uplift 5=-25(LC 8), 3=-25(LC 8)
Max Grav 5=158(LC 1), 3=32(LC 1), 4=27(LC 3)

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

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



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J9 | Diagonal Hip Girder | 1 | 1 | I38965494 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:31 2019 Page 1
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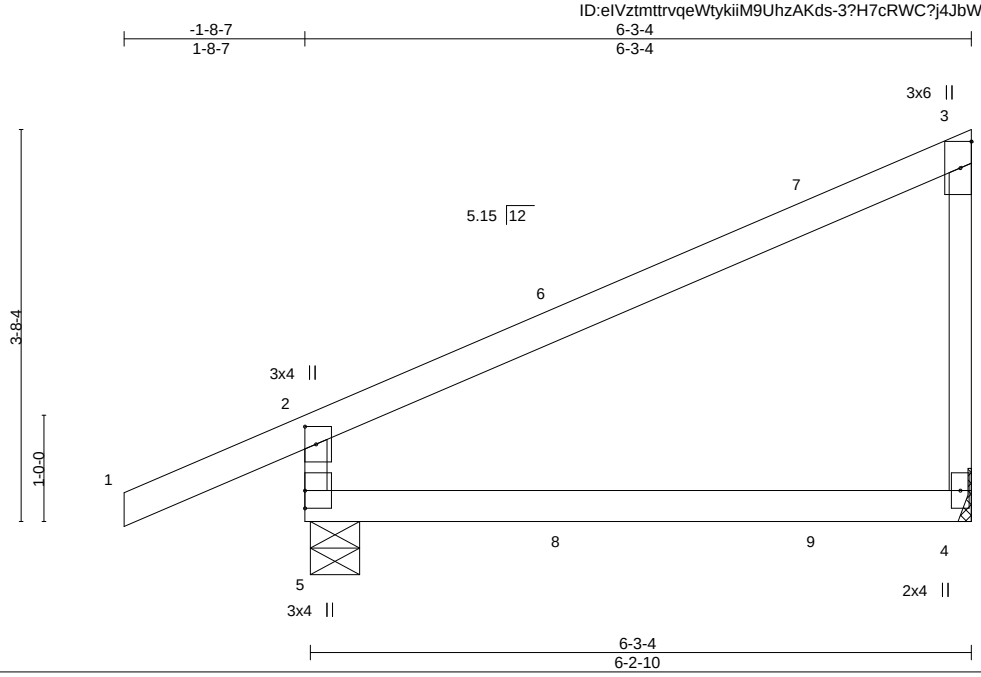


Plate Offsets (X,Y)-- [2:0-2-0,0-1-4]

| 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 | 0.55 | Vert(LL) | -0.06 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.35 | Vert(CT) | -0.12 | 4-5 | >609 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.05 | 4-5 | >999 | 240 | Weight: 20 lb | FT = 10% |

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

**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.** (lb/size) 5=418/0-5-9, 4=255/Mechanical
Max Horz 5=157(LC 22)
Max Uplift 5=-103(LC 8), 4=-116(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-367/135

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=103, 4=116.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 95 lb down and 57 lb up at 2-6-1, and 72 lb down and 34 lb up at 2-6-15, and 87 lb down and 73 lb up at 4-10-15 on top chord, and 4 lb down at 2-6-1, and 11 lb down and 18 lb up at 2-6-15, and 18 lb down and 19 lb up at 4-10-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 8=-0(F=-2, B=2) 9=-1(B)



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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J10 | Diagonal Hip Girder | 1 | 1 | I38965495 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:10 2019 Page 1
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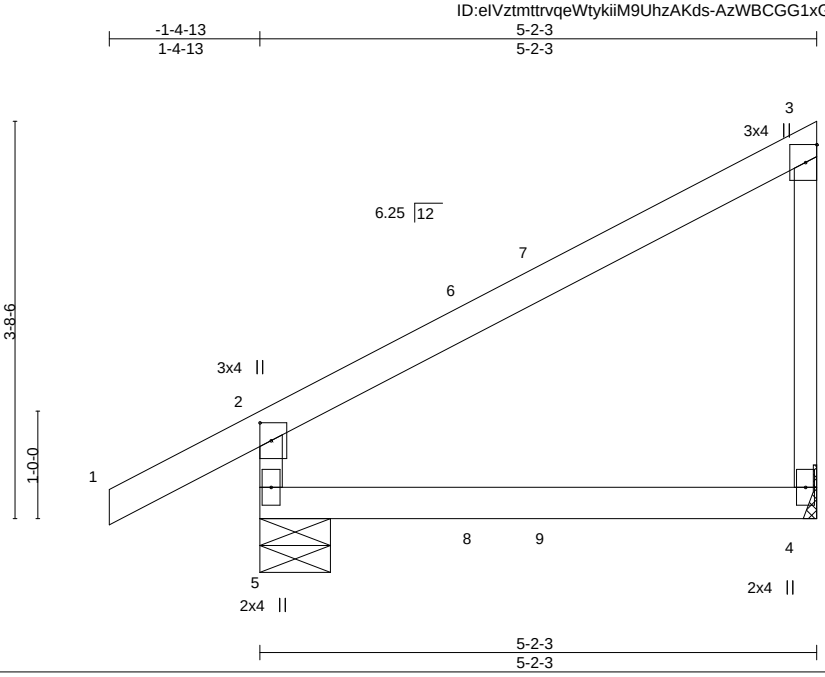


Plate Offsets (X,Y)-- [2:0-2-0,0-1-4]

| 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 | 0.37 | Vert(LL) | -0.03 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.23 | Vert(CT) | -0.06 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.03 | 4-5 | >999 | 240 | Weight: 17 lb | FT = 10% |

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

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

**REACTIONS.** (lb/size) 5=344/0-7-14, 4=207/Mechanical
Max Horz 5=149(LC 5)
Max Uplift 5=-75(LC 8), 4=-76(LC 5)
Max Grav 5=344(LC 1), 4=219(LC 31)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-302/100

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 88 lb down and 53 lb up at 2-0-15, and 79 lb down and 59 lb up at 2-9-1 on top chord, and 6 lb down and 11 lb up at 2-0-15, and 10 lb down and 18 lb up at 2-9-1 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 8=1(B) 9=1(F)



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J11 | Jack-Open | 1 | 1 | I38965496 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:11 2019 Page 1

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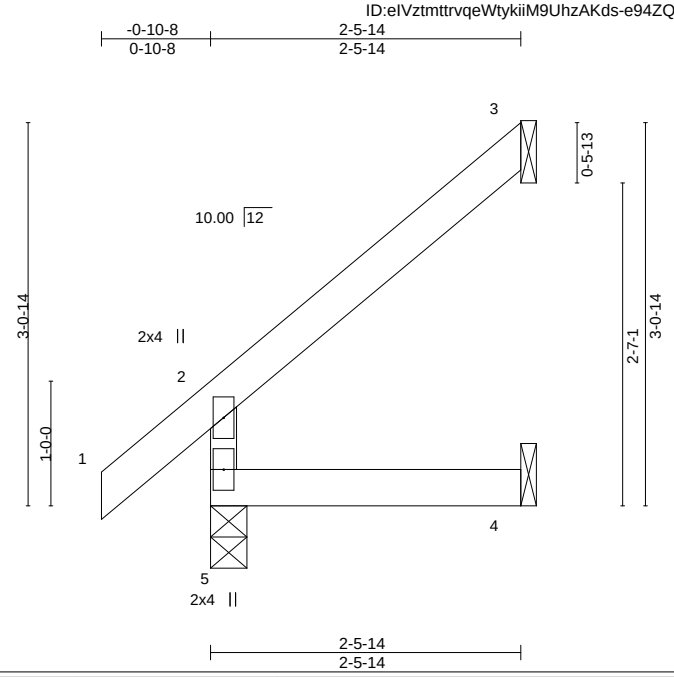


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.12 | Vert(LL) | 0.00 | 4-5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | -0.00 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.01 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 9 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-5-14 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (lb/size) 5=187/0-3-8, 3=67/Mechanical, 4=24/Mechanical
Max Horz 5=97(LC 8)
Max Uplift 3=-70(LC 8), 4=-6(LC 8)
Max Grav 5=187(LC 1), 3=78(LC 15), 4=45(LC 3)

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

**NOTES-**

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



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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J12 | Jack-Open | 10 | 1 | I38965497 |
| | | | | | Job Reference (optional) |

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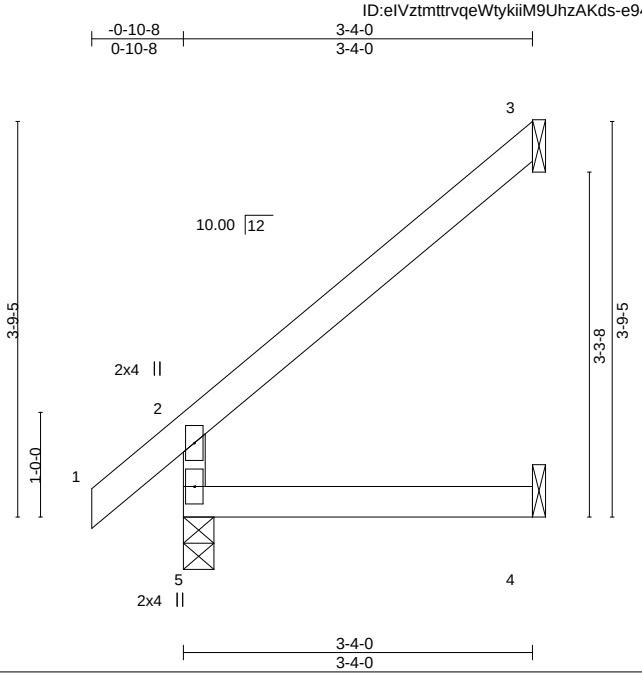


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.14 | Vert(LL) | -0.01 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.09 | Vert(CT) | -0.01 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.01 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 4-5 | >999 | 240 | Weight: 11 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** (lb/size) 5=222/0-3-8, 3=97/Mechanical, 4=35/Mechanical
Max Horz 5=88(LC 8)
Max Uplift 3=-59(LC 8)
Max Grav 5=222(LC 1), 3=107(LC 13), 4=61(LC 3)

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

**NOTES-**

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



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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J13 | Jack-Open | 1 | 1 | I38965498 |
| | | | | | Job Reference (optional) |

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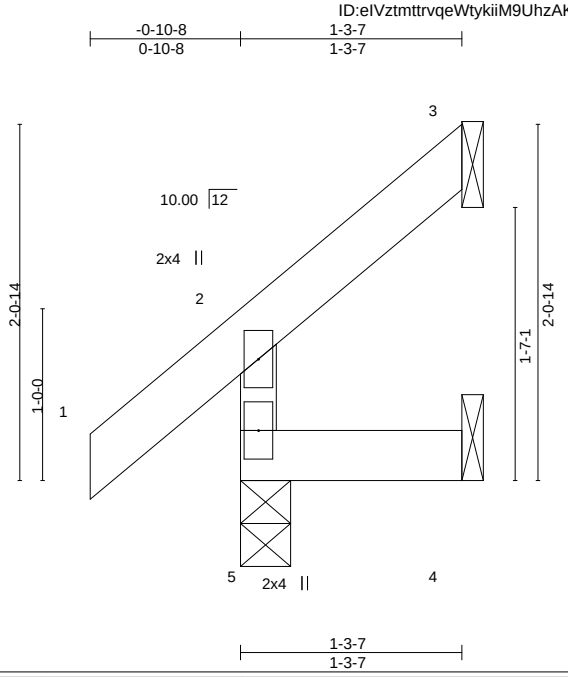



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.07 | Vert(LL) | 0.00 | 5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | 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-R | | | | | | | Weight: 5 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

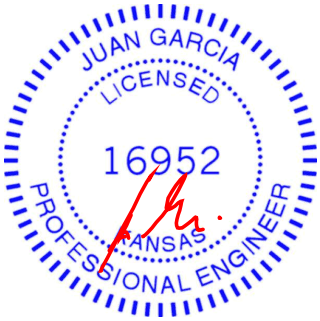
| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 1-3-7 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (lb/size) 5=150/0-3-8, 3=16/Mechanical, 4=8/Mechanical
Max Horz 5=58(LC 8)
Max Uplift 3=-36(LC 8), 4=-12(LC 8)
Max Grav 5=150(LC 1), 3=27(LC 15), 4=22(LC 3)

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

**NOTES-**

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


October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J14 | Jack-Open | 1 | 1 | I38965499 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:12 2019 Page 1
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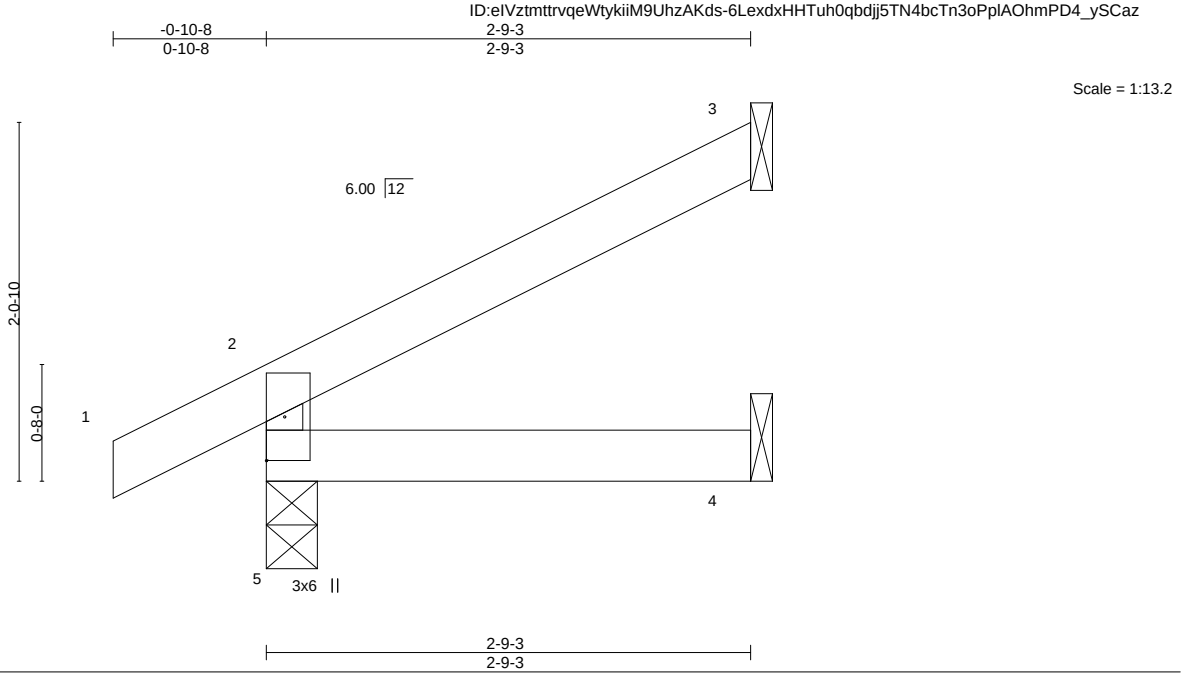


Plate Offsets (X,Y)-- [2:0-0-10,0-1-4], [5:0-0-0,0-1-4]

| 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 | 0.08 | Vert(LL) | -0.00 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.06 | Vert(CT) | -0.00 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.00 | 4-5 | >999 | 240 | Weight: 8 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-9-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=198/0-3-8, 3=77/Mechanical, 4=27/Mechanical
Max Horz 5=64(LC 8)
Max Uplift 5=-26(LC 8), 3=-47(LC 8)
Max Grav 5=198(LC 1), 3=77(LC 1), 4=49(LC 3)

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

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



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J15 | Jack-Open | 1 | 1 | I38965500 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:13 2019 Page 1

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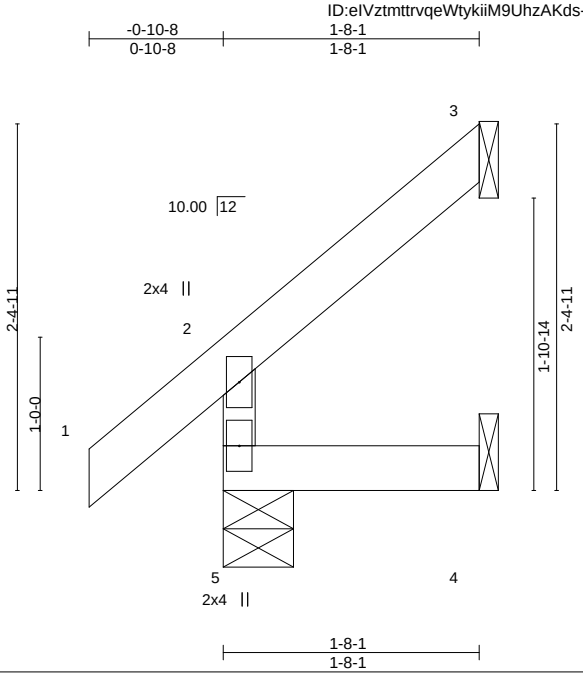


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | 0.00 | 5 | >999 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | -0.00 | 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-R | | | | | | | Weight: 6 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** (lb/size) 5=160/0-5-8, 3=35/Mechanical, 4=13/Mechanical
Max Horz 5=71(LC 8)
Max Uplift 3=-48(LC 8), 4=-9(LC 8)
Max Grav 5=160(LC 1), 3=46(LC 15), 4=29(LC 3)

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

**NOTES-**

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



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J16 | Jack-Open | 1 | 1 | I38965501 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:13 2019 Page 1
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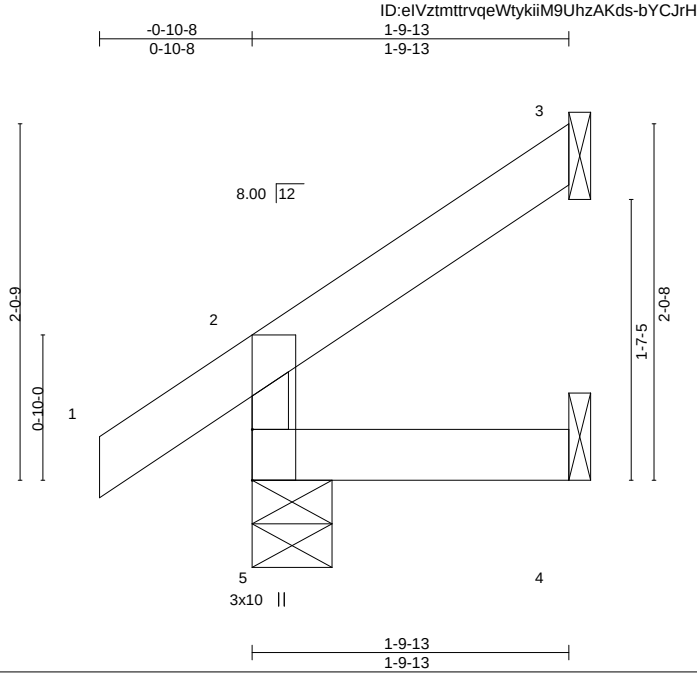



Plate Offsets (X,Y)-- [2:0-0-13,0-1-4], [5:0-0-0,0-1-4]

| 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 | 0.07 | Vert(LL) | -0.00 | 5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.00 | 5 | >999 | 240 | Weight: 6 lb | FT = 10% |

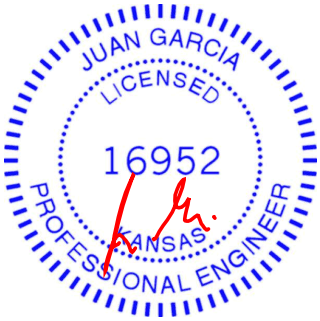
**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 1-9-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=165/0-5-8, 3=42/Mechanical, 4=15/Mechanical
Max Horz 5=61(LC 8)
Max Uplift 5=-10(LC 8), 3=-40(LC 8), 4=-2(LC 8)
Max Grav 5=165(LC 1), 3=49(LC 15), 4=32(LC 3)

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

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


October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J17 | Diagonal Hip Girder | 1 | 1 | I38965502 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:14 2019 Page 1
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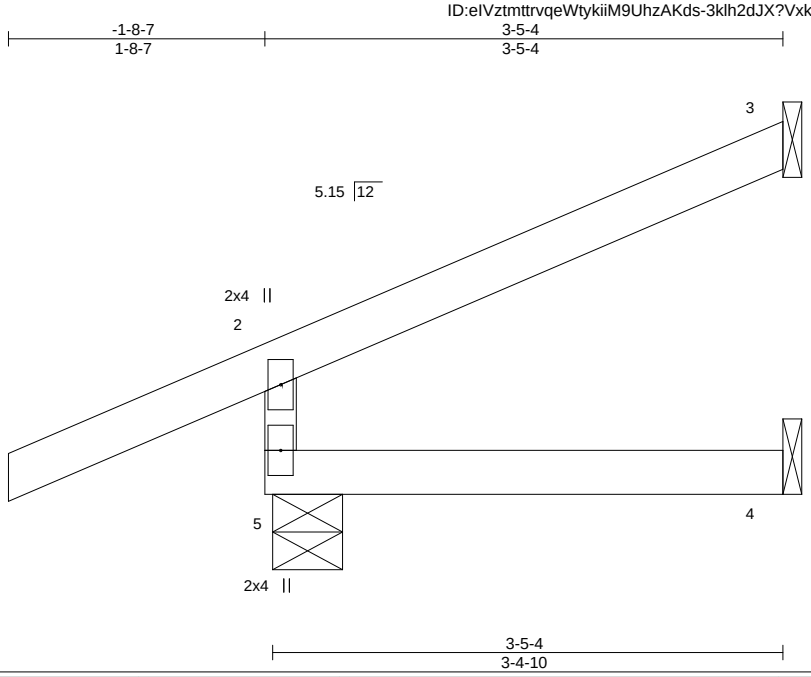


| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.25 | Vert(LL) | -0.01 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.08 | Vert(CT) | -0.01 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.01 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.01 | 4-5 | >999 | 240 | Weight: 11 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-5-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=162/0-5-9, 3=39/Mechanical, 4=11/Mechanical
Max Horz 5=96(LC 12)
Max Uplift 5=-88(LC 12), 3=-65(LC 12), 4=-3(LC 19)
Max Grav 5=162(LC 1), 3=39(LC 1), 4=47(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 36 lb down and 14 lb up at -1-8-7, and 36 lb down and 14 lb up at -1-8-7 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-54(F=-27, B=-27)
Trapezoidal Loads (plf)
Vert: 1=-0(F=35, B=35)-to-2=-32(F=19, B=19), 2=-2(F=34, B=34)-to-3=-60(F=5, B=5), 5=-0(F=10, B=10)-to-4=-17(F=1, B=1)



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J18 | Diagonal Hip Girder | 1 | 1 | I38965503 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:15 2019 Page 1
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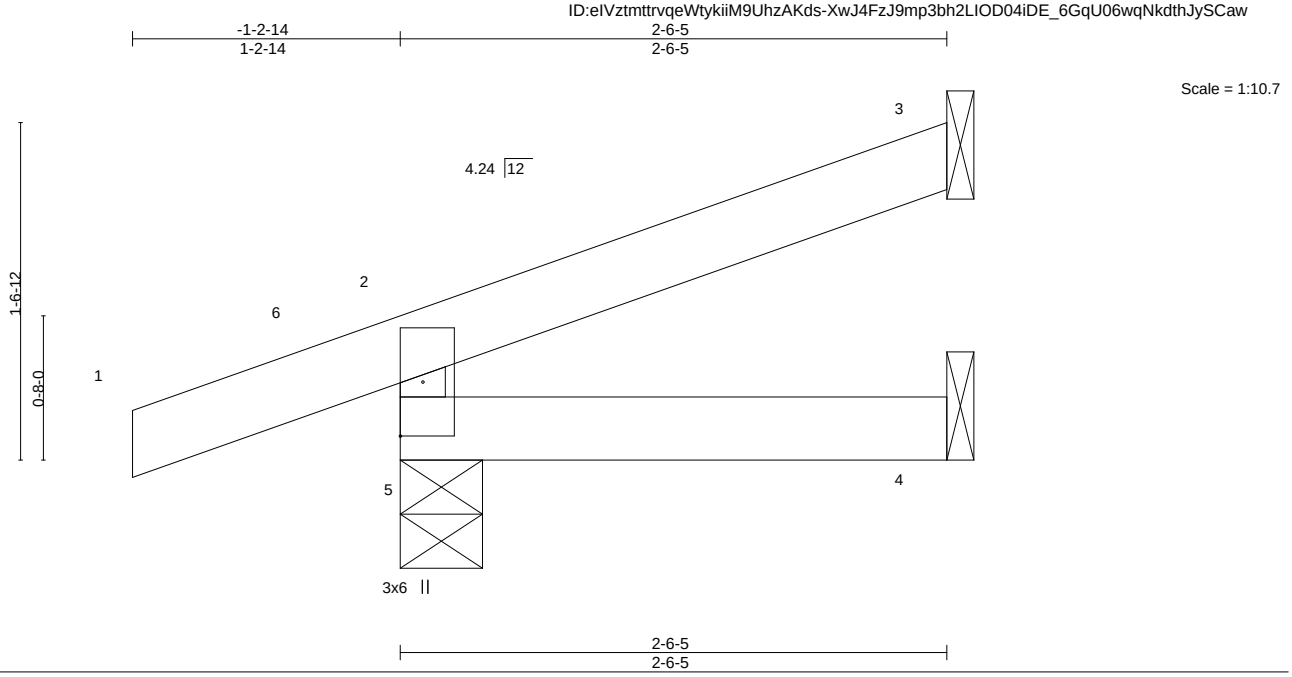


Plate Offsets (X,Y)-- [2:0-0-7,0-1-4], [5:0-0-0,0-1-4]

| 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 | 0.08 | Vert(LL) | -0.00 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.00 | 5 | >999 | 240 | Weight: 8 lb | FT = 10% |

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

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

**REACTIONS.** (lb/size) 5=81/0-4-9, 3=29/Mechanical, 4=9/Mechanical
Max Horz 5=61(LC 12)
Max Uplift 5=-105(LC 6), 3=-39(LC 12)
Max Grav 5=81(LC 1), 3=29(LC 1), 4=32(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 5=105.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 16 lb down and 6 lb up at -1-2-14, and 16 lb down and 6 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-24(F=-12, B=-12)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-6=-16(F=27, B=27), 6=0(F=35, B=35)-to-2=-7(F=31, B=31), 2=-7(F=31, B=31)-to-3=-50(F=10, B=10), 5=-2(F=9, B=9)-to-4=-14(F=3, B=3)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J19 | Jack-Closed Girder | 1 | 1 | I38965504 |
| | | | | | Job Reference (optional) |

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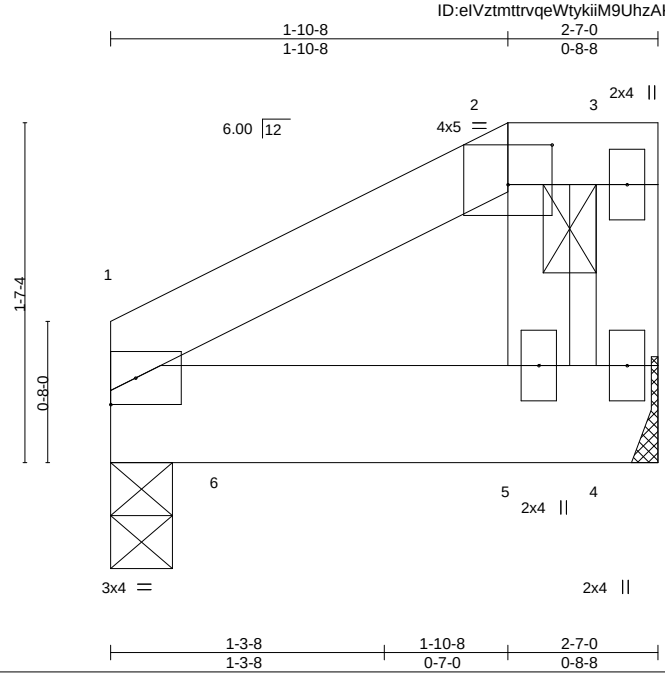


Plate Offsets (X,Y)-- [2:0-2-8,0-2-4]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.28 | Vert(LL) | -0.00 | 1-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.18 | Vert(CT) | -0.01 | 1-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.01 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.00 | 5 | >999 | 240 | Weight: 11 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-7-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=842/0-3-8, 4=308/Mechanical
Max Horz 1=51(LC 5)
Max Uplift 1=-37(LC 8), 4=-71(LC 5)
Max Grav 1=860(LC 2), 4=308(LC 1)

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

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) 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) 1, 4.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) 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) 34 lb down and 59 lb up at 2-5-4 on top chord, and 986 lb down and 38 lb up at 0-7-12, and 3 lb down and 2 lb up at 1-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 1-4=-20
Concentrated Loads (lb)
Vert: 5=1(F) 6=-945(B)



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J20 | Diagonal Hip Girder | 1 | 1 | I38965505 |

Job Reference (optional)

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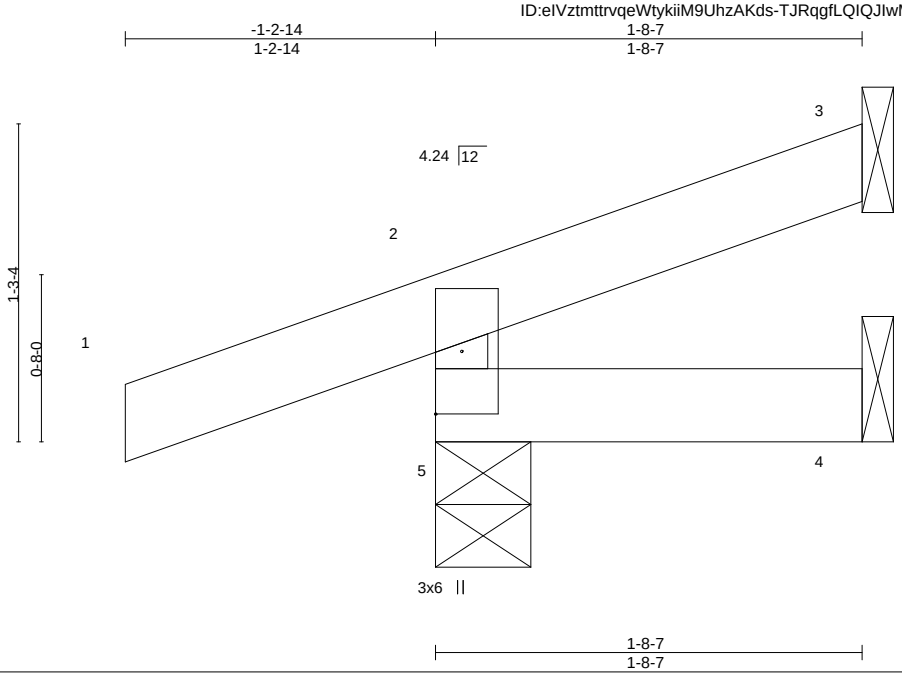


Plate Offsets (X,Y)-- [2:0-0-7,0-1-4], [5:0-0-0,0-1-4]

| 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 | 0.08 | Vert(LL) | -0.00 | 5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | -0.00 | 5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.00 | 5 | >999 | 240 | Weight: 6 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 1-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=75/0-4-9, 3=20/Mechanical, 4=6/Mechanical
Max Horz 5=46(LC 7)
Max Uplift 5=-103(LC 6), 3=-13(LC 8)
Max Grav 5=75(LC 1), 3=20(LC 1), 4=23(LC 3)

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

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 5=103.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 8 lb down and 3 lb up at -1-2-14 , and 8 lb down and 3 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Concentrated Loads (lb)
   Vert: 1=-13(F=-6, B=-6)
   Trapezoidal Loads (plf)
   Vert: 1=0(F=35, B=35)-to-2=-23(F=24, B=24), 2=-23(F=24, B=24)-to-3=-50(F=10, B=10), 5=-6(F=7, B=7)-to-4=-14(F=3, B=3)



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J21 | Jack-Open | 1 | 1 | I38965506 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:21 2019 Page 1

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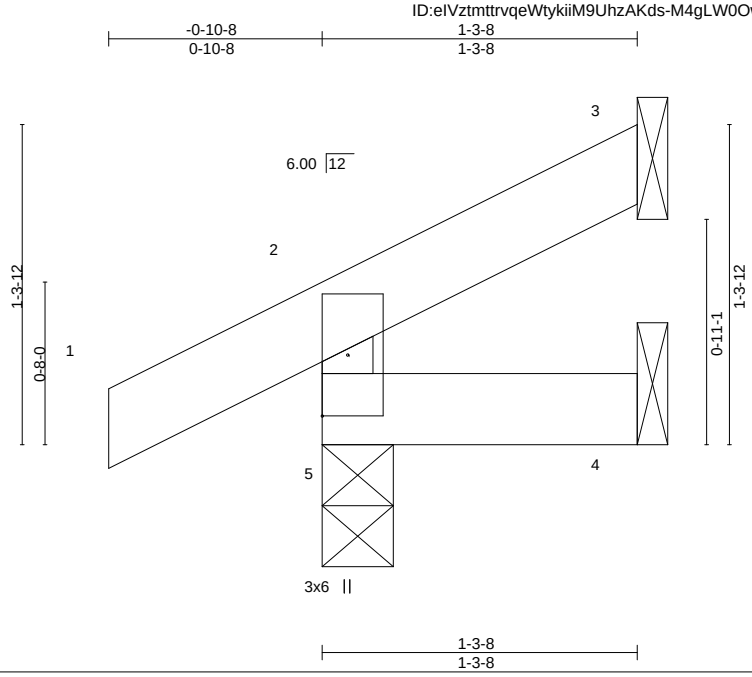


Plate Offsets (X,Y)-- [2:0-0-10,0-1-4], [5:0-0-0,0-1-4]

| 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 | 0.07 | Vert(LL) | -0.00 | 5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.01 | Vert(CT) | -0.00 | 5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | 0.00 | 5 | >999 | 240 | Weight: 5 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 1-3-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=150/0-3-8, 3=17/Mechanical, 4=7/Mechanical
Max Horz 5=35(LC 8)
Max Uplift 5=-26(LC 8), 3=-18(LC 8)
Max Grav 5=150(LC 1), 3=17(LC 1), 4=21(LC 3)

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

**NOTES-**

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



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J22 | JACK-CLOSED SUPPORTE | 2 | 1 | I38965507 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:21 2019 Page 1

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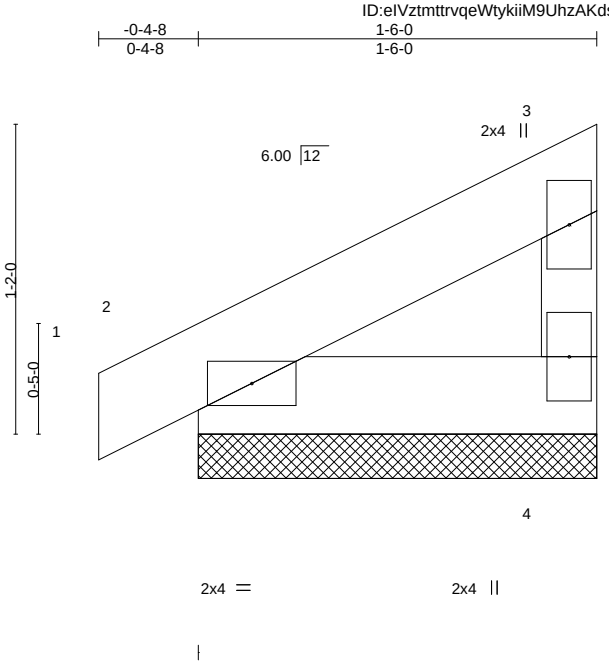


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.03 | Vert(LL) | -0.00 | 1 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | 0.00 | 1 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 5 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (lb/size) 4=59/1-6-0, 2=93/1-6-0
Max Horz 2=35(LC 5)
Max Uplift 4=-15(LC 8), 2=-17(LC 8)

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

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J23 | JACK-CLOSED | 2 | 1 | I38965508 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:22 2019 Page 1

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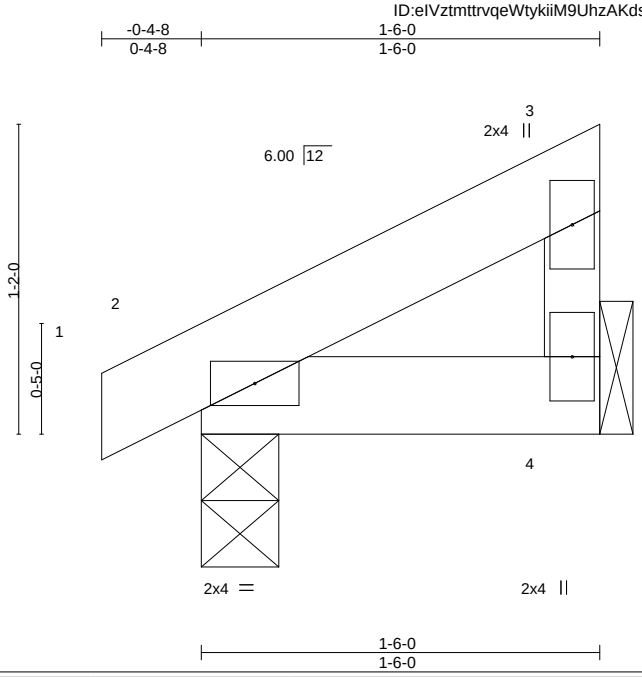


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.02 | Vert(LL) | -0.00 | 2 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02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

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (lb/size) 4=57/Mechanical, 2=94/0-3-8
Max Horz 2=35(LC 5)
Max Uplift 4=-15(LC 8), 2=-17(LC 8)

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

**NOTES-**

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



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J24 | Diagonal Hip Girder | 1 | 1 | I38965509 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:24 2019 Page 1
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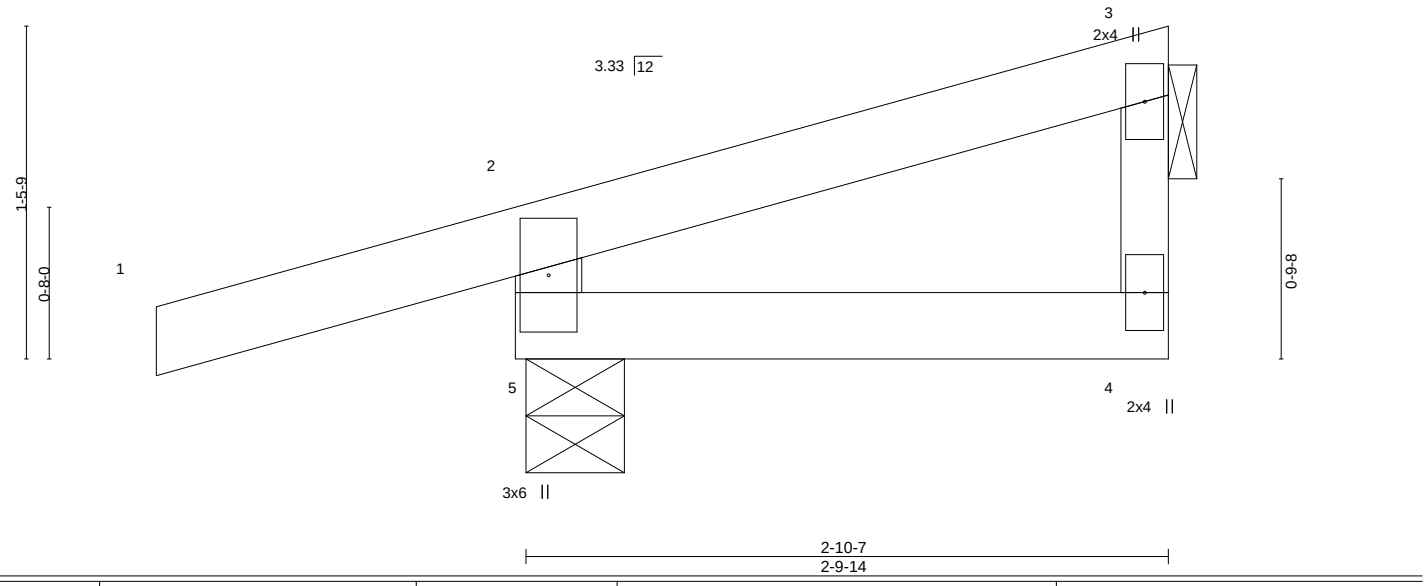
-1-6-15 2-10-7
1-6-15 2-10-7

Scale = 1:10.1




2-10-7
2-9-14

| 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 | 0.19 | Vert(LL) | -0.00 | 4-5 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | -0.00 | 4-5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-R | | Wind(LL) | -0.00 | 4-5 | >999 | 240 | Weight: 10 lb | FT = 10% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-10-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=132/0-5-3, 4=22/Mechanical
Max Horz 5=83(LC 7)
Max Uplift 5=-111(LC 6), 4=-36(LC 12)
Max Grav 5=132(LC 1), 4=41(LC 3)

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=111.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 28 lb down and 10 lb up at -1-6-15, and 28 lb down and 10 lb up at -1-6-15 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-43(F=-21, B=-21)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-30(F=20, B=20), 2=-2(F=34, B=34)-to-3=-49(F=10, B=10), 5=0(F=10, B=10)-to-4=-14(F=3, B=3)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | J25 | Jack-Closed | 5 | 1 | I38965510 |
| | | | | | Job Reference (optional) |

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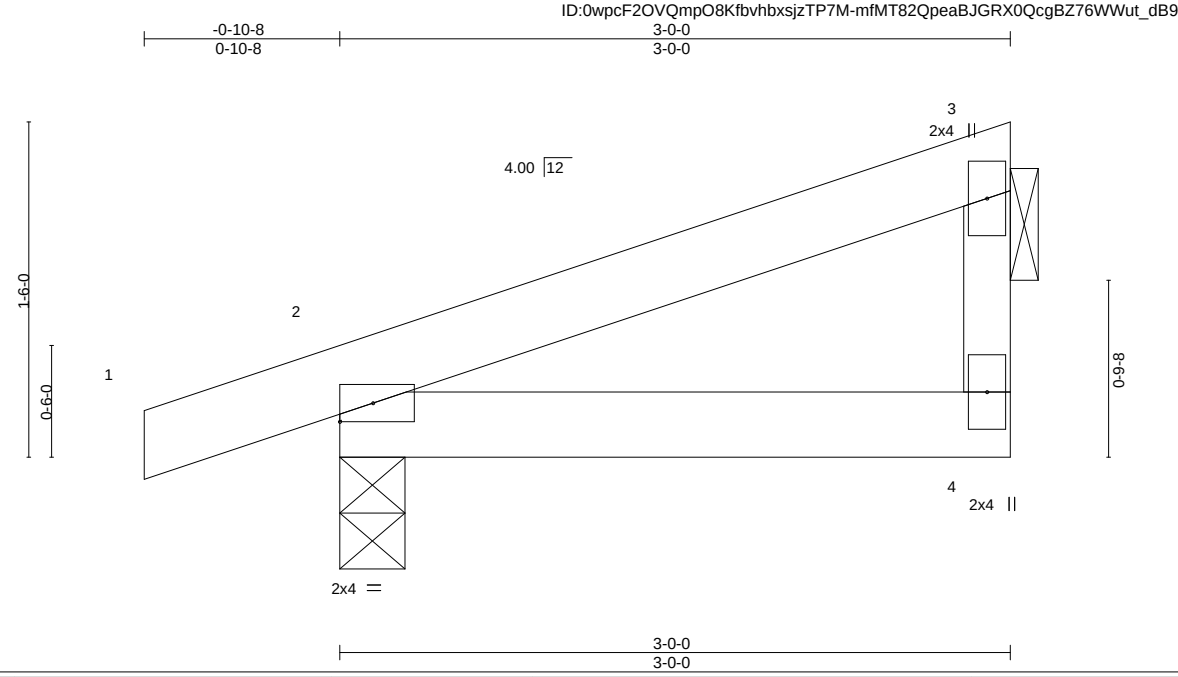


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.10 | Vert(LL) | -0.00 | 2-4 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | -0.01 | 2-4 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | Wind(LL) | 0.00 | 2 | **** | 240 | Weight: 9 lb | FT = 10% |

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

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

**REACTIONS.** (lb/size) 4=110/Mechanical, 2=208/0-3-8
Max Horz 2=54(LC 5)
Max Uplift 4=-24(LC 8), 2=-70(LC 4)

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

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



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | K1 | Roof Special Girder | 1 | 2 | I38965511 |
| | | | | | Job Reference (optional) |

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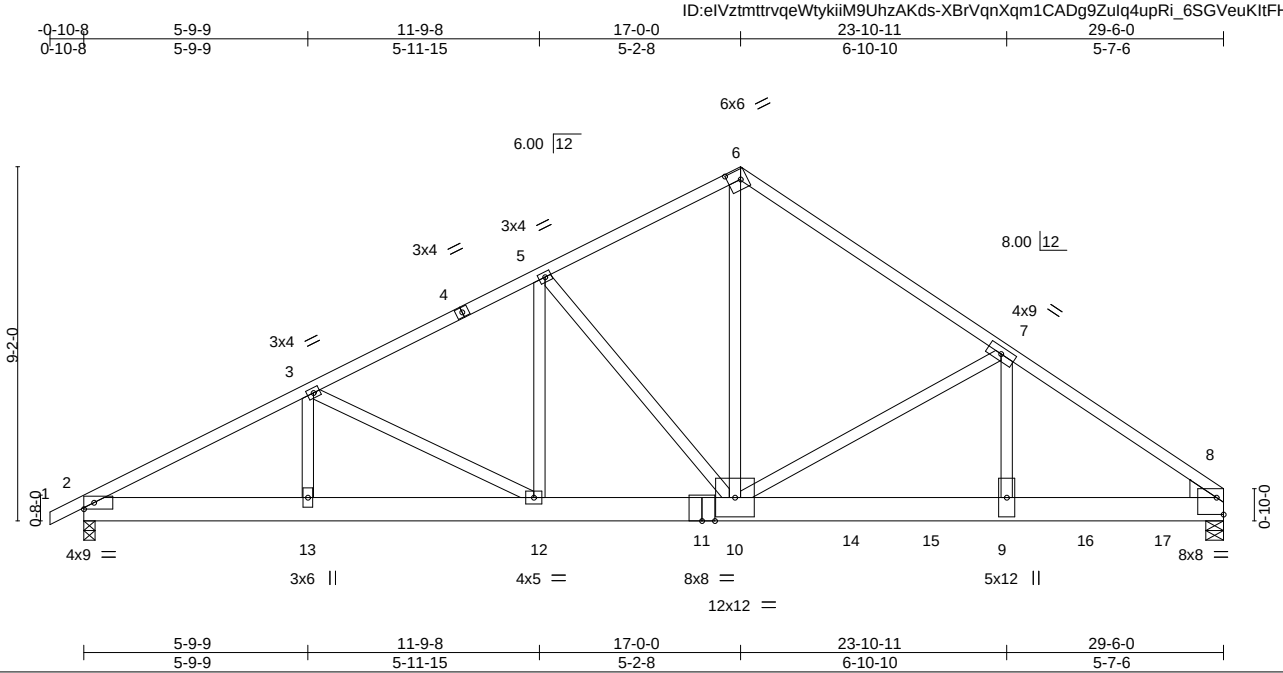


Plate Offsets (X,Y)-- [6:0-3-15,0-3-0], [8:0-1-1,0-0-12], [8:0-7-11,0-1-7], [8:Edge,0-5-4]

| 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 | 0.84 | Vert(LL) | -0.16 | 9-10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.75 | Vert(CT) | -0.29 | 9-10 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.66 | Horz(CT) | 0.04 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.12 | 9-10 | >999 | 240 | Weight: 360 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SPF No.2
WEDGE
Right: 2x6 SPF No.2

**BRACING-**

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

**REACTIONS.** (lb/size) 2=2624/0-3-8, 8=5003/0-5-8
Max Horz 2=247(LC 5)
Max Uplift 2=-363(LC 8), 8=-312(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4868/638, 3-5=-4362/598, 5-6=-4268/637, 6-7=-4565/679, 7-8=-7569/776
BOT CHORD 2-13=-636/4187, 12-13=-636/4187, 10-12=-485/3817, 9-10=-550/5950, 8-9=-550/5950
WEBS 3-13=0/272, 3-12=-432/203, 5-12=-396/339, 5-10=-617/533, 6-10=-542/3923, 7-10=-2670/357, 7-9=-105/2922

**NOTES-**

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
   Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-3-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) The Fabrication Tolerance at joint 8 = 6%
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=363, 8=312.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2935 lb down and 505 lb up at 19-10-7, 507 lb down and 73 lb up at 21-11-4, 507 lb down and 42 lb up at 23-11-4, and 507 lb down at 25-11-4, and 507 lb down at 27-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



**LOAD CASE(S)** Standard

October 18,2019

Continued on page 2



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-6=-70, 6-8=-70, 2-8=-20
   Concentrated Loads (lb)
   Vert: 9=-507(F) 14=-2907(F) 15=-507(F) 16=-507(F) 17=-507(F)




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | K2 | Roof Special | 1 | 1 | I38965512 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:33 2019 Page 1

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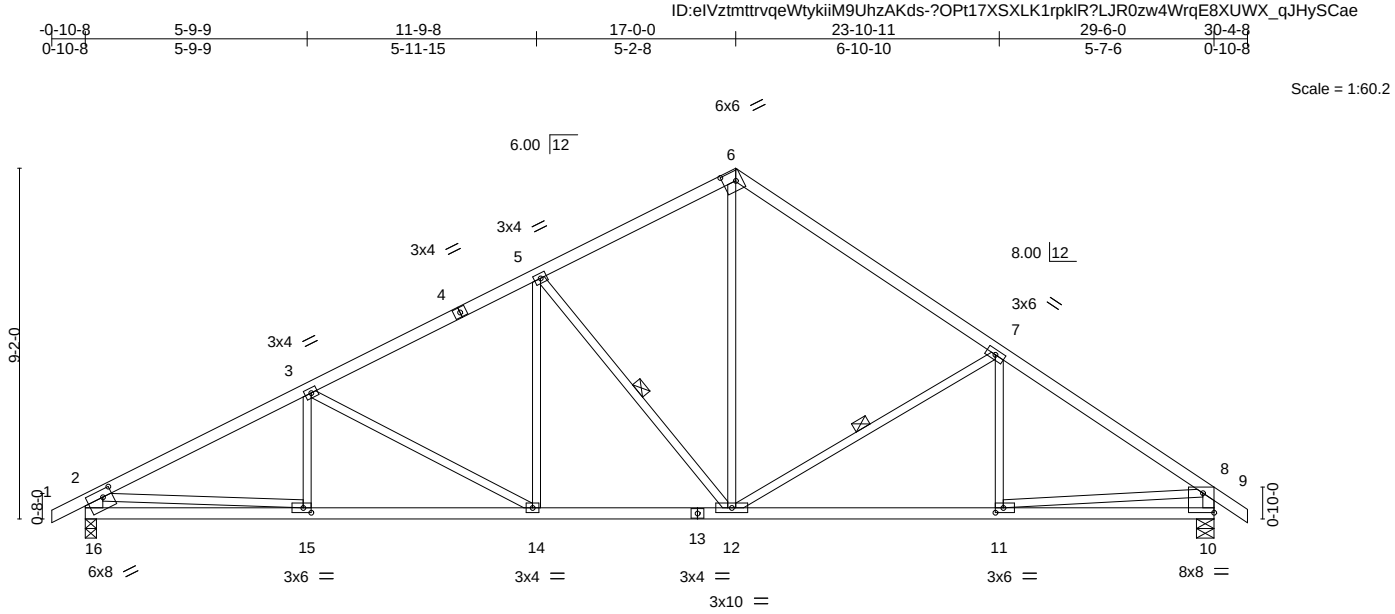



Plate Offsets (X,Y)-- [6:0-3-15,0-3-0], [10:Edge,0-6-2], [10:0-1-12,0-0-0], [11:0-2-8,0-1-8], [15:0-2-8,0-1-8], [16:0-2-7,0-1-4], [16:0-3-0,0-2-4]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.68 | Vert(LL) | -0.09 | 14-15 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.54 | Vert(CT) | -0.19 | 14-15 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.50 | Horz(CT) | 0.05 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 14-15 | >999 | 240 | Weight: 120 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 1 Row at midpt 5-12, 7-12 |

**REACTIONS.** (lb/size) 16=1388/0-3-8, 10=1382/0-5-8
Max Horz 16=270(LC 7)
Max Uplift 16=-201(LC 8), 10=-160(LC 9)

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

| | |
|---|---|
| TOP CHORD | 2-3=-2173/288, 3-5=-1761/264, 5-6=-1292/236, 6-7=-1429/257, 7-8=-1818/197, 2-16=-1326/230, 8-10=-1327/185 |
| BOT CHORD | 15-16=-249/545, 14-15=-316/1861, 12-14=-174/1493, 11-12=-76/1434, 10-11=-65/274 |
| WEBS | 3-14=-438/161, 5-14=-15/347, 5-12=-681/225, 6-12=-129/859, 7-12=-477/228, 2-15=-67/1321, 8-11=-51/1167 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=201, 10=160.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

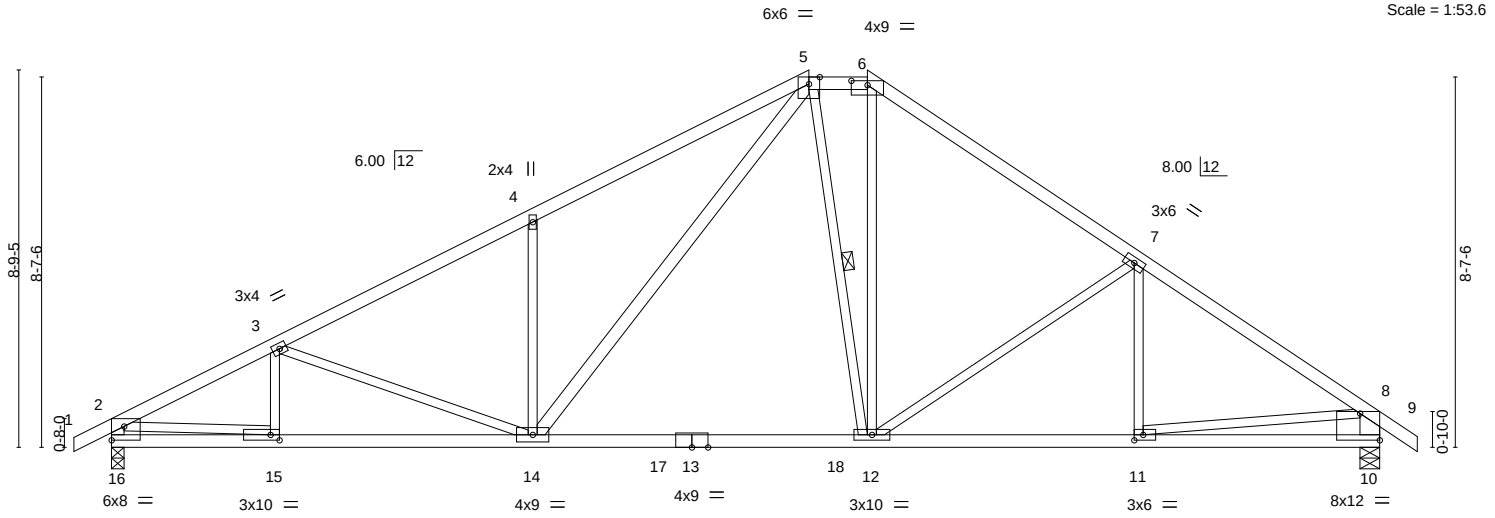
| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | K3 | Hip | 1 | 1 | I38965513 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 — 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:34 2019 Page 1

ID:eIVztmttrvqeWtykiiM9UhzAKds-TazFFTY4IeSuSzIx?jsYzEW7xw7BzZLdlBkNsjySCad

| -0-10-8 | 3-9-10 | 9-9-9 | 16-2-11 | 17-7-0 | 23-10-12 | 29-6-0 | 30-4-8 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 3-9-10 | 5-11-15 | 6-5-2 | 1-4-5 | 6-3-11 | 5-7-5 | 0-10-8 |

Scale = 1:53.6




| 3-9-10 | 9-9-9 | 16-2-11 | 17-7-0 | 23-10-12 | 29-6-0 |
|---|---|---|---|---|---|
| 3-9-10 | 5-11-15 | 6-5-2 | 1-4-5 | 6-3-11 | 5-7-5 |

Plate Offsets (X,Y)-- [6:0-4-8,0-1-3], [10:Edge,0-7-7], [10:0-2-12,0-0-0], [11:0-2-8,0-1-8], [15:0-2-8,0-1-8], [16:0-1-12,0-0-0], [16:Edge,0-3-13]

| 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 | 0.55 | Vert(LL) | -0.20 | 12-14 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.78 | Vert(CT) | -0.33 | 12-14 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.59 | Horz(CT) | 0.05 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 14-15 | >999 | 240 | Weight: 128 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
5-14,2-16: 2x4 SPF No.2, 8-10: 2x6 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-4-1 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-9 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-12

**REACTIONS.** (lb/size) 16=1382/0-3-8, 10=1388/0-5-8
Max Horz 16=259(LC 7)
Max Uplift 16=-196(LC 8), 10=-157(LC 9)
Max Grav 16=1436(LC 2), 10=1466(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2270/288, 3-4=-2059/267, 4-5=-2065/414, 5-6=-1198/222, 6-7=-1545/233, 7-8=-1857/189, 2-16=-1355/210, 8-10=-1368/186
BOT CHORD 15-16=-188/455, 14-15=-336/1991, 12-14=-44/1218, 11-12=-62/1476, 10-11=-71/313
WEBS 3-14=-259/132, 4-14=-457/260, 5-14=-274/939, 5-12=-338/178, 6-12=-104/638, 7-12=-430/209, 2-15=-177/1602, 8-11=-40/1192

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=196, 10=157.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | K4 | Hip | 1 | 1 | I38965514 |
| | | | | | Job Reference (optional) |

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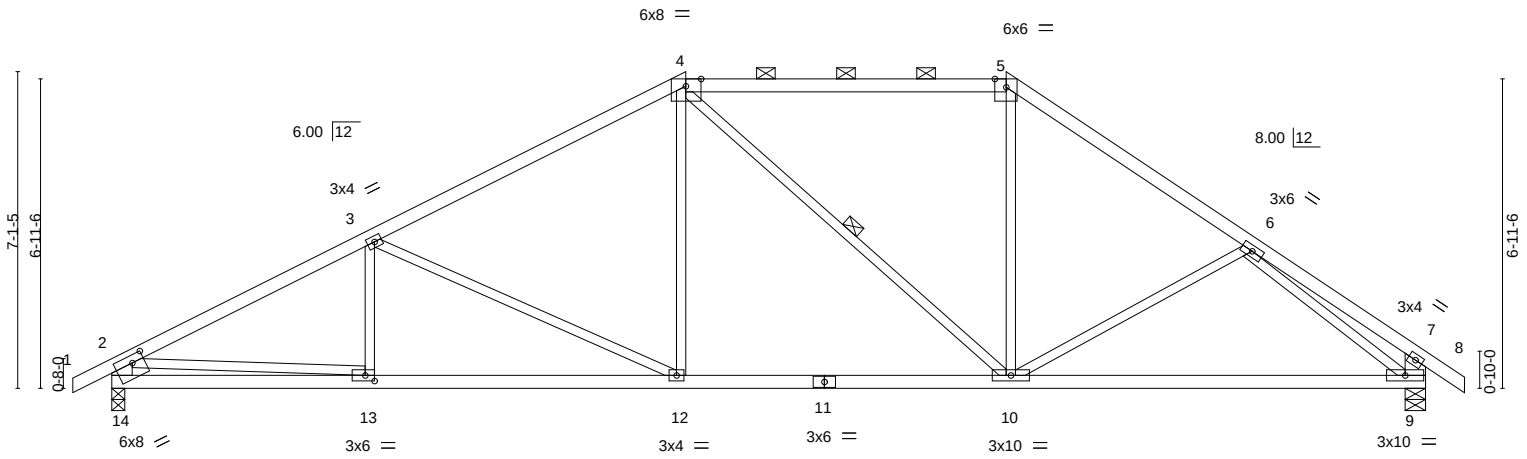
ID:eIVztmttrvqeWtykiiM9UhzAKds-xmXeSpZi3yal47t8ZQNnWR3BiKTVizTn_rTxO9ySCac

| -0-10-8 | 5-9-8 | 12-10-11 | 20-1-0 | 25-6-2 | 29-6-0 | 30-4-8 |
|---|---|---|---|---|---|---|
| 0-10-8 | 5-9-8 | 7-1-2 | 7-2-5 | 5-5-2 | 3-11-15 | 0-10-8 |

Scale = 1:51.7




| 5-9-8 | 12-10-11 | 20-1-0 | 29-6-0 |
|---|---|---|---|
| 5-9-8 | 7-1-2 | 7-2-5 | 9-5-0 |

Plate Offsets (X,Y)-- [4:0-4-2,Edge], [5:0-3-1,Edge], [13:0-2-8,0-1-8], [14:0-3-4,0-2-0], [14:0-2-7,0-1-4]

| 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 | 1.00 | Vert(LL) | -0.17 | 9-10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.78 | Vert(CT) | -0.35 | 9-10 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.79 | Horz(CT) | 0.07 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.06 | 12-13 | >999 | 240 | Weight: 115 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

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

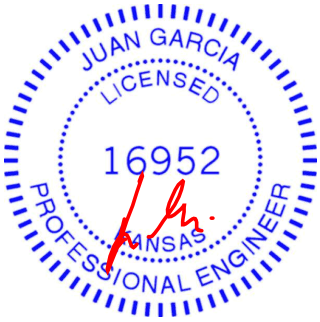
**REACTIONS.** (lb/size) 14=1384/0-3-8, 9=1384/0-5-8
Max Horz 14=212(LC 7)
Max Uplift 14=-175(LC 8), 9=-137(LC 9)
Max Grav 14=1431(LC 2), 9=1430(LC 2)

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

| | |
|---|---|
| TOP CHORD | 2-3=-2278/249, 3-4=-1784/190, 4-5=-1332/177, 5-6=-1685/147, 6-7=-475/16, 2-14=-1334/202, 7-9=-417/63 |
| BOT CHORD | 13-14=-193/535, 12-13=-249/1975, 10-12=-101/1512, 9-10=-94/1375 |
| WEBS | 3-12=-528/216, 4-12=-11/512, 4-10=-340/118, 5-10=-3/505, 2-13=-80/1477, 6-9=-1401/190 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=175, 9=137.
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.


October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | K5 | Hip | 1 | 1 | I38965515 |
| | | | | | Job Reference (optional) |

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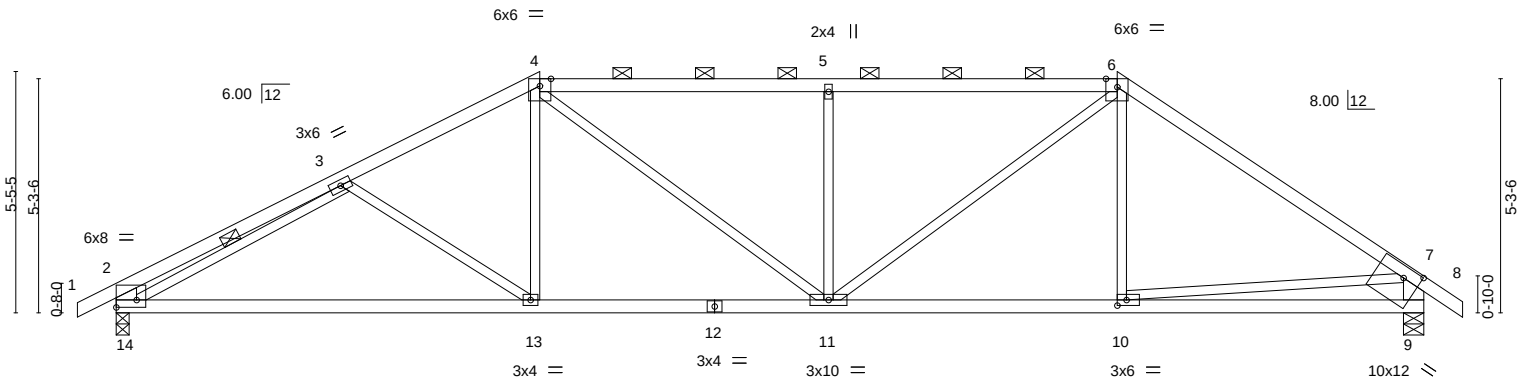
ID:eIVztmttrvqeWtykiiM9UhzAKds-Pz40g9aKqGiciHSK78u02fbRKkqORVzwDVDUwbySCab

| -0-10-8 | 5-2-0 | 9-6-11 | 16-0-13 | 22-7-0 | 29-6-0 | 30-4-8 |
|---|---|---|---|---|---|---|
| 0-10-8 | 5-2-0 | 4-4-10 | 6-6-3 | 6-6-3 | 6-11-0 | 0-10-8 |

Scale = 1:52.0




| 9-6-11 | 16-0-13 | 22-7-0 | 29-6-0 |
|---|---|---|---|
| 9-6-11 | 6-6-3 | 6-6-3 | 6-11-0 |

Plate Offsets (X,Y)-- [2:Edge,0-2-0], [2:0-2-12,0-1-6], [6:0-3-1,Edge], [9:0-4-8,0-3-0], [9:0-2-5,0-1-8], [10:0-2-8,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.62 | Vert(LL) | -0.19 | 13-14 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.74 | Vert(CT) | -0.39 | 13-14 | >885 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.46 | Horz(CT) | 0.07 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.07 | 11-13 | >999 | 240 | Weight: 112 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 3-6-8 oc purlins, except end verticals, and 2-0-0 oc purlins (3-5-8 max.): 4-6. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 1 Row at midpt 3-14 |

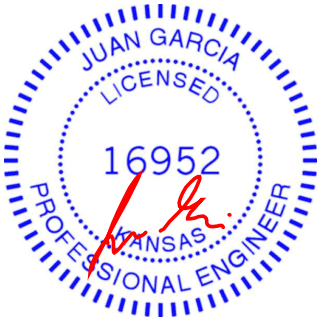
**REACTIONS.** (lb/size) 14=1384/0-3-8, 9=1384/0-5-8
Max Horz 14=166(LC 7)
Max Uplift 14=-144(LC 8), 9=-110(LC 9)

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

| | |
|---|---|
| TOP CHORD | 2-3=-763/104, 3-4=-1926/182, 4-5=-1950/259, 5-6=-1949/259, 6-7=-1774/182, 2-14=-576/135, 7-9=-1322/148 |
| BOT CHORD | 13-14=-257/1802, 11-13=-199/1668, 10-11=-84/1360, 9-10=-229/517 |
| WEBS | 4-13=0/346, 4-11=-149/475, 5-11=-564/229, 6-11=-203/818, 3-14=-1397/150, 7-10=-220/967 |

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=144, 9=110.
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.


October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | K6 | Hip Girder | 1 | 1 | I38965516 |
| | | | | | Job Reference (optional) |

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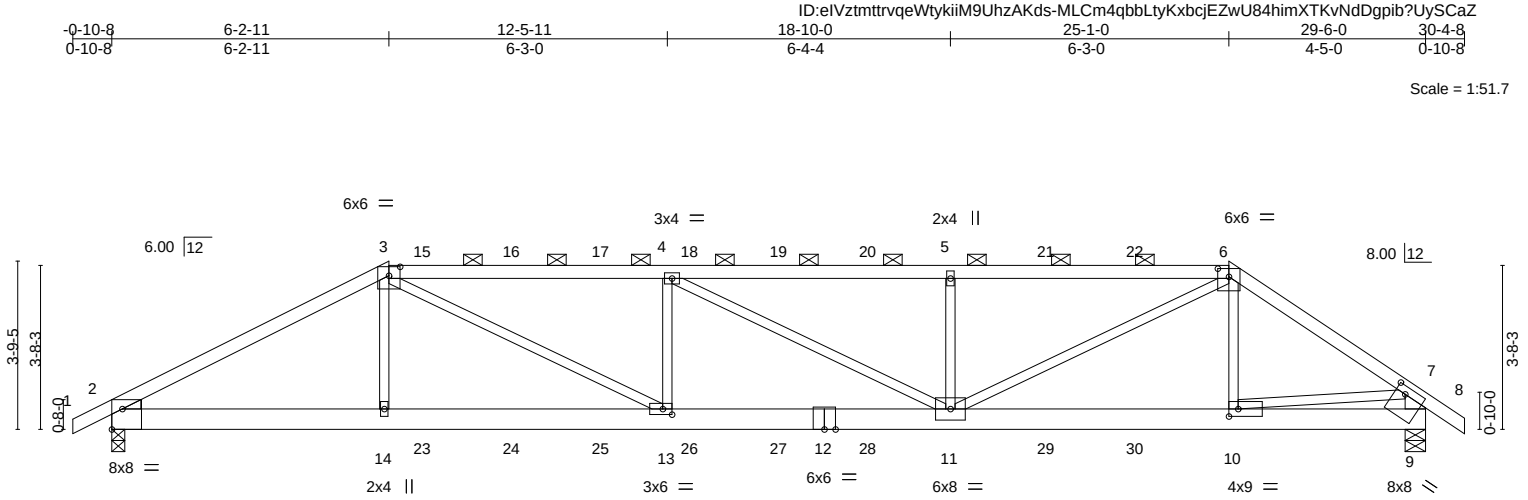


Plate Offsets (X,Y)-- [2:Edge,0-5-8], [2:0-6-3,0-1-7], [2:0-1-7,0-0-11], [3:0-3-0,0-2-7], [6:0-3-0,0-2-3], [9:0-2-12,0-2-0], [9:0-2-5,0-1-8], [10:0-2-8,0-2-0], [13:0-2-8,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.94 | Vert(LL) | -0.21 | 11-13 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.84 | Vert(CT) | -0.37 | 11-13 | >934 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.64 | Horz(CT) | 0.07 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.20 | 11-13 | >999 | 240 | Weight: 121 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-14 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 7-4-1 oc bracing.

**REACTIONS.** (lb/size) 2=1769/0-3-8, 9=1811/0-5-8
Max Horz 2=111(LC 7)
Max Uplift 2=-414(LC 8), 9=-407(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3124/787, 3-4=-3794/1005, 4-5=-3570/948, 5-6=-3572/949, 6-7=-2431/622, 7-9=-1741/415
BOT CHORD 2-14=-726/2643, 13-14=-724/2630, 11-13=-1016/3792, 10-11=-477/1954, 9-10=-136/448
WEBS 3-14=-71/415, 3-13=-389/1412, 4-13=-496/281, 4-11=-271/95, 5-11=-580/302, 6-11=-515/1861, 7-10=-457/1542

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=414, 9=407.
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) 93 lb down and 65 lb up at 7-0-0, 95 lb down and 65 lb up at 9-0-0, 95 lb down and 65 lb up at 11-0-0, 95 lb down and 65 lb up at 13-0-0, 95 lb down and 65 lb up at 15-0-0, 95 lb down and 65 lb up at 17-0-0, 95 lb down and 65 lb up at 19-0-0, 95 lb down and 65 lb up at 21-0-0, and 95 lb down and 65 lb up at 23-0-0, and 87 lb down and 67 lb up at 25-1-0 on top chord, and 216 lb down and 155 lb up at 6-2-11, 28 lb down at 7-0-0, 28 lb down at 9-0-0, 28 lb down at 11-0-0, 28 lb down at 13-0-0, 28 lb down at 15-0-0, 28 lb down at 17-0-0, 28 lb down at 19-0-0, 28 lb down at 21-0-0, and 28 lb down at 23-0-0, and 190 lb down and 108 lb up at 25-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

STATE OF MISSOURI — JUAN GARCIA — NUMBER E-2000162101 — PROFESSIONAL ENGINEER

JUAN GARCIA — LICENSED — 16952 — KANSAS — PROFESSIONAL ENGINEER

October 18,2019



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
      Vert: 1-3=-70, 3-6=-70, 6-7=-70, 7-8=-70, 2-9=-20
   Concentrated Loads (lb)
      Vert: 6=-27(B) 14=-216(B) 5=-27(B) 11=-15(B) 10=-190(B) 15=-27(B) 16=-27(B) 17=-27(B) 18=-27(B) 19=-27(B) 20=-27(B) 21=-27(B) 22=-27(B) 23=-15(B) 24=-15(B) 25=-15(B) 26=-15(B) 27=-15(B) 28=-15(B) 29=-15(B) 30=-15(B)




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | LAY1 | GABLE | 1 | 1 | I38965517 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:39 2019 Page 1
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4-4-9 8-9-2
4-4-9 4-4-9

Scale = 1:31.0

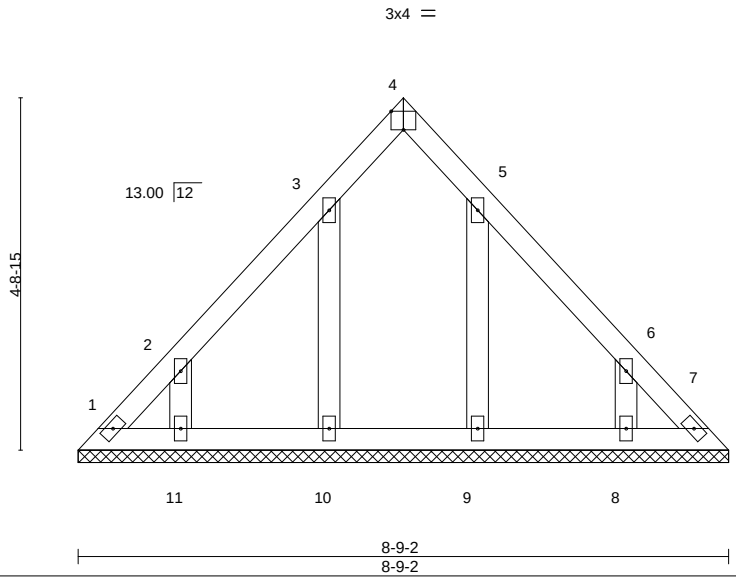


Plate Offsets (X,Y)-- [4:Edge,0-3-0], [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.04 | 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 | 0.03 | Horz(CT) | 0.00 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 33 lb | FT = 10% |

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

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

**REACTIONS.** All bearings 8-9-2.
(lb) - Max Horz 1=-117(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 10, 9 except 11=-124(LC 8), 8=-125(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 11, 10, 9, 8

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

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 10, 9 except (jt=lb) 11=124, 8=125.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | LAY2 | Lay-In Gable | 1 | 1 | I38965518 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:39 2019 Page 1

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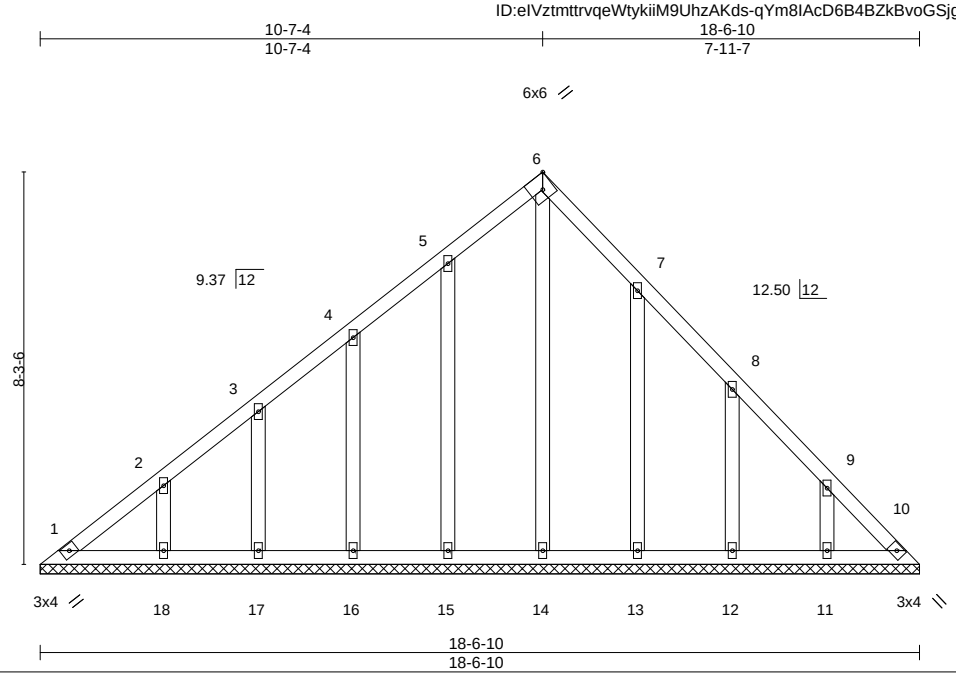


Plate Offsets (X,Y)-- [6:0-2-12,Edge]

| 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 | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.18 | Horz(CT) | 0.01 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 87 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** All bearings 18-6-10.
(lb) - Max Horz 1=210(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 15, 16, 17, 18 except 13=-124(LC 9), 12=-124(LC 9), 11=-122(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 10, 14, 15, 16, 17, 18, 13, 12, 11

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

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 10, 15, 16, 17, 18 except (jt=lb) 13=124, 12=124, 11=122.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | LAY3 | GABLE | 1 | 1 | I38965519 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:40 2019 Page 1

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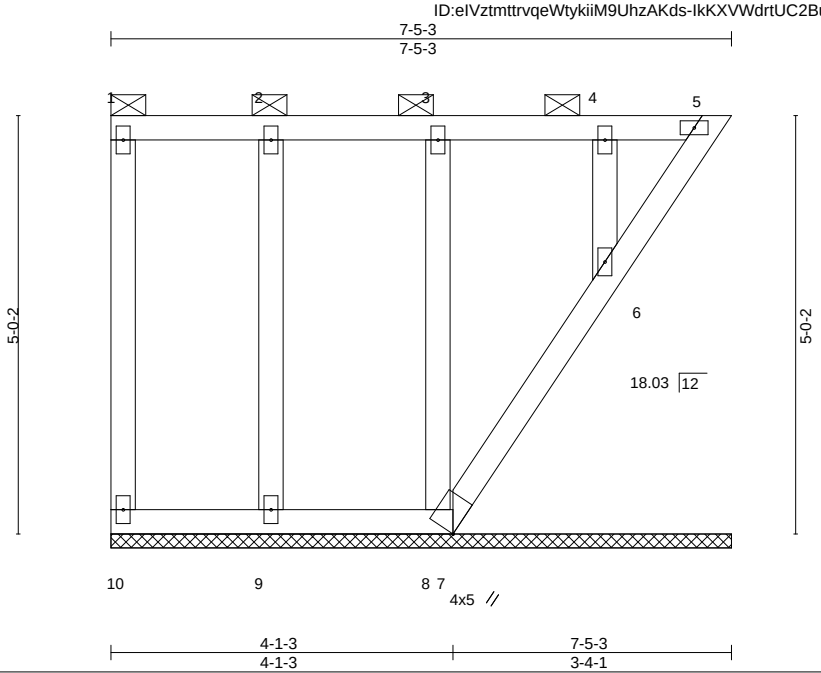


Plate Offsets (X,Y)-- [7:0-1-7,0-1-0], [8:0-1-0,0-1-7]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.14 | Vert(LL) | 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 | 0.06 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 37 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | 2-0-0 oc purlins: 1-5, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 5-6. |

**REACTIONS.** All bearings 7-5-3.

(lb) - Max Horz 10=-134(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 10, 5, 9, 8, 6 except 7=-120(LC 6)

Max Grav All reactions 250 lb or less at joint(s) 10, 5, 7, 9, 8, 6

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

**NOTES-**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 5, 9, 8, 6 except (jt=lb) 7=120.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | LAY4 | Lay-In Gable | 1 | 1 | I38965520 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:41 2019 Page 1
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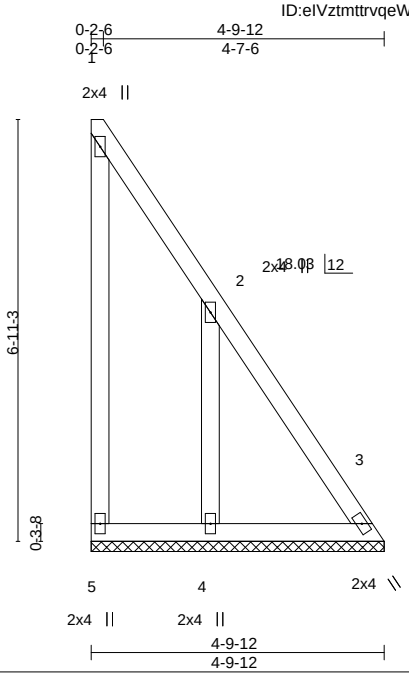


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.31 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 26 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 4-9-12 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (lb/size) 5=50/4-9-12, 3=94/4-9-12, 4=252/4-9-12
Max Horz 5=-260(LC 4)
Max Uplift 5=-138(LC 6), 3=-125(LC 7), 4=-302(LC 9)
Max Grav 5=131(LC 5), 3=256(LC 4), 4=341(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-314/249
WEBS 2-4=-285/336

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=138, 3=125, 4=302.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | LAY5 | Lay-In Gable | 1 | 1 | I38965521 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:41 2019 Page 1
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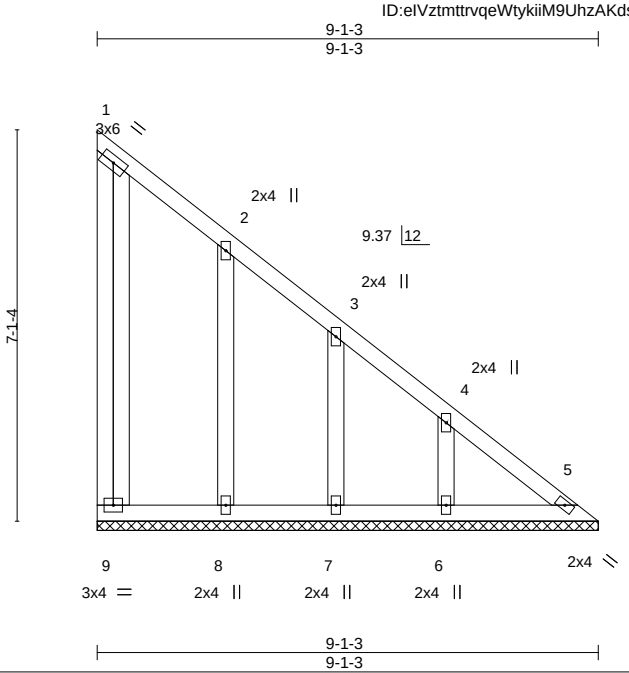


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.10 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 48 lb | FT = 10% |

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

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

**REACTIONS.** All bearings 9-1-3.
(lb) - Max Horz 9=-261(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 9, 5, 8, 7 except 6=-105(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 9, 5, 8, 7, 6

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

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 5, 8, 7 except (jt=lb) 6=105.
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.



October 18,2019




MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | R1 | Roof Special Girder | 1 | 2 | I38965522 |

Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871 — 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:42 2019 Page 1

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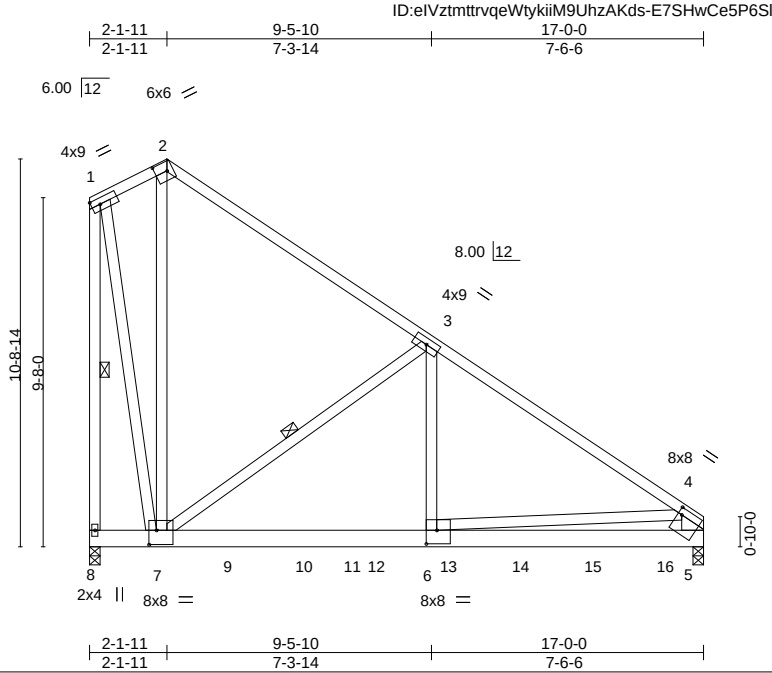


Plate Offsets (X,Y)-- [2:0-3-15,0-3-0], [4:0-1-4,0-2-4], [5:0-3-0,0-2-0], [6:0-3-8,0-4-8], [7:0-2-8,0-4-12]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.64 | Vert(LL) | -0.11 | 6-7 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.53 | Vert(CT) | -0.19 | 6-7 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.49 | Horz(CT) | 0.01 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | Wind(LL) | 0.04 | 6-7 | >999 | 240 | Weight: 241 lb | FT = 10% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x6 SP 2400F 2.0E |
| WEBS | 2x4 SPF No.2 *Except* |
| | 4-5: 2x8 SP DSS |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 5-5-5 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 1 Row at midpt 3-7, 1-8 |

**REACTIONS.** (lb/size) 8=3533/0-3-8, 5=3905/0-3-8
Max Horz 8=-382(LC 6)
Max Uplift 8=-82(LC 9)

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

| | |
|---|---|
| TOP CHORD | 1-2=-862/128, 2-3=-1036/85, 3-4=-4086/0, 1-8=-3968/107, 4-5=-2553/0 |
| BOT CHORD | 7-8=-217/306, 6-7=0/3297, 5-6=0/1789 |
| WEBS | 2-7=-158/674, 3-7=-3200/0, 3-6=0/3051, 1-7=-43/3659, 4-6=0/1514 |

**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, 2x8 - 2 rows staggered at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 787 lb down and 206 lb up at 1-11-4, 824 lb down and 169 lb up at 3-11-4, 745 lb down at 5-11-4, 745 lb down at 7-11-4, 745 lb down at 9-11-4, 745 lb down at 11-11-4, and 745 lb down at 13-11-4, and 737 lb down and 93 lb up at 15-11-4 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



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Continued on page 2



MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-2=-70, 2-4=-70, 5-8=-20

Concentrated Loads (lb)

Vert: 7=-741(F) 9=-747(F) 10=-745(F) 12=-745(F) 13=-745(F) 14=-745(F) 15=-745(F) 16=-737(F)




MiTek

16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | V1 | Valley | 1 | 1 | I38965523 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:43 2019 Page 1
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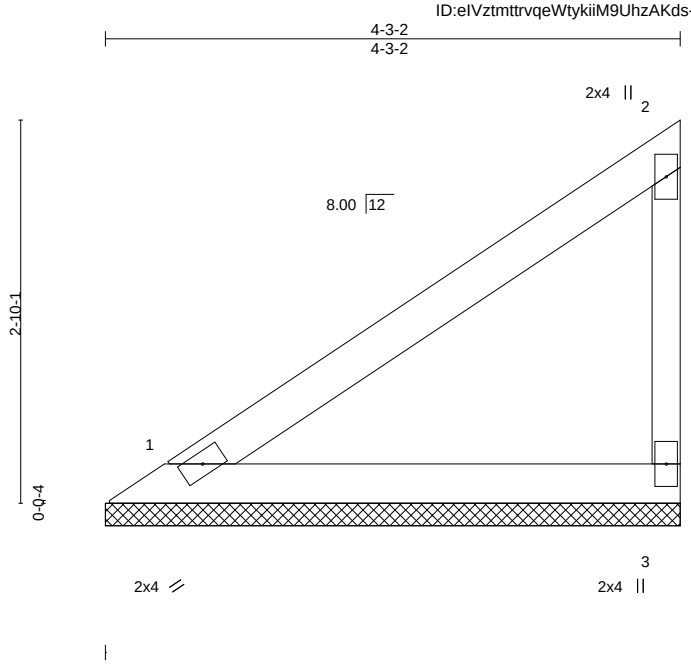


Scale = 1:17.1

| 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) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.13 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 12 lb | FT = 10% |

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

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

**REACTIONS.** (lb/size) 1=165/4-3-2, 3=165/4-3-2
Max Horz 1=98(LC 5)
Max Uplift 1=-14(LC 8), 3=-48(LC 8)
Max Grav 1=165(LC 1), 3=178(LC 15)

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

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



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| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | V2 | Valley | 1 | 1 | I38965524 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:43 2019 Page 1
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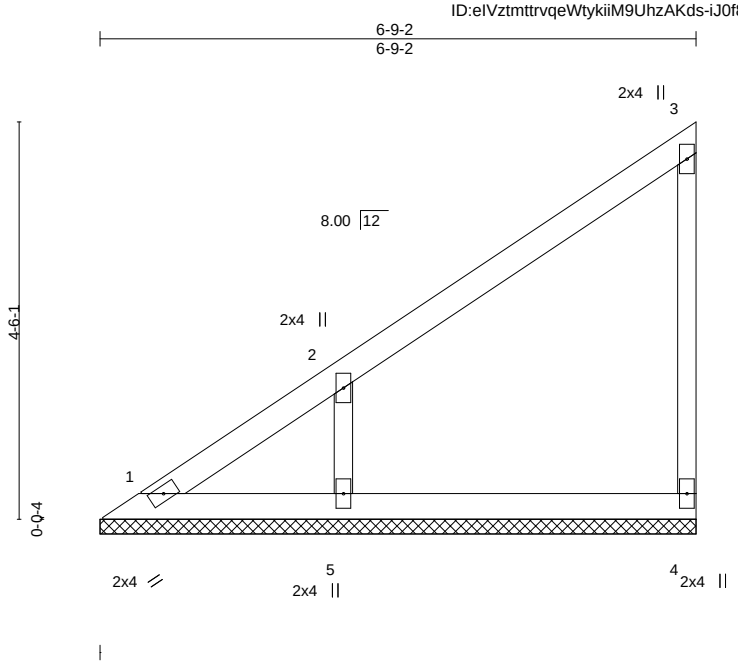


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.22 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 20 lb | FT = 10% |

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

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

**REACTIONS.** (lb/size) 1=46/6-9-2, 4=142/6-9-2, 5=367/6-9-2
Max Horz 1=164(LC 5)
Max Uplift 1=-23(LC 4), 4=-38(LC 5), 5=-142(LC 8)
Max Grav 1=86(LC 16), 4=158(LC 15), 5=381(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-299/191

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



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| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | V3 | Valley | 1 | 1 | I38965525 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:44 2019 Page 1
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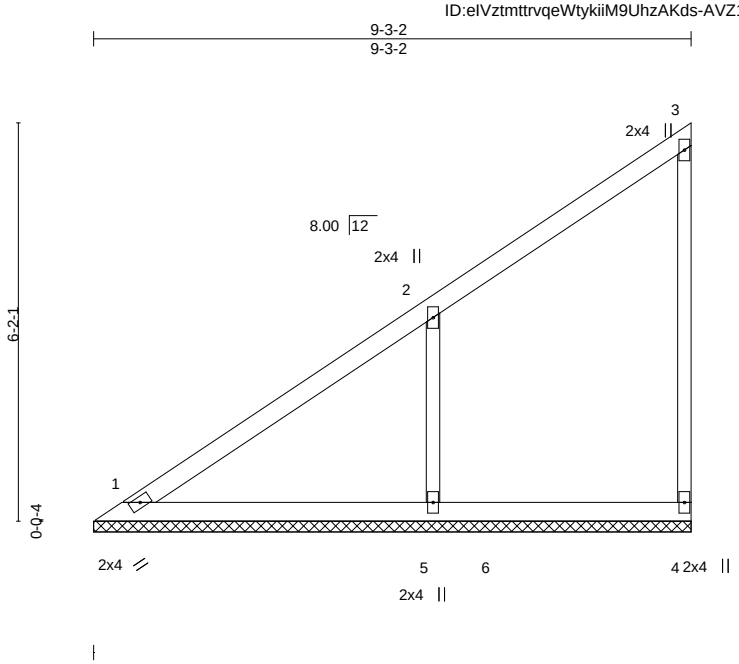




| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.30 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.18 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.10 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | | | Weight: 29 lb | FT = 10% |

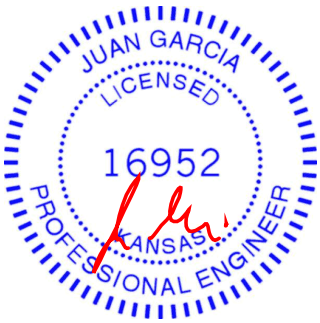
**LUMBER-**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

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

**REACTIONS.** (lb/size) 1=171/9-3-2, 4=122/9-3-2, 5=488/9-3-2
Max Horz 1=230(LC 5)
Max Uplift 4=-45(LC 5), 5=-189(LC 8)
Max Grav 1=225(LC 16), 4=186(LC 15), 5=608(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-393/232

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=189.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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16023 Swingley Ridge Rd
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| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | V4 | Valley | 1 | 1 | I38965526 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:45 2019 Page 1
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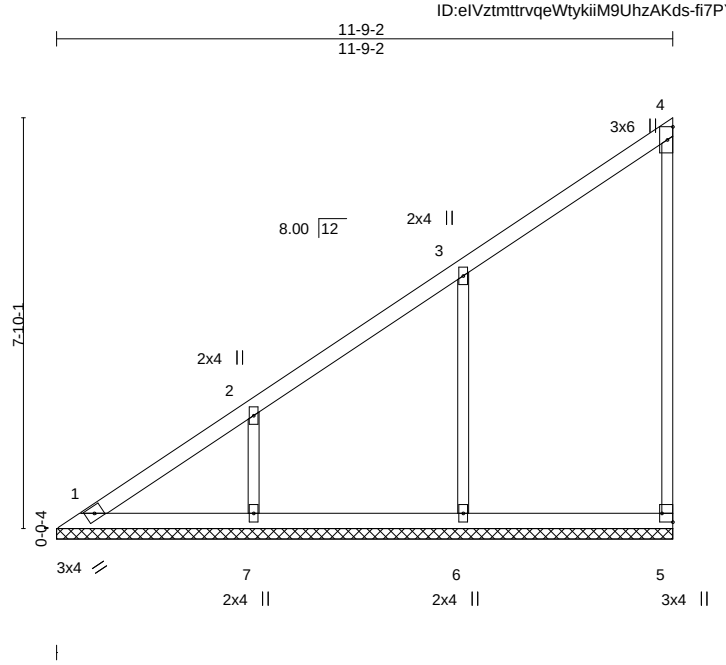



Plate Offsets (X,Y)-- [5:Edge,0-2-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.50 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.15 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.19 | Horz(CT) | -0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 40 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** All bearings 11-9-2.
(lb) - Max Horz 1=297(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 6=-154(LC 8), 7=-138(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=512(LC 15), 7=423(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-264/180
WEBS 3-6=-331/186, 2-7=-283/185

**NOTES-**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 6=154, 7=138.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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16023 Swingley Ridge Rd
Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | V5 | Valley | 1 | 1 | I38965527 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS 66871 8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 10:31:45 2019 Page 1
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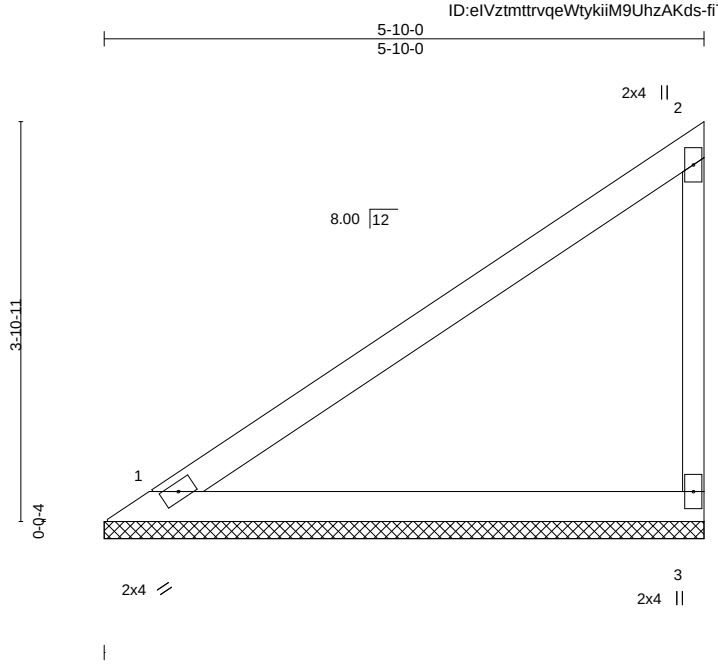


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.54 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.29 | 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: 17 lb | FT = 10% |

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

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

**REACTIONS.** (lb/size) 1=236/5-10-0, 3=236/5-10-0
Max Horz 1=139(LC 5)
Max Uplift 1=-20(LC 8), 3=-68(LC 8)
Max Grav 1=236(LC 1), 3=254(LC 15)

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

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



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Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | V6 | Valley | 1 | 1 | I38965528 |
| | | | | | Job Reference (optional) |

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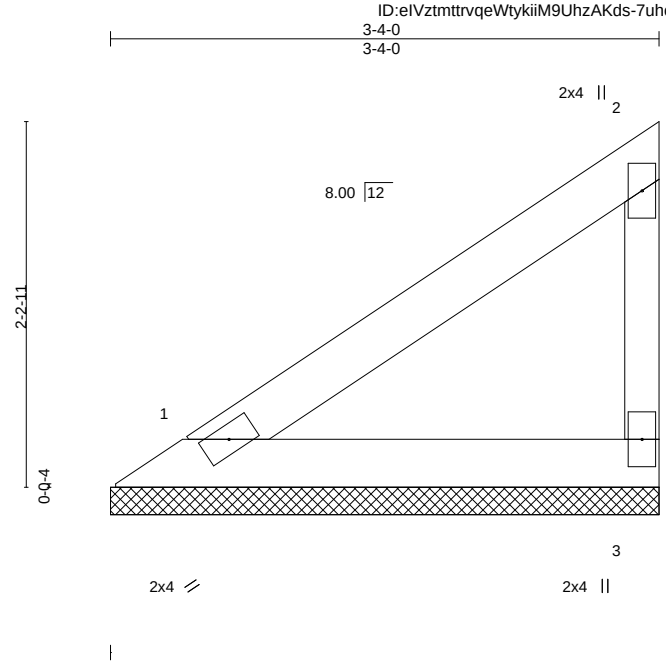


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.13 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 9 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** (lb/size) 1=124/3-4-0, 3=124/3-4-0
Max Horz 1=73(LC 5)
Max Uplift 1=-10(LC 8), 3=-36(LC 8)
Max Grav 1=124(LC 1), 3=133(LC 15)

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

**NOTES-**

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



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Chesterfield, MO 63017

| Job | Truss | Truss Type | Qty | Ply | Lot 62 MN |
|---|---|---|---|---|---|
| 400279 | V7 | Valley | 1 | 1 | I38965529 |
| | | | | | Job Reference (optional) |

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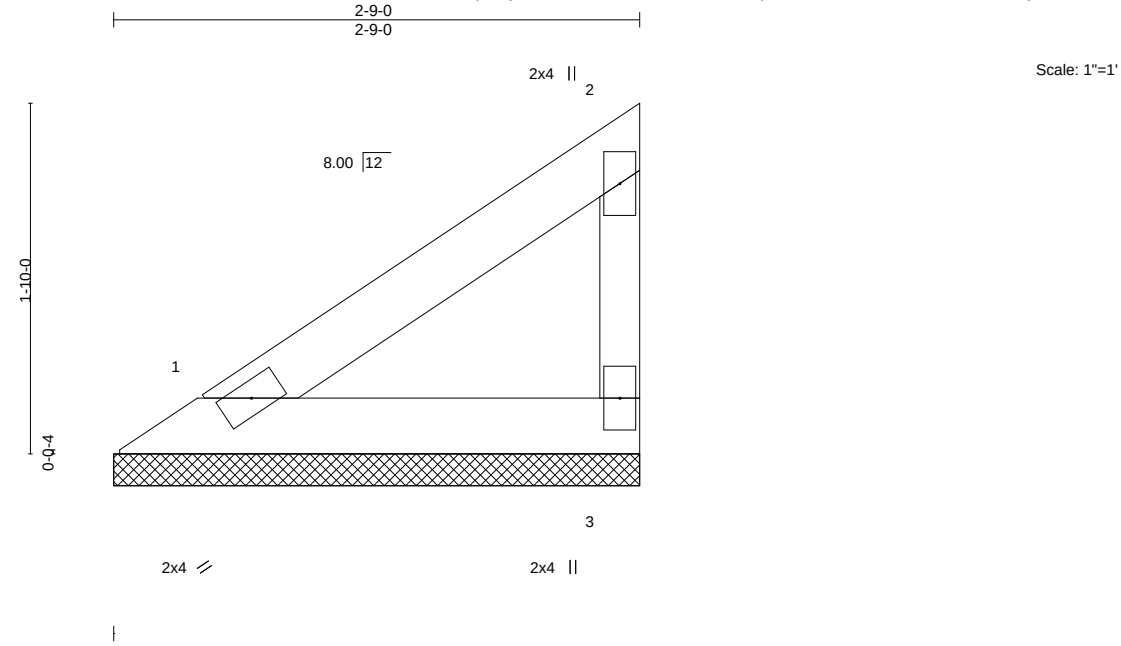



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 25.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 7 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 2-9-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (lb/size) 1=97/2-9-0, 3=97/2-9-0
Max Horz 1=57(LC 5)
Max Uplift 1=-8(LC 8), 3=-28(LC 8)
Max Grav 1=97(LC 1), 3=105(LC 15)

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

**NOTES-**

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



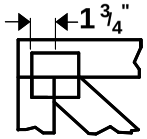
October 18,2019



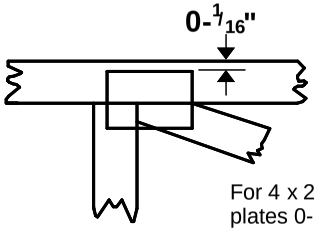

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

# Symbols

## PLATE LOCATION AND ORIENTATION




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




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

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

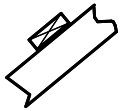
*** Plate location details available in MiTek 20/20 software or upon request.**

## PLATE SIZE

4 x 4

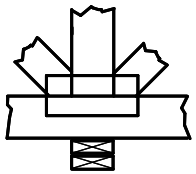
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

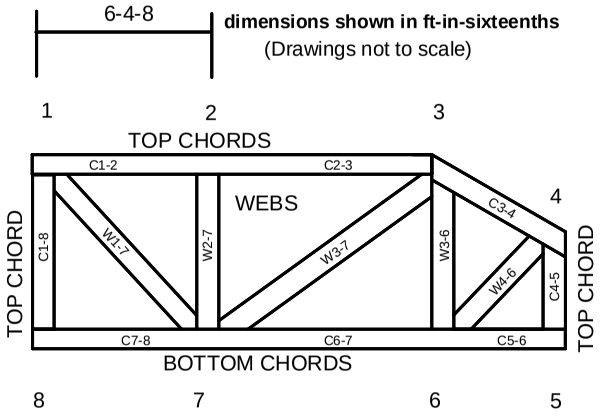


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

**Industry Standards:**

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System




**JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.**

**CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.**

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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



MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

# 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.