



RE: Sunflower Modern Prairie 3 Car -

**Site Information:**

Project Customer: Clayton Properties Project Name: Sunflower Modern Prairie 3 Car

Lot/Block: Subdivision:

Model: Sunflower Modern Prairie 3 Car

Address:

City: State:

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

Design Code: IRC2018/TPI2014

Wind Code: ASCE 7-16

Wind Speed: 115 mph

Roof Load: 45.0 psf

Mean Roof Height (feet): 35

Design Program: MiTek 20/20 8.6

Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Floor Load: N/A psf

Exposure Category: C

**MiTek, Inc.**

16023 Swingley Ridge Rd.

Chesterfield, MO 63017

314.434.1200

| No. | Seal#     | Truss Name | Date    | No. | Seal#     | Truss Name | Date    |
|-----|-----------|------------|---------|-----|-----------|------------|---------|
| 1   | I74482535 | A01        | 6/26/25 | 35  | I74482569 | HG5        | 6/26/25 |
| 2   | I74482536 | A02        | 6/26/25 | 36  | I74482570 | J01        | 6/26/25 |
| 3   | I74482537 | A03        | 6/26/25 | 37  | I74482571 | J02        | 6/26/25 |
| 4   | I74482538 | A04        | 6/26/25 | 38  | I74482572 | J03        | 6/26/25 |
| 5   | I74482539 | A05        | 6/26/25 | 39  | I74482573 | J04        | 6/26/25 |
| 6   | I74482540 | A06        | 6/26/25 | 40  | I74482574 | J05        | 6/26/25 |
| 7   | I74482541 | A07        | 6/26/25 | 41  | I74482575 | J06        | 6/26/25 |
| 8   | I74482542 | A08        | 6/26/25 | 42  | I74482576 | J07        | 6/26/25 |
| 9   | I74482543 | A09        | 6/26/25 | 43  | I74482577 | J08        | 6/26/25 |
| 10  | I74482544 | B01        | 6/26/25 | 44  | I74482578 | J10        | 6/26/25 |
| 11  | I74482545 | B02        | 6/26/25 | 45  | I74482579 | J11        | 6/26/25 |
| 12  | I74482546 | B03        | 6/26/25 | 46  | I74482580 | J13        | 6/26/25 |
| 13  | I74482547 | B04        | 6/26/25 | 47  | I74482581 | J14        | 6/26/25 |
| 14  | I74482548 | B05        | 6/26/25 | 48  | I74482582 | J15        | 6/26/25 |
| 15  | I74482549 | B06        | 6/26/25 | 49  | I74482583 | J16        | 6/26/25 |
| 16  | I74482550 | B07        | 6/26/25 | 50  | I74482584 | J18        | 6/26/25 |
| 17  | I74482551 | B08        | 6/26/25 | 51  | I74482585 | J19        | 6/26/25 |
| 18  | I74482552 | B09        | 6/26/25 | 52  | I74482586 | M01        | 6/26/25 |
| 19  | I74482553 | B10        | 6/26/25 | 53  | I74482587 | M02        | 6/26/25 |
| 20  | I74482554 | B11        | 6/26/25 |     |           |            |         |
| 21  | I74482555 | B12        | 6/26/25 |     |           |            |         |
| 22  | I74482556 | B13        | 6/26/25 |     |           |            |         |
| 23  | I74482557 | C01        | 6/26/25 |     |           |            |         |
| 24  | I74482558 | C02        | 6/26/25 |     |           |            |         |
| 25  | I74482559 | C03        | 6/26/25 |     |           |            |         |
| 26  | I74482560 | C04        | 6/26/25 |     |           |            |         |
| 27  | I74482561 | CJ1        | 6/26/25 |     |           |            |         |
| 28  | I74482562 | CJ02       | 6/26/25 |     |           |            |         |
| 29  | I74482563 | CJ03       | 6/26/25 |     |           |            |         |
| 30  | I74482564 | CJ04       | 6/26/25 |     |           |            |         |
| 31  | I74482565 | HG1        | 6/26/25 |     |           |            |         |
| 32  | I74482566 | HG2        | 6/26/25 |     |           |            |         |
| 33  | I74482567 | HG3        | 6/26/25 |     |           |            |         |
| 34  | I74482568 | HG4        | 6/26/25 |     |           |            |         |

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

Truss Design Engineer's Name: Lu, Jie

My license renewal date for the state of Missouri is December 31, 2026.

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



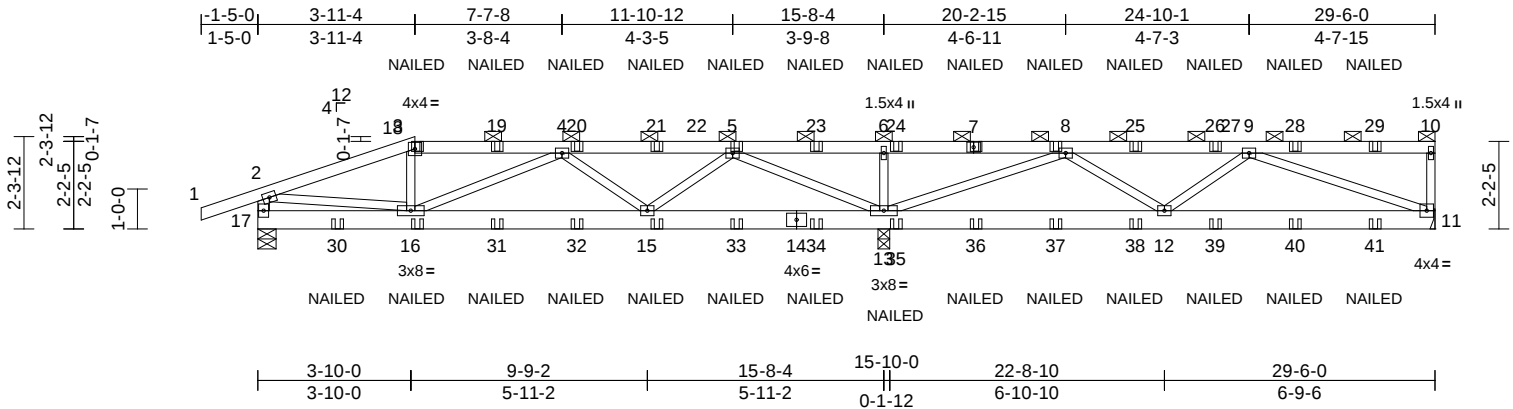
|                  |       |                 |     |     |                          |
|------------------|-------|-----------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type      | Qty | Ply |                          |
| Sunflower Modern | A01   | Half Hip Girder | 1   | 2   | Job Reference (optional) |
|                  |       |                 |     |     | I74482535                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:51

Page: 1

ID:4\_M9To87?Q5qmdKZ76eMvozeBhO-RfC?Psb70Hq3NSgPqnL8w3uITxbGKWrcD0i7J4zJC?i



Scale = 1:57.7

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.45 | Vert(LL) | -0.02 | 15-16 | >999   | 240 | MT20           | 197/144  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.19 | Vert(CT) | -0.05 | 15-16 | >999   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.26 | Horz(CT) | 0.01  | 11    | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 258 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\* 17-2:2x4 SP No.2

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

**REACTIONS** (size)  
11= Mechanical, 13=0-3-8, 17=0-5-8  
Max Horiz 17=94 (LC 9)  
Max Uplift 11=-148 (LC 9), 13=-482 (LC 8), 17=-275 (LC 8)  
Max Grav 11=623 (LC 26), 13=2055 (LC 1), 17=906 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/35, 2-3=-1234/324, 3-4=-1125/331, 4-5=-960/243, 5-6=-287/1072, 6-8=-287/1072, 8-9=-871/160, 9-10=-56/50, 10-11=-172/98, 2-17=-796/345  
BOT CHORD 16-17=-205/214, 15-16=-418/1330, 13-15=-169/444, 12-13=-208/546, 11-12=-317/944  
WEBS 2-16=-215/930, 3-16=0/207, 6-13=-440/214, 4-15=-485/259, 4-16=-272/124, 5-15=-79/678, 5-13=-1681/474, 8-13=-1727/481, 9-11=-965/298, 9-12=-101/185, 8-12=0/519

**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, 2x3 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.

- 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 3-11-4, Exterior(2R) 3-11-4 to 11-0-2, Interior (1) 11-0-2 to 29-4-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 17 SPF No.2 crushing capacity of 425 psi, Joint 13 SPF No.2 crushing capacity of 425 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 148 lb uplift at joint 11.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17 and 13. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-70, 2-3=-70, 3-10=-70, 11-17=-20  
Concentrated Loads (lb)  
Vert: 3=-38 (B), 7=-38 (B), 16=-18 (B), 15=-18 (B), 5=-38 (B), 8=-38 (B), 19=-38 (B), 20=-38 (B), 21=-38 (B), 23=-38 (B), 24=-38 (B), 25=-38 (B), 26=-38 (B), 28=-38 (B), 29=-38 (B), 30=-117 (B), 31=-18 (B), 32=-18 (B), 33=-18 (B), 34=-18 (B), 35=-18 (B), 36=-18 (B), 37=-18 (B), 38=-18 (B), 39=-18 (B), 40=-18 (B), 41=-18 (B)



June 26, 2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

**RELEASE FOR CONSTRUCTION**  
**Mitek**  
**AS NOTED FOR PLAN REVIEW**  
**DEVELOPMENT SERVICES**  
16023 Swingley Ridge Rd.  
Greer, SC 29615  
314.434.1200 / Mitek-US.com

**09/22/2025**

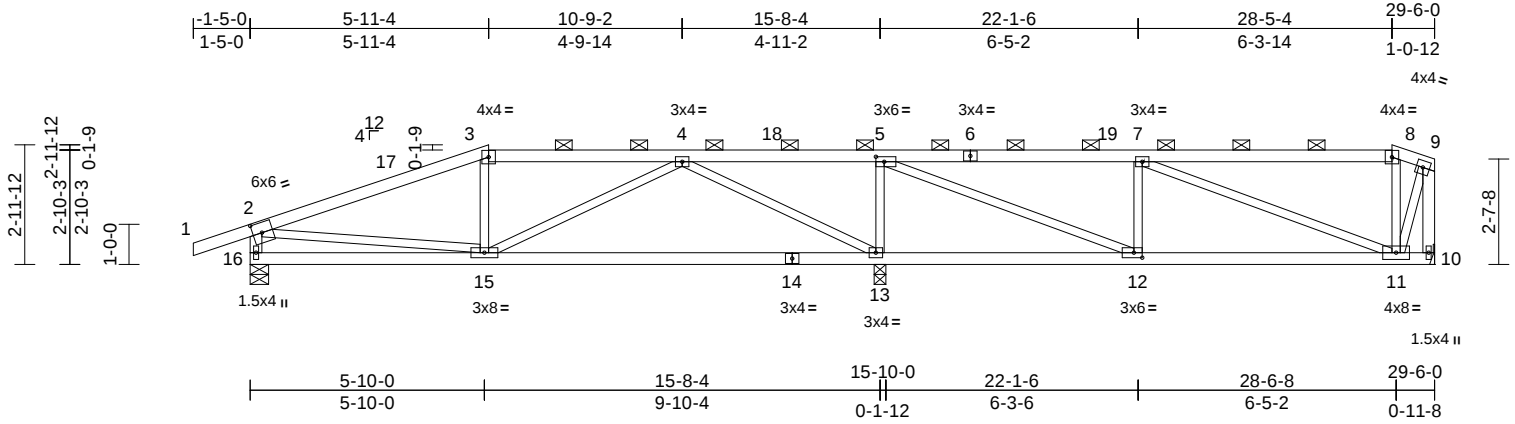
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply | Job Reference (optional) |
| Sunflower Modern | A02   | Hip        | 1   | 1   | I74482536                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:52

Page: 1

ID:53Ttk2zm\_J0Bw4Xd6Oslg8zeBgK-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f



Scale = 1:57.4

Plate Offsets (X, Y): [2:0-2-11,0-3-0], [5:0-2-8,0-1-8], [12:0-2-8,0-1-8]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.94 | Vert(LL) | -0.20 | 13-15 | >954   | 240 | MT20           | 197/144  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.77 | Vert(CT) | -0.39 | 13-15 | >473   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.80 | Horz(CT) | 0.01  | 10    | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 128 lb | FT = 20% |

#### LUMBER

|           |                                              |
|-----------|----------------------------------------------|
| TOP CHORD | 2x4 SP No.2                                  |
| BOT CHORD | 2x4 SP No.2 *Except* 14-10:2x4 SP 1650F 1.5E |
| WEBS      | 2x3 SPF No.2 *Except* 16-2,10-9:2x4 SP No.2  |

#### BRACING

|           |                                                                                                                                  |
|-----------|----------------------------------------------------------------------------------------------------------------------------------|
| TOP CHORD | Structural wood sheathing directly applied or 5-6-11 oc purlins, except end verticals, and 2-0-0 oc purlins (5-10-10 max.): 3-8. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 12-13.                                            |

#### REACTIONS

|            |                                                |
|------------|------------------------------------------------|
| (size)     | 10= Mechanical, 13=0-3-8, 16=0-5-8             |
| Max Horiz  | 16=117 (LC 9)                                  |
| Max Uplift | 10=113 (LC 9), 13=326 (LC 8), 16=206 (LC 8)    |
| Max Grav   | 10=501 (LC 26), 13=1534 (LC 1), 16=709 (LC 25) |

#### FORCES

|                                            |                                                                                                                                                     |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| (lb) - Maximum Compression/Maximum Tension |                                                                                                                                                     |
| TOP CHORD                                  | 1-2=0/35, 2-3=-905/236, 3-4=-800/256, 4-5=-135/434, 5-7=-622/192, 7-8=-219/92, 8-9=-195/78, 2-16=-668/323, 9-10=-563/90                             |
| BOT CHORD                                  | 15-16=-300/280, 13-15=-207/471, 12-13=-434/163, 11-12=-233/622, 10-11=-44/51                                                                        |
| WEBS                                       | 3-15=-80/125, 8-11=-263/197, 2-15=-63/569, 9-11=-144/605, 5-13=-871/307, 4-15=-56/387, 4-13=-1019/356, 7-11=-437/152, 7-12=-316/187, 5-12=-334/1116 |

#### NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 5-11-4, Exterior(2R) 5-11-4 to 13-0-2, Interior (1) 13-0-2 to 28-5-4, Exterior(2E) 28-5-4 to 29-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 16 SP No.2 crushing capacity of 565 psi, Joint 13 SP 1650F 1.5E crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 10.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 13. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26,2025

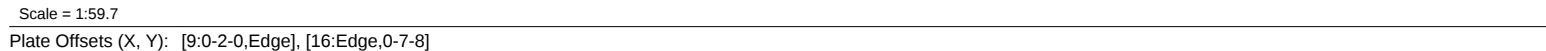
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

**Mitek**  
RELEASE FOR CONSTRUCTION  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Greer, SC 29615  
314.434.1200 / MiTek-US.com

**09/22/2025**

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:52 Page: 1  
ID:Srs1UCfvoW4EehpOO9sRxxzeBfS-RfC?PsB70Hg3NSgPqnL8w3uLTxbGKWrcDoi7J4zJC?f



|                                                                     |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LUMBER</b>                                                       |                                                                                                                                                                                   | 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)                                                                                                                                                                                                                                                                                                                       |
| TOP CHORD                                                           | 2x4 SP No.2 *Except* 3-5:2x4 SP 1650F 1.5E                                                                                                                                        | Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)                                                                                                                                                                                                                                                                     |
| BOT CHORD                                                           | 2x4 SP No.2                                                                                                                                                                       | exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0,                                                                                                                                                                                                                                                                                                                   |
| WEBS                                                                | 2x3 SPF No.2 *Except* 16-2,11-10:2x4 SP No.2                                                                                                                                      | Interior (1) 3-7-0 to 7-11-4, Exterior(2R) 7-11-4 to 15-0-2, Interior (1) 15-0-2 to 25-5-4, Exterior(2E) 25-5-4 to 27-2-12, Interior (1) 27-2-12 to 28-2-12, Exterior(2E) 28-2-12 to 29-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 |
| <b>BRACING</b>                                                      |                                                                                                                                                                                   | 3) Provide adequate drainage to prevent water ponding.                                                                                                                                                                                                                                                                                                                |
| TOP CHORD                                                           | Structural wood sheathing directly applied or 4-7-5 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-7, 8-9.                                                | 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.                                                                                                                                                                                                                                                        |
| BOT CHORD                                                           | Rigid ceiling directly applied or 6-0-0 oc bracing.                                                                                                                               | 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.                                                                                                                                                                 |
| <b>REACTIONS</b>                                                    | (size) 11= Mechanical, 13=0-3-8, 16=0-5-8                                                                                                                                         | 6) Bearings are assumed to be: Joint 16 SP No.2 crushing capacity of 565 psi, Joint 13 SP No.2 crushing capacity of 565 psi.                                                                                                                                                                                                                                          |
|                                                                     | Max Horiz 16=107 (LC 9)                                                                                                                                                           | 7) Refer to girder(s) for truss to truss connections.                                                                                                                                                                                                                                                                                                                 |
|                                                                     | Max Uplift 11=-122 (LC 9), 13=-292 (LC 8), 16=-217 (LC 8)                                                                                                                         | 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 11.                                                                                                                                                                                                                                             |
|                                                                     | Max Grav 11=545 (LC 1), 13=1441 (LC 1), 16=755 (LC 25)                                                                                                                            | 9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 13. This connection is for uplift only and does not consider lateral forces.                                                                                                                                                                   |
| <b>FORCES</b>                                                       |                                                                                                                                                                                   | 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.                                                                                                                                                                                                            |
| TOP CHORD                                                           | (lb) - Maximum Compression/Maximum Tension<br>1-2=0/35, 2-3=-888/253, 3-4=-767/283, 4-6=-15/162, 6-7=-499/175, 7-8=-531/163, 8-9=-55/78, 9-10=-63/77, 2-16=-680/350, 10-11=-81/59 | 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.                                                                                                                                                                                                                                      |
| BOT CHORD                                                           | 15-16=-416/484, 13-15=-162/86, 12-13=-222/402, 11-12=-138/370                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                       |
| WEBS                                                                | 3-15=-253/189, 7-12=-94/90, 8-12=-29/256, 8-11=-588/154, 2-15=0/338, 4-13=-889/343, 4-15=-283/990, 6-13=-667/250, 6-12=0/2110                                                     |                                                                                                                                                                                                                                                                                                                                                                       |
| <b>NOTES</b>                                                        |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                       |
| 1) Unbalanced roof live loads have been considered for this design. |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                       |



STATE OF MISSOURI

JIE LU

NUMBER  
PE-029327

PROFESSIONAL ENGINEER

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria**, and **DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcscomponents.com](http://www.sbcscomponents.com))

**RELEASE FOR CONSTRUCTION**  
**AS NOTED FOR PLAN REVIEW**  
**DEVELOPMENT SERVICES**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
**LIFE'S SUMMIT, MISSOURI**  
314 434 1200 [Mitek-LLS.com](http://Mitek-LLS.com)

09/22/2025

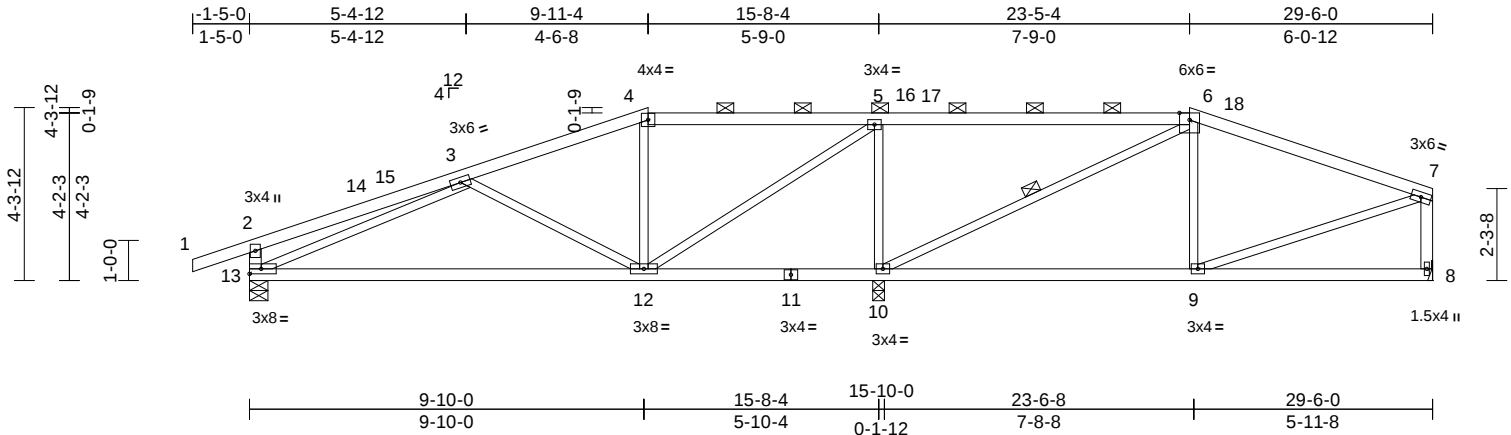
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply | Job Reference (optional) |
| Sunflower Modern | A04   | Hip        | 1   | 1   | I74482538                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:52

Page: 1

ID:EkzC0?nEu5n2l\_QGKB1ECZzeBe?RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwCDoi7J4zJC?f



Scale = 1:57.4

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.69 | Vert(LL) | -0.24 | 12-13 | >790   | 240 | MT20           | 197/144  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.87 | Vert(CT) | -0.48 | 12-13 | >389   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.53 | Horz(CT) | 0.02  | 8     | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 130 lb | FT = 20% |

#### LUMBER

|           |                                         |
|-----------|-----------------------------------------|
| TOP CHORD | 2x4 SP No.2 *Except* 4-6:2x4 SP 1650F   |
|           | 1.5E                                    |
| BOT CHORD | 2x4 SP No.2                             |
| WEBS      | 2x3 SPF No.2 *Except* 13-2:2x4 SP 2400F |
|           | 2.0E, 8-7:2x4 SP No.2                   |

#### BRACING

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

#### REACTIONS

|            |                                               |
|------------|-----------------------------------------------|
| (size)     | 8= Mechanical, 10=0-3-8, 13=0-5-8             |
| Max Horiz  | 13=78 (LC 11)                                 |
| Max Uplift | 8=-109 (LC 9), 10=-325 (LC 8), 13=-196 (LC 8) |
| Max Grav   | 8=553 (LC 26), 10=1489 (LC 1), 13=731 (LC 25) |

#### FORCES

|                                            |                                                                                                                   |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| (lb) - Maximum Compression/Maximum Tension |                                                                                                                   |
| TOP CHORD                                  | 1-2=0/35, 2-3=-313/69, 3-4=-556/160, 4-5=-483/175, 5-6=-47/227, 6-7=-578/165, 2-13=-372/236, 7-8=-506/178         |
| BOT CHORD                                  | 12-13=-326/788, 10-12=-225/157, 9-10=-125/493, 8-9=-62/70                                                         |
| WEBS                                       | 4-12=-138/105, 6-9=0/209, 3-13=-607/238, 7-9=-64/457, 3-12=-351/265, 5-10=-1032/391, 5-12=-219/846, 6-10=-750/239 |

#### NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 9-11-4, Exterior(2R) 9-11-4 to 17-0-2, Interior (1) 17-0-2 to 23-5-4, Exterior(2E) 23-5-4 to 29-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 13 SP No.2 crushing capacity of 565 psi, Joint 10 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 8.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13 and 10. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcsccomponents.com](http://www.sbcsccomponents.com))

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

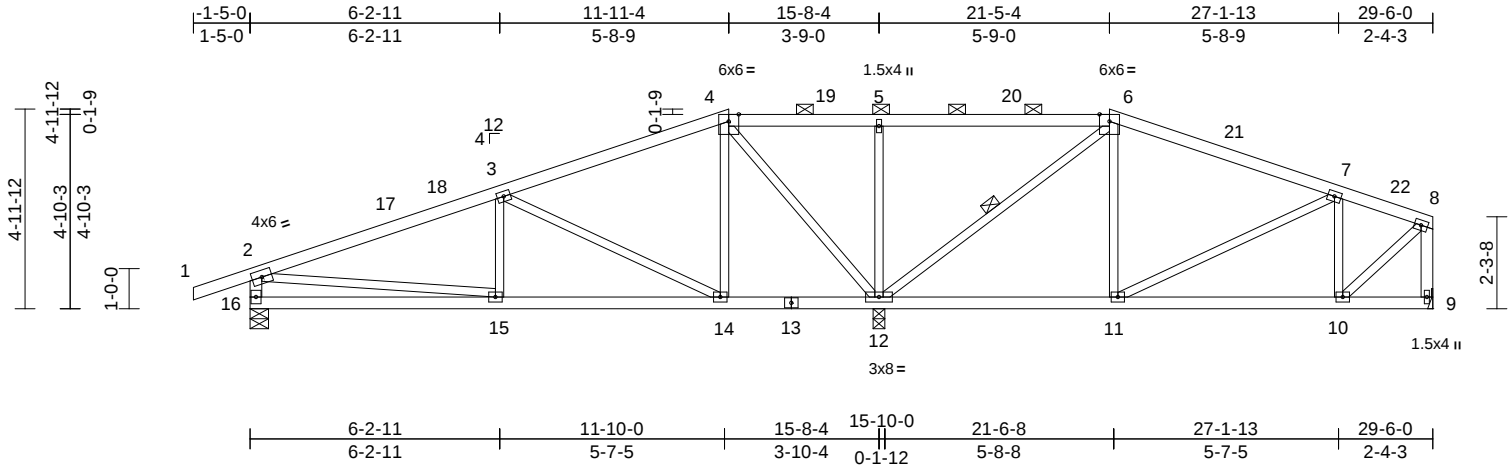
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply | 174482539                |
| Sunflower Modern | A05   | Hip        | 1   | 1   | Job Reference (optional) |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:53

Page: 1

ID:X90YIehHE7EPoVfgERtqlNzeBq-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCdoi7J4zJC?f



Scale = 1:57.5

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.60 | Vert(LL) | -0.04 | 15-16 | >999   | 240 | MT20           | 197/144  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.40 | Vert(CT) | -0.08 | 15-16 | >999   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.70 | Horz(CT) | 0.01  | 9     | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 137 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x3 SPF No.2 \*Except\* 16-2,9-8:2x4 SP 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 (10-0-0 max.): 4-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-0-0 oc bracing: 9-10.

WEBS 1 Row at midpt 6-12

**REACTIONS** (size) 9= Mechanical, 12=0-3-8, 16=0-5-8  
Max Horiz 16=70 (LC 12)  
Max Uplift 9=-105 (LC 9), 12=-327 (LC 8), 16=-188 (LC 8)  
Max Grav 9=516 (LC 26), 12=1611 (LC 1), 16=681 (LC 25)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/35, 2-3=-828/186, 3-4=-190/93, 4-5=-72/432, 5-6=-72/432, 6-7=-392/140, 7-8=-424/158, 2-16=-622/297, 8-9=-506/133  
BOT CHORD 15-16=-186/266, 14-15=-239/723, 12-14=-21/110, 11-12=-49/308, 10-11=-138/404, 9-10=-44/48  
WEBS 3-15=0/216, 3-14=-683/253, 4-14=-59/384, 6-12=-811/234, 6-11=0/282, 7-11=-165/120, 7-10=-289/161, 2-15=-54/511, 8-10=-150/553, 5-12=-385/205, 4-12=-815/242

#### NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 11-11-4, Exterior(2R) 11-11-4 to 19-0-2, Interior (1) 19-0-2 to 21-5-4, Exterior(2R) 21-5-4 to 28-6-2, Interior (1) 28-6-2 to 29-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: Joint 16 SP No.2 crushing capacity of 565 psi, Joint 12 SP No.2 crushing capacity of 565 psi.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 9.
- 10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 12. This connection is for uplift only and does not consider lateral forces.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

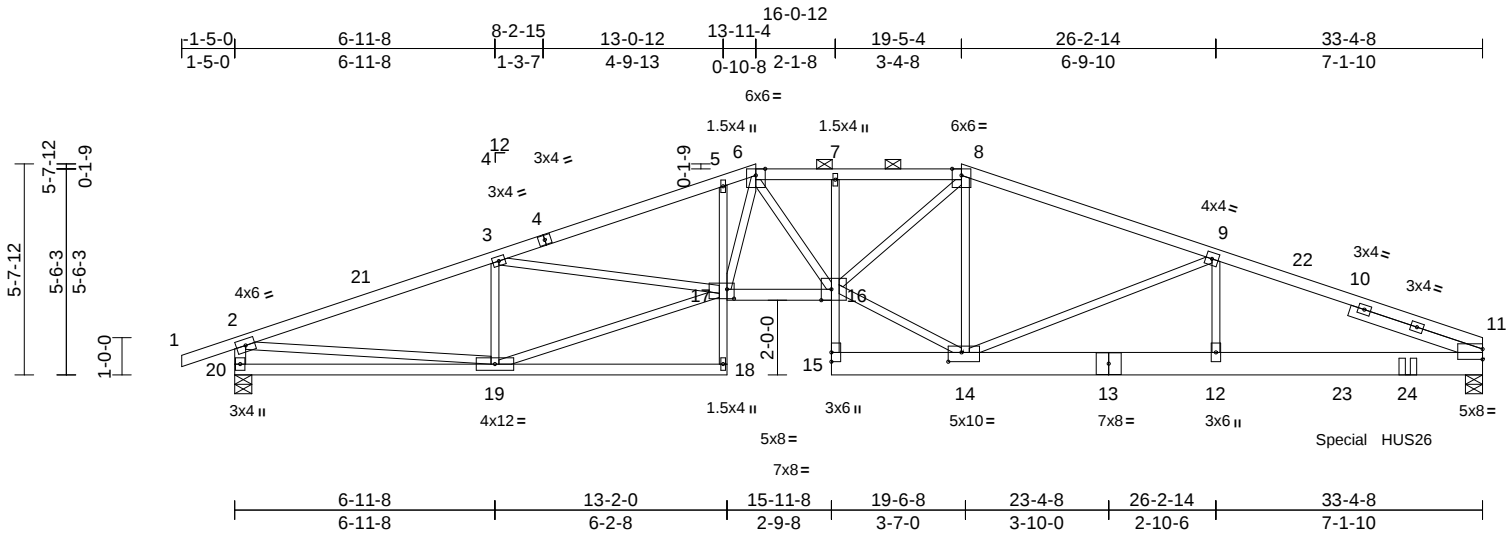
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply |                          |
| Sunflower Modern | A06   | Hip Girder | 1   | 2   | Job Reference (optional) |
|                  |       |            |     |     | I74482540                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:53

Page: 1

ID:MsQg8KANpQHkbfMarbCMPzeBcC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:61.6

Plate Offsets (X, Y): [11:Edge,0-3-5], [14:0-4-4,0-3-0], [16:0-3-4,Edge], [17:0-2-4,0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.78 | Vert(LL) | -0.23 | 16-17  | >999 | 240    | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.70 | Vert(CT) | -0.42 | 16-17  | >957 | 180    |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.67 | Horz(CT) | 0.15  | 11     | n/a  | n/a    |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |        |      |        | Weight: 363 lb | FT = 20% |

#### LUMBER

|           |                                                                                          |
|-----------|------------------------------------------------------------------------------------------|
| TOP CHORD | 2x4 SP No.2 *Except* 8-11:2x4 SP 1650F 1.5E                                              |
| BOT CHORD | 2x4 SP No.2 *Except* 18-5,7-15:2x3 SPF No.2, 15-13:2x8 SPF No.2, 13-11:2x8 SP 2400F 2.0E |
| WEBS      | 2x3 SPF No.2 *Except* 20-2:2x4 SP 2400F 2.0E                                             |
| SLIDER    | Right 2x4 SP 2400F 2.0E -- 3-8-13                                                        |

#### BRACING

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

#### REACTIONS

|            |                                |
|------------|--------------------------------|
| (size)     | 11=0-5-8, 20=0-5-8             |
| Max Horiz  | 20=88 (LC 17)                  |
| Max Uplift | 11=934 (LC 9), 20=423 (LC 8)   |
| Max Grav   | 11=3942 (LC 1), 20=1878 (LC 1) |

#### FORCES

|                                            |                                                                                                                                                                               |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (lb) - Maximum Compression/Maximum Tension |                                                                                                                                                                               |
| TOP CHORD                                  | 1-2=0/35, 2-3=-3622/953, 3-5=-5349/1426, 5-6=-5216/1469, 6-7=-5144/1413, 7-8=-5126/1410, 8-9=-3573/1012, 9-11=-5912/1534, 2-20=-1796/610                                      |
| BOT CHORD                                  | 19-20=-207/503, 18-19=-12/75, 17-18=0/108, 5-17=-36/230, 16-17=-1076/4783, 15-16=-55/175, 7-16=-343/152, 14-15=-22/78, 12-14=-1354/5443, 11-12=-1354/5443                     |
| WEBS                                       | 3-19=-1280/438, 17-19=-845/3457, 3-17=-371/1668, 6-17=-321/895, 6-16=-211/804, 14-16=-856/3726, 8-16=-600/2449, 8-14=-979/287, 9-14=-2350/687, 9-12=-260/1464, 2-19=-691/2874 |

#### NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-5-0 oc.  
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
- 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 13-11-4, Exterior(2E) 13-11-4 to 19-5-4, Exterior(2R) 19-5-4 to 26-2-14, Interior (1) 26-2-14 to 33-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 20 SP No.2 crushing capacity of 565 psi, Joint 11 SP 2400F 2.0E crushing capacity of 805 psi.
- Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11. This connection is for uplift only and does not consider lateral forces.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent at 31-4-8 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2038 lb down and 492 lb up at 29-7-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S)

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)



June 26,2025

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

**Mitek**  
RELEASE FOR CONSTRUCTION  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Greer, SC 29615  
314.434.1200 / Mitek-US.com

09/22/2025

|                  |       |            |                          |     |           |
|------------------|-------|------------|--------------------------|-----|-----------|
| Job              | Truss | Truss Type | Qty                      | Ply |           |
| Sunflower Modern | A06   | Hip Girder | 1                        | 2   | I74482540 |
|                  |       |            | Job Reference (optional) |     |           |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:53

ID:MsQg8KANpQHkbfilMarbCMpzeBcC-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 2

Vert: 1-2=-70, 2-6=-70, 6-8=-70, 8-11=-70,  
18-20=-20, 16-17=-20, 11-15=-20  
Concentrated Loads (lb)  
Vert: 23=-2038 (B), 24=-682 (B)

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbccomponents.com](http://www.sbccomponents.com))



**RELEASE FOR CONSTRUCTION**  
**AS NOTED FOR PLAN REVIEW**  
**DEVELOPMENT SERVICES**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
LEE'S SUMMIT, MISSOURI  
314.434.1200 / [MiTek-US.com](http://MiTek-US.com)

09/22/2025

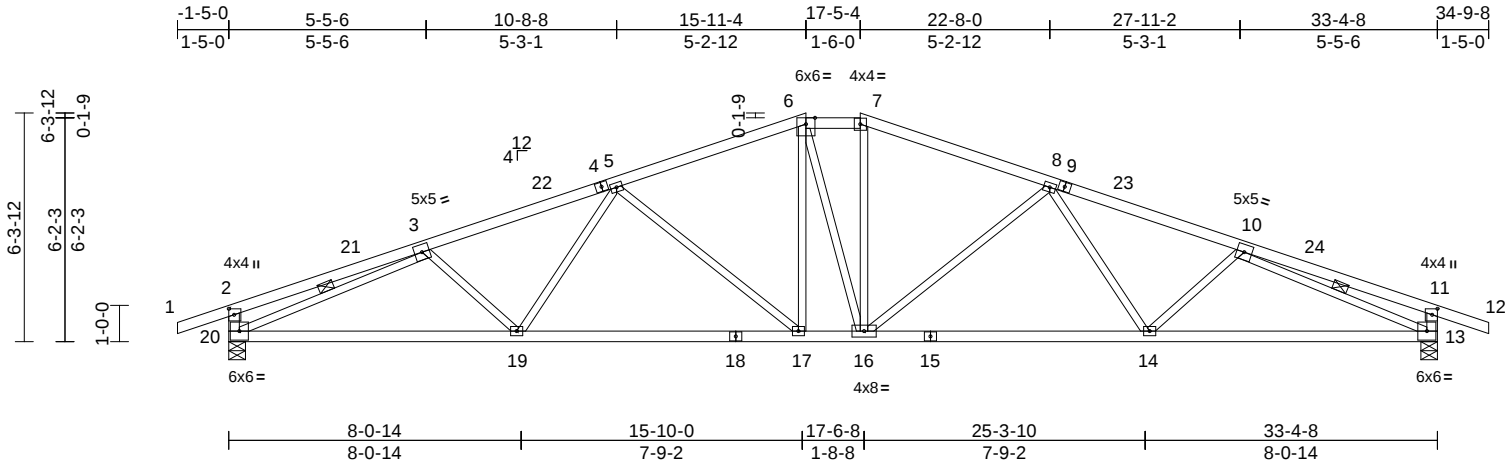
|                          |       |            |     |     |           |
|--------------------------|-------|------------|-----|-----|-----------|
| Job                      | Truss | Truss Type | Qty | Ply |           |
| Sunflower Modern         | A07   | Hip        | 1   | 1   | 174482541 |
| Job Reference (optional) |       |            |     |     |           |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:53

Page: 1

ID:BYroY?ISOj2Pom2wEJb\_EzeBba-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f



Scale = 1:63.6

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.74 | Vert(LL) | -0.20 | 17-19  | >999 | 240    | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.68 | Vert(CT) | -0.42 | 17-19  | >944 | 180    |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.87 | Horz(CT) | 0.13  | 13     | n/a  | n/a    |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |        |      |        | Weight: 155 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2 \*Except\* 1-4,9-12:2x4 SP 1650F 1.5E  
BOT CHORD 2x4 SP 1650F 1.5E  
WEBS 2x3 SPF No.2 \*Except\* 20-2,13-11:2x4 SP No.2

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-4 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 9-1-14 oc bracing.  
WEBS 1 Row at midpt 3-20, 10-13

#### REACTIONS

(size) 13=0-5-8, 20=0-5-8  
Max Horiz 20=81 (LC 12)  
Max Uplift 13=339 (LC 9), 20=339 (LC 8)  
Max Grav 13=1598 (LC 1), 20=1598 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/35, 2-3=-436/135, 3-5=-2802/693, 5-6=-2253/629, 6-7=-2086/635, 7-8=-2254/631, 8-10=-2801/700, 10-11=-437/136, 11-12=0/35, 2-20=-435/262, 11-13=-435/261  
BOT CHORD 19-20=-609/2617, 17-19=-539/2492, 16-17=-375/2084, 14-16=-508/2492, 13-14=-577/2617  
WEBS 6-17=-81/462, 6-16=-235/245, 7-16=-89/427, 3-20=-2512/608, 10-13=-2510/604, 3-19=-88/167, 5-19=-12/277, 5-17=-565/211, 8-16=-563/211, 8-14=-12/277, 10-14=-88/167

#### NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 15-11-4, Exterior(2E) 15-11-4 to 17-5-4, Exterior(2R) 17-5-4 to 24-6-2, Interior (1) 24-6-2 to 34-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SP 1650F 1.5E crushing capacity of 565 psi.
- 8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20 and 13. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

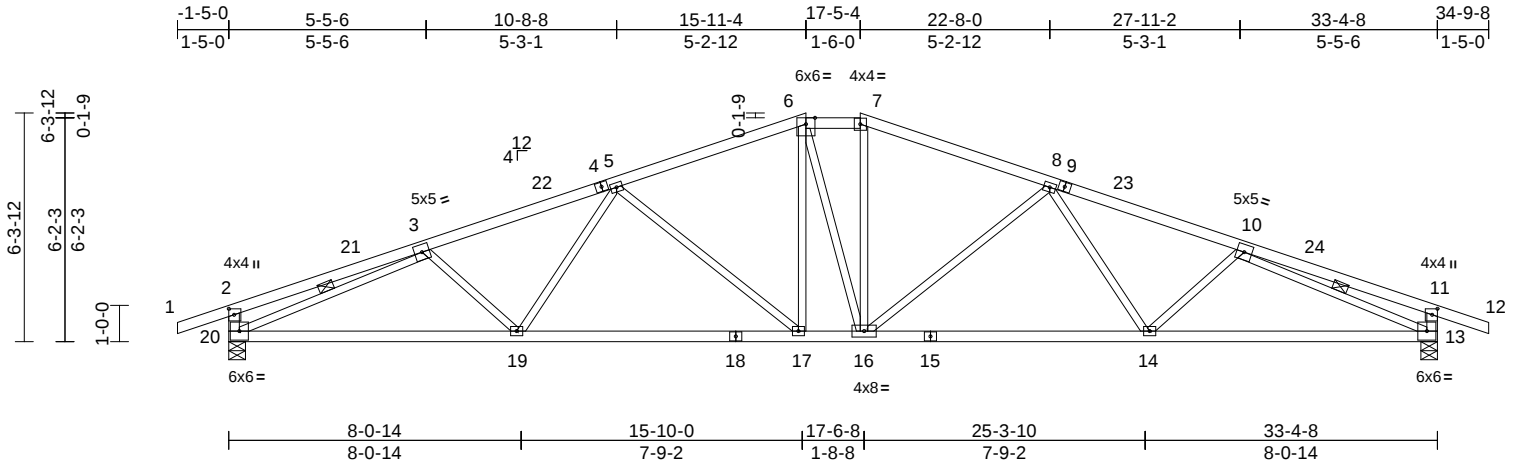
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply |                          |
| Sunflower Modern | A08   | Hip        | 1   | 1   | Job Reference (optional) |
|                  |       |            |     |     | I74482542                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:53

Page: 1

ID:BYroY?ISOj2Pom2wEJb\_EzeBba-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:63.6

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.74 | Vert(LL) | -0.20 | 17-19 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.68 | Vert(CT) | -0.42 | 17-19 | >945   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.87 | Horz(CT) | 0.13  | 13    | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 155 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2 \*Except\* 1-4,9-12:2x4 SP 1650F 1.5E  
BOT CHORD 2x4 SP 1650F 1.5E  
WEBS 2x3 SPF No.2 \*Except\* 20-2,13-11:2x4 SP 1650F 1.5E

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-4 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 9-1-14 oc bracing.  
WEBS 1 Row at midpt 3-20, 10-13

#### REACTIONS

(size) 13=0-5-8, 20=0-5-8  
Max Horiz 20=-81 (LC 17)  
Max Uplift 13=-339 (LC 9), 20=-339 (LC 8)  
Max Grav 13=1598 (LC 1), 20=1598 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/35, 2-3=-440/136, 3-5=-2802/693, 5-6=-2253/629, 6-7=-2086/635, 7-8=-2254/631, 8-10=-2801/700, 10-11=-440/136, 11-12=0/35, 2-20=-436/262, 11-13=-436/262  
BOT CHORD 19-20=-609/2617, 17-19=-539/2492, 16-17=-375/2084, 14-16=-508/2492, 13-14=-576/2617  
WEBS 6-17=-81/462, 6-16=-235/245, 7-16=-89/427, 3-20=-2508/607, 10-13=-2507/603, 3-19=-88/167, 5-19=-12/277, 5-17=-565/212, 8-16=-563/211, 8-14=-12/277, 10-14=-88/167

#### NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 15-11-4, Exterior(2E) 15-11-4 to 17-5-4, Exterior(2R) 17-5-4 to 24-6-2, Interior (1) 24-6-2 to 34-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SP 1650F 1.5E crushing capacity of 565 psi.
- 8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20 and 13. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

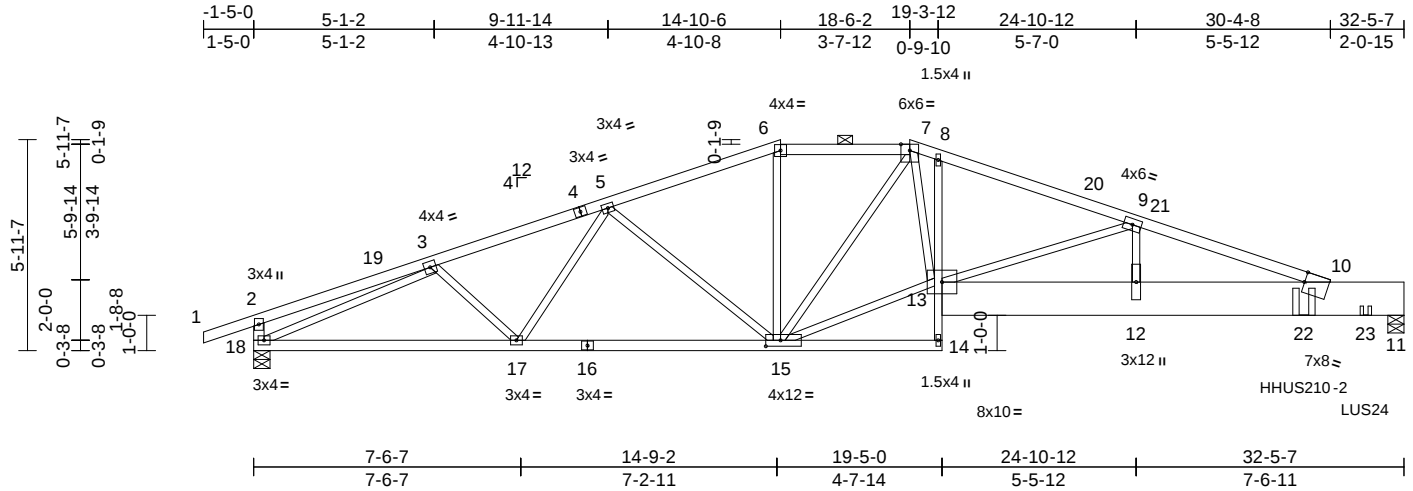
|                  |       |                     |     |     |                          |
|------------------|-------|---------------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type          | Qty | Ply |                          |
| Sunflower Modern | A09   | Roof Special Girder | 1   | 2   | Job Reference (optional) |
|                  |       |                     |     |     | I74482543                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:53

Page: 1

ID:82tMaDSkXvGZgcMDrwyXakyXpc4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoI7J4zJC?f



Scale = 1:65

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

| Loading                 | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP    |
|-------------------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|---------|
| TCLL (roof)             | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.81 | Vert(LL) | -0.24 | 12-13  | >999 | 240    | MT20    |
| TCDL                    | 10.0  | Lumber DOL      | 1.15            | BC       | 0.81 | Vert(CT) | -0.42 | 12-13  | >915 | 180    | 244/190 |
| BCLL                    | 0.0*  | Rep Stress Incr | NO              | WB       | 0.67 | Horz(CT) | 0.09  | 11     | n/a  | n/a    |         |
| BCDL                    | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |        |      |        |         |
| Weight: 370 lb FT = 20% |       |                 |                 |          |      |          |       |        |      |        |         |

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 14-8:2x3 SPF No.2,  
13-11:1 1/2" x 11 1/4" 2.0E Microllam® LVL  
WEBS 2x3 SPF No.2 \*Except\* 18-2:2x4 SP No.2

#### BRACING

TOP CHORD Structural wood sheathing directly applied or  
3-4-7 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

(size) 11=0-5-8, 18=0-5-8  
Max Horiz 18=114 (LC 12)  
Max Uplift 11=-1138 (LC 9), 18=-413 (LC 8)  
Max Grav 11=5917 (LC 1), 18=1920 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum  
Tension  
TOP CHORD 1-2=0/35, 2-3=-444/144, 3-5=-3603/860,  
5-6=-3242/849, 6-7=-3039/843,  
7-8=-4647/1210, 8-9=-4736/1162,  
9-10=-8100/1821, 2-18=-442/261  
BOT CHORD 17-18=-761/3244, 15-17=-758/3347,  
14-15=-42/199, 13-14=0/64, 8-13=-172/201,  
12-13=-1623/7478, 10-12=-1623/7478,  
10-11=0/0  
WEBS 6-15=-89/631, 7-15=-1673/375,  
13-15=-817/3874, 7-13=-666/2748,  
9-13=-3296/744, 9-12=-364/2284,  
3-18=-3212/742, 3-17=-2/289, 5-17=-48/183,  
5-15=-440/222

#### NOTES

- 2-ply truss to be connected together with 10d  
(0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0  
oc.  
Bottom chords connected as follows: 2x4 - 1 row at  
0-9-0 oc, 2x3 - 1 row at 0-9-0 oc, 2x12 - 2 rows  
staggered at 0-2-0 oc.  
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
- 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.
- Unbalanced roof live loads have been considered for  
this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0,  
Interior (1) 3-7-0 to 14-10-6, Exterior(2E) 14-10-6 to  
18-6-2, Exterior(2R) 18-6-2 to 23-6-2, Interior (1) 23-6-2  
to 30-4-8 zone; cantilever left and right exposed ; end  
vertical left and right exposed; C-C for members and  
forces & MWFRS for reactions shown; Lumber  
DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- Bearings are assumed to be: Joint 18 SP No.2 crushing  
capacity of 565 psi, Joint 11 Trus Joist® LVL 2.0 E  
crushing capacity of 750 psi.
- LGT2 Simpson Strong-Tie connectors recommended to  
connect truss to bearing walls due to UPLIFT at jt(s) 11.  
This connection is for uplift only and does not consider  
lateral forces.

- One H2.5T Simpson Strong-Tie connectors  
recommended to connect truss to bearing walls due to  
UPLIFT at jt(s) 18. This connection is for uplift only and  
does not consider lateral forces.
- This truss is designed in accordance with the 2018  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size  
or the orientation of the purlin along the top and/or  
bottom chord.
- Use Simpson Strong-Tie HHUS210-2 (30-16d Girder,  
10-16d Truss) or equivalent at 29-7-9 from the left end  
to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d  
Truss) or equivalent at 31-4-8 from the left end to  
connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- N/A
- LGT2 Hurricane ties must have two studs in line below  
the truss.

LOAD CASE(S) Standard



June 26,2025

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcscomponents.com](http://www.sbcscomponents.com))

RELEASE FOR CONSTRUCTION  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Gladwin, MI 49735  
314.434.1200 / MiTek-US.com

09/22/2025

|                  |       |                     |                          |     |           |
|------------------|-------|---------------------|--------------------------|-----|-----------|
| Job              | Truss | Truss Type          | Qty                      | Ply |           |
| Sunflower Modern | A09   | Roof Special Girder | 1                        | 2   | I74482543 |
|                  |       |                     | Job Reference (optional) |     |           |

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15,  
Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-70, 2-6=-70, 6-7=-70, 7-10=-70,  
14-18=-20, 10-13=-20, 10-11=-90  
Concentrated Loads (lb)  
Vert: 22=-4354 (F), 23=-487 (F)

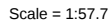
 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcsccomponents.com](http://www.sbcsccomponents.com))

**RELEASE FOR CONSTRUCTION**  
**MiTek**  
**AS NOTED FOR PLAN REVIEW**  
**DEVELOPMENT SERVICES**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
LEE'S SUMMIT, MISSOURI  
314.434.1200 / MiTek-US.com

09/22/2025

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:54 Page: 1  
ID:57e2QzG5EP7bJXy1akBqV1zeC6L-RfC?PsB70Hq3NSgPqnL8w3uITXbKGWrcD0i7J4zJC?f

[illegible]

## NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.

- 1) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 3-11-4, Exterior (2R) 3-11-4 to 11-0-2, Interior (1) 11-0-2 to 25-6-12, Exterior (2E) 25-6-12 to 30-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 9) Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18 and 11. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

1) Dead + Roof Live (balanced): Lumber Increase=1.15,  
Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-70, 2-3=-70, 3-8=-70, 8-9=-70, 9-10=-70,  
11-18=-20  
Concentrated Loads (lb)  
Vert: 3=-38 (F), 17=-18 (F), 12=-18 (F), 8=-38 (F),  
20=-38 (F), 21=-38 (F), 22=-38 (F), 24=-38 (F),  
25=-38 (F), 26=-38 (F), 27=-38 (F), 29=-38 (F),  
30=-38 (F), 31=-38 (F), 33=-117 (F), 34=-18 (F),  
35=-18 (F), 36=-18 (F), 37=-18 (F), 38=-18 (F),  
39=-18 (F), 40=-18 (F), 41=-18 (F), 42=-18 (F),  
43=-18 (F), 44=-117 (F)



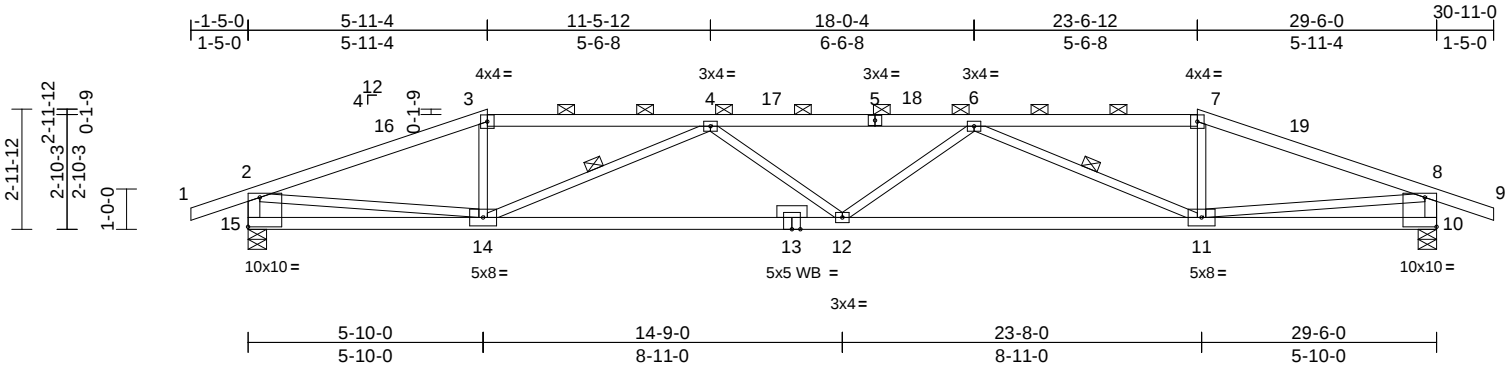
June 26, 2025

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria**, and **DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Components Association ([www.sbcsccomponents.com](http://www.sbcsccomponents.com))

09/22/2025

|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply | 174482545                |
| Sunflower Modern | B02   | Hip        | 1   | 1   | Job Reference (optional) |

ID:sCAwEKnRLJPdM\_A519xhCuzeC5h-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f



Scale = 1:57.2

Plate Offsets (X, Y): [10:Edge,0-8-12], [15:Edge,0-8-12]

| Loading                 | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP    |
|-------------------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|---------|
| TCLL (roof)             | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.92 | Vert(LL) | -0.29 | 12-14  | >999 | 240    | 197/144 |
| TCDL                    | 10.0  | Lumber DOL      | 1.15            | BC       | 0.83 | Vert(CT) | -0.57 | 11-12  | >617 | 180    |         |
| BCLL                    | 0.0*  | Rep Stress Incr | NO              | WB       | 0.69 | Horz(CT) | 0.10  | 10     | n/a  | n/a    |         |
| BCDL                    | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |        |      |        |         |
| Weight: 125 lb FT = 20% |       |                 |                 |          |      |          |       |        |      |        |         |

|                                            |                                                                                                                                |            |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>LUMBER</b>                              |                                                                                                                                |            |
| TOP CHORD                                  | 2x4 SP No.2 *Except* 3-5-5:7:2x4 SP 2400F 2.0E                                                                                 |            |
| BOT CHORD                                  | 2x4 SP 1650F 1.5E                                                                                                              |            |
| WEBS                                       | 2x3 SPF No.2 *Except* 15-2,10-8:2x4 SP No.2                                                                                    |            |
| OTHERS                                     | 2x4 SP No.2                                                                                                                    |            |
| <b>BRACING</b>                             |                                                                                                                                |            |
| TOP CHORD                                  | Structural wood sheathing directly applied or 2-11-1 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-8 max.): 3-7. |            |
| BOT CHORD                                  | Rigid ceiling directly applied or 7-6-2 oc bracing.                                                                            |            |
| WEBS                                       | 1 Row at midpt                                                                                                                 | 4-14, 6-11 |
| <b>REACTIONS</b>                           |                                                                                                                                |            |
| (size)                                     | 10=0-5-8, 15=0-5-8                                                                                                             |            |
| Max Horiz                                  | 15=18 (LC 16)                                                                                                                  |            |
| Max Uplift                                 | 10=-351 (LC 9), 15=-351 (LC 8)                                                                                                 |            |
| Max Grav                                   | 10=1424 (LC 1), 15=1424 (LC 1)                                                                                                 |            |
| <b>FORCES</b>                              |                                                                                                                                |            |
| (lb) - Maximum Compression/Maximum Tension |                                                                                                                                |            |
| TOP CHORD                                  | 1-2=0/35, 2-3=-2540/624, 3-4=-2332/619, 4-6=-3746/930, 6-7=-2328/611, 7-8=-2538/614, 8-9=0/35, 2-15=-1369/490, 8-10=-1370/486  |            |
| BOT CHORD                                  | 14-15=-163/352, 12-14=-850/3606, 11-12=-903/3652, 10-11=-141/358                                                               |            |
| WEBS                                       | 3-14=-29/510, 7-11=-37/534, 2-14=-410/2012, 8-11=-399/2004, 4-12=0/298, 4-14=-1481/431, 6-12=0/274, 6-11=-1534/446             |            |

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0,  
Interior (1) 3-7-0 to 5-11-4, Exterior(2R) 5-11-4 to 13-0-2,  
Interior (1) 13-0-2 to 23-6-12, Exterior(2E) 23-6-12 to  
30-11-0 zone; cantilever left and right exposed ; end  
vertical left and right exposed;C-C for members and  
forces & MWFRS for reactions shown; Lumber  
DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- 6) All bearings are assumed to be SP 1650F 1.5E crushing  
capacity of 565 psi.
- 7) One H2.5T Simpson Strong-Tie connectors  
recommended to connect truss to bearing walls due to  
UPLIFT at jt(s) 15 and 10. This connection is for uplift  
only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size  
or the orientation of the purlin along the top and/or  
bottom chord.

**LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

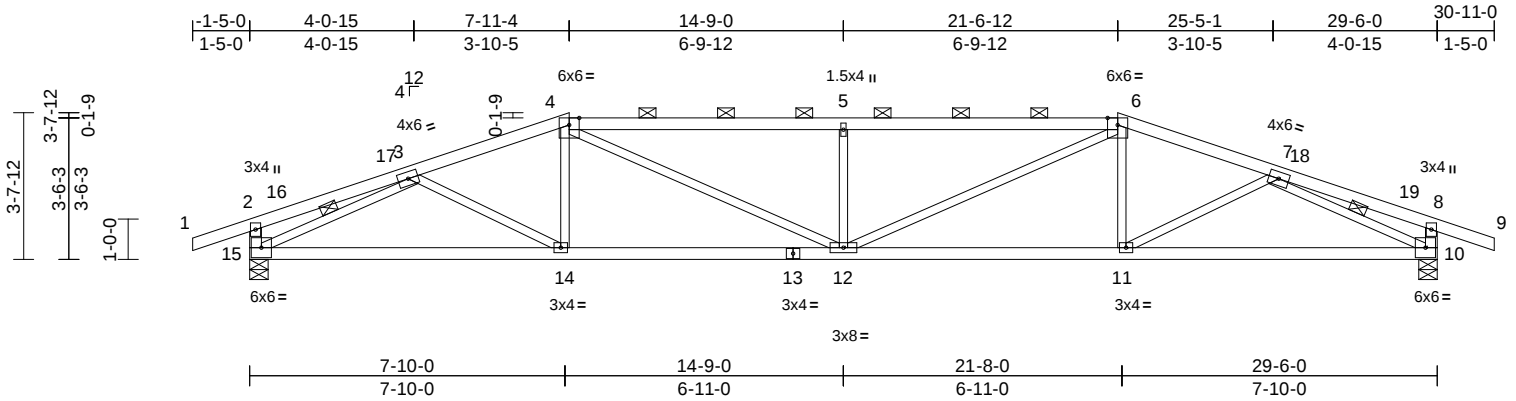
|                          |       |            |     |     |           |
|--------------------------|-------|------------|-----|-----|-----------|
| Job                      | Truss | Truss Type | Qty | Ply |           |
| Sunflower Modern         | B03   | Hip        | 1   | 1   | 174482546 |
| Job Reference (optional) |       |            |     |     |           |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:54

Page: 1

ID:OH8zbozTaEQMH5OAZWDRrGzeC5R-RfC?PsB70Hq3NSgPqnL8w3uITxbGKwRCDoi7J4zJC?f



Scale = 1:57.2

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.76 | Vert(LL) | -0.22 | 12-14 | >999   | 240 | MT20           | 197/144  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.79 | Vert(CT) | -0.40 | 12-14 | >885   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.51 | Horz(CT) | 0.10  | 10    | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 128 lb | FT = 20% |

#### LUMBER

|           |                                             |
|-----------|---------------------------------------------|
| TOP CHORD | 2x4 SP No.2 *Except* 4-6:2x4 SP 1650F 1.5E  |
| BOT CHORD | 2x4 SP No.2                                 |
| WEBS      | 2x3 SPF No.2 *Except* 15-2,10-8:2x4 SP No.2 |

#### BRACING

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

#### REACTIONS

|            |                                |
|------------|--------------------------------|
| (size)     | 10=0-5-8, 15=0-5-8             |
| Max Horiz  | 15=30 (LC 16)                  |
| Max Uplift | 10=-344 (LC 9), 15=-344 (LC 8) |
| Max Grav   | 10=1424 (LC 1), 15=1424 (LC 1) |

#### FORCES

|           |                                                                                                                                        |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------|
|           | (lb) - Maximum Compression/Maximum Tension                                                                                             |
| TOP CHORD | 1-2=0/35, 2-3=-289/92, 3-4=-2469/647, 4-5=-3075/857, 5-6=-3075/857, 6-7=-2468/646, 7-8=-290/93, 8-9=0/35, 2-15=-356/223, 8-10=-357/223 |
| BOT CHORD | 14-15=-564/2082, 12-14=-501/2317, 11-12=-498/2316, 10-11=-526/2082                                                                     |
| WEBS      | 4-14=-34/188, 4-12=-248/953, 5-12=-595/282, 6-12=-248/955, 6-11=-35/188, 3-15=-2108/604, 7-10=-2106/602, 3-14=-11/412, 7-11=-11/411    |

#### NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 7-11-4, Exterior(2R) 7-11-4 to 14-9-0, Interior (1) 14-9-0 to 21-6-12, Exterior(2R) 21-6-12 to 28-7-10, Interior (1) 28-7-10 to 30-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 10. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26, 2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

**09/22/2025**

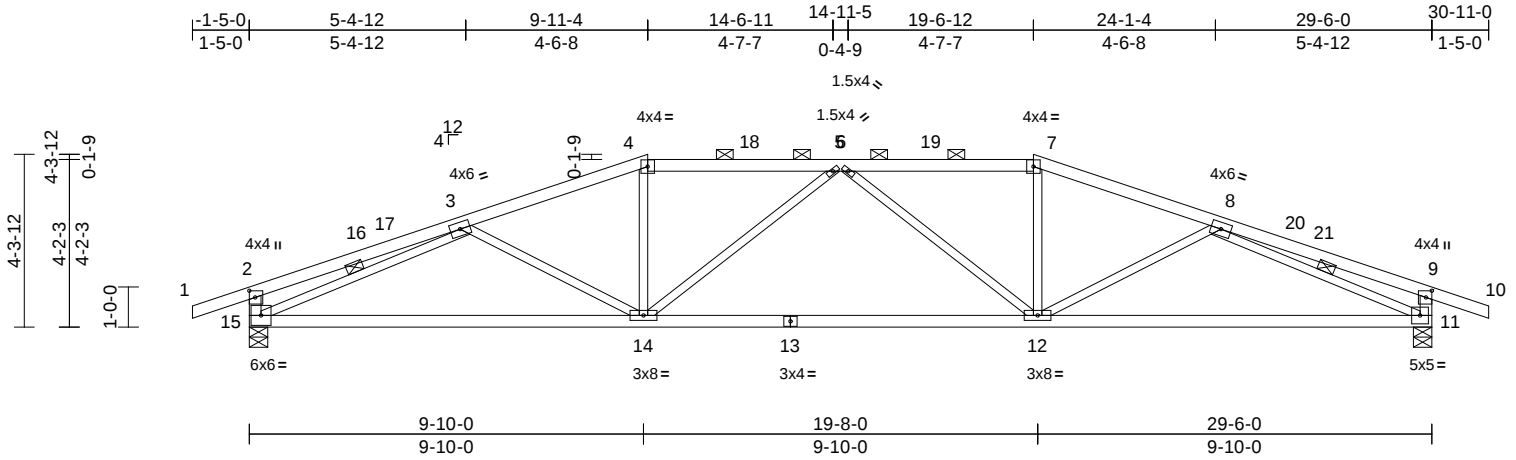
|                          |       |            |     |     |           |
|--------------------------|-------|------------|-----|-----|-----------|
| Job                      | Truss | Truss Type | Qty | Ply |           |
| Sunflower Modern         | B04   | Hip        | 1   | 1   | 174482547 |
| Job Reference (optional) |       |            |     |     |           |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:54

Page: 1

ID:W2yJu2LHWSC6t3hxjpmT3azeC4z-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDci7J4zJC?f



Scale = 1:57.5

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

| Loading                 | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP    |
|-------------------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|---------|
| TCLL (roof)             | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.56 | Vert(LL) | -0.36 | 12-14  | >975 | 240    | MT20    |
| TCDL                    | 10.0  | Lumber DOL      | 1.15            | BC       | 0.97 | Vert(CT) | -0.81 | 12-14  | >432 | 180    | 197/144 |
| BCLL                    | 0.0*  | Rep Stress Incr | NO              | WB       | 0.73 | Horz(CT) | 0.09  | 11     | n/a  | n/a    |         |
| BCDL                    | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |        |      |        |         |
| Weight: 129 lb FT = 20% |       |                 |                 |          |      |          |       |        |      |        |         |

#### LUMBER

|           |                                                    |
|-----------|----------------------------------------------------|
| TOP CHORD | 2x4 SP No.2                                        |
| BOT CHORD | 2x4 SP 1650F 1.5E *Except* 13-11:2x4 SP 2400F 2.0E |
| WEBS      | 2x3 SPF No.2 *Except* 15-2,11-9:2x4 SP 1650F 1.5E  |

#### BRACING

|           |                                                                                                                               |
|-----------|-------------------------------------------------------------------------------------------------------------------------------|
| TOP CHORD | Structural wood sheathing directly applied or 3-3-7 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-3 max.): 4-7. |
| BOT CHORD | Rigid ceiling directly applied or 8-11-2 oc bracing.                                                                          |
| WEBS      | 1 Row at midpt 3-15, 8-11                                                                                                     |

#### REACTIONS

|            |                                |
|------------|--------------------------------|
| (size)     | 11=0-5-8, 15=0-5-8             |
| Max Horiz  | 15=43 (LC 12)                  |
| Max Uplift | 11=334 (LC 9), 15=334 (LC 8)   |
| Max Grav   | 11=1424 (LC 1), 15=1424 (LC 1) |

#### FORCES

|                                            |                                                                                                                                                          |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| (lb) - Maximum Compression/Maximum Tension |                                                                                                                                                          |
| TOP CHORD                                  | 1-2=0/35, 2-3=-391/124, 3-4=-2390/644, 4-5=-2218/639, 5-6=-2478/763, 6-7=-2208/641, 7-8=-2379/646, 8-9=-410/125, 9-10=0/35, 2-15=-418/256, 9-11=-422/256 |
| BOT CHORD                                  | 14-15=-622/2234, 12-14=-596/2478, 11-12=-587/2231                                                                                                        |
| WEBS                                       | 4-14=-50/428, 7-12=-51/426, 3-15=-2135/626, 8-11=-2111/628, 6-12=-479/191, 5-14=-466/194, 8-12=-54/216, 3-14=-46/222                                     |

#### NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 9-11-4, Exterior(2R) 9-11-4 to 17-0-2, Interior (1) 17-0-2 to 19-6-12, Exterior(2R) 19-6-12 to 26-7-10, Interior (1) 26-7-10 to 30-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 15 SP 1650F 1.5E crushing capacity of 565 psi, Joint 11 SP 2400F 2.0E crushing capacity of 805 psi.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 11. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26,2025

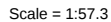
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:55 Page: 1  
ID:Ytp240plKR7a329RWVzc8pzeC4M-RfC?PsB70Hg3NSgPqnL8w3uITXBGKwRCDoi7J4zJC?f

[illegible]

June 26, 2025

**WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MP17473 (rev. 12/2022) BEFORE USE.**  
Design valid for use only with MiTeK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP11 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Components Association ([www.sbcscscomponents.com](http://www.sbcscscomponents.com))

**RELEASE FOR CONSTRUCTION**  
**AS NOTED FOR PLAN REVIEW**  
**DEVELOPMENT SERVICES**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
**LIFE'S SUMMIT, MISSOURI**  
314.434.1200 / MITek-US.com

09/22/2025

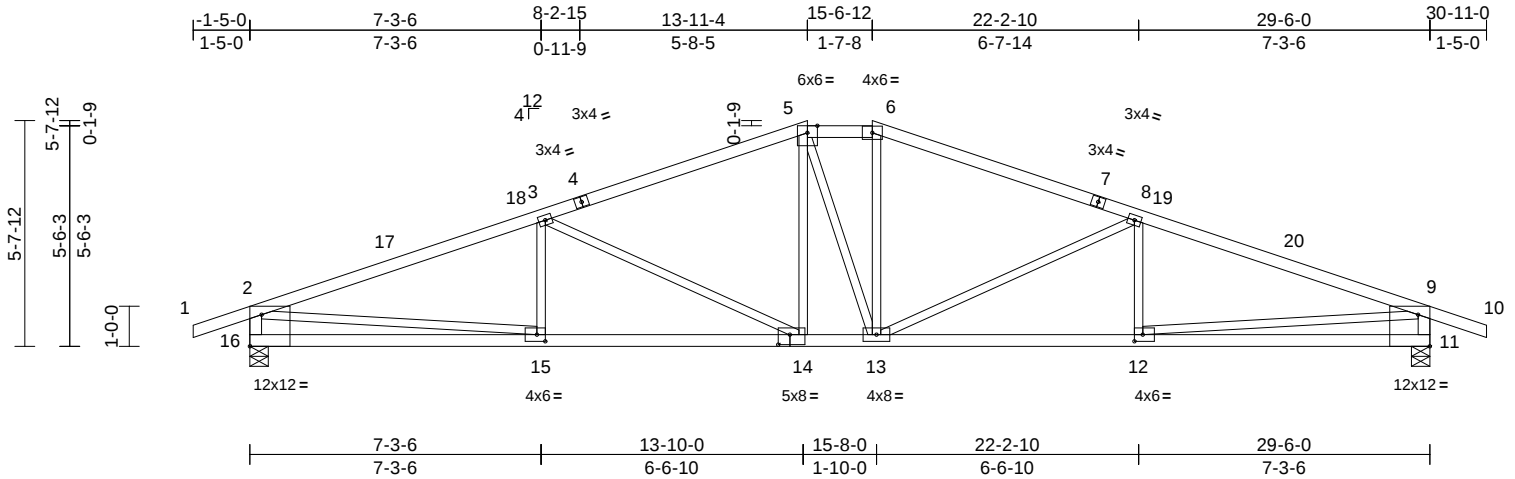
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply | 174482549                |
| Sunflower Modern | B06   | Hip        | 1   | 1   | Job Reference (optional) |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:55

Page: 1

ID:i3pSAVVquOafT2dWl75yK?zeC2x-RfC?PsB70Hq3NSgPqnl8w3uITxbGKwRCDoi7J4zJC?f



Scale = 1:57.6

Plate Offsets (X, Y): [11:Edge,0-9-8], [12:0-2-8,0-2-0], [14:0-3-8,0-3-0], [15:0-2-8,0-2-0], [16:Edge,0-9-8]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.94 | Vert(LL) | -0.16 | 14-15 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.81 | Vert(CT) | -0.33 | 14-15 | >999   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.80 | Horz(CT) | 0.07  | 11    | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 136 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2 \*Except\* 4-5-6-7:2x4 SP 1650F 1.5E  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x3 SPF No.2 \*Except\* 16-2,11-9:2x4 SP No.2

#### BRACING

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

#### REACTIONS

(size) 11=0-5-8, 16=0-5-8  
 Max Horiz 16=68 (LC 12)  
 Max Uplift 11=-309 (LC 9), 16=-309 (LC 8)  
 Max Grav 11=1424 (LC 1), 16=1424 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/35, 2-3=-2534/631, 3-5=-1992/569, 5-6=-1828/580, 6-8=-2005/566, 8-9=-2528/640, 9-10=0/35, 2-16=-1349/485, 9-11=-1346/483  
 BOT CHORD 15-16=-207/483, 13-15=-522/2322, 12-13=-493/2317, 11-12=-140/488  
 WEBS 3-15=-49/177, 3-14=-616/189, 5-14=-57/306, 5-13=-186/258, 6-13=-59/363, 8-13=-598/197, 8-12=-63/154, 2-15=-376/1849, 9-12=-384/1839

#### NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 13-11-4, Exterior(2E) 13-11-4 to 15-6-12, Exterior(2R) 15-6-12 to 22-7-10, Interior (1) 22-7-10 to 30-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 11. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
 AS NOTED FOR PLAN REVIEW  
 DEVELOPMENT SERVICES  
 18023 Swingley Ridge Rd.  
 Chesterfield, MO 63015  
 314.434.1200 / MiTek-US.com

09/22/2025

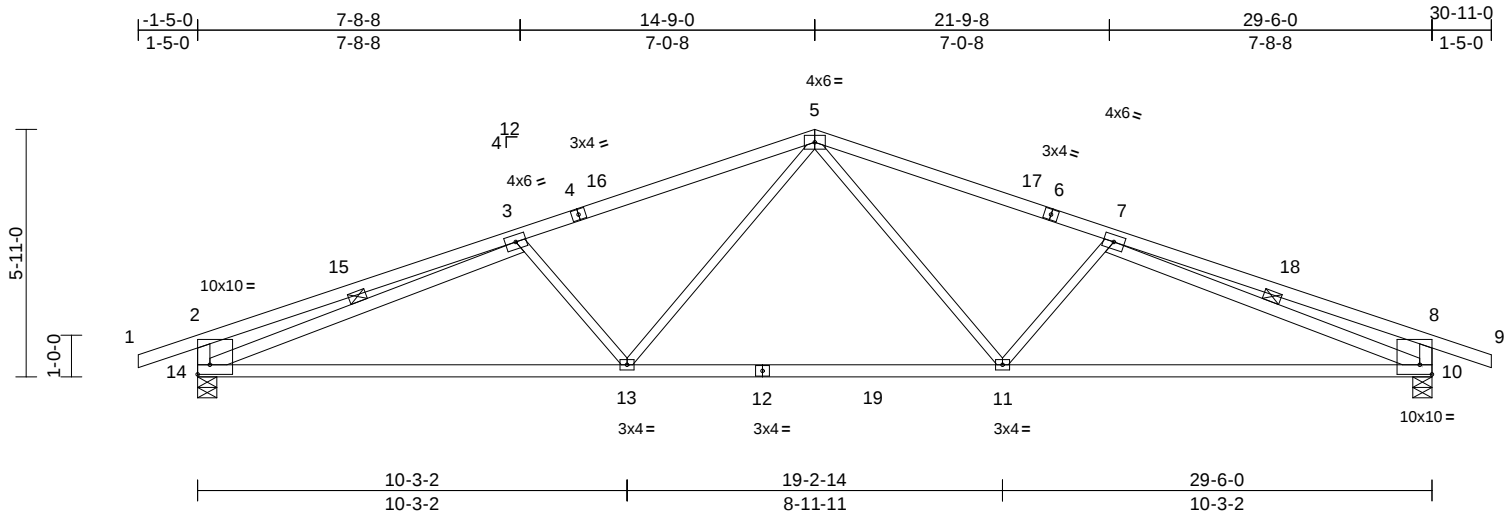
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply | Job Reference (optional) |
| Sunflower Modern | B07   | Common     | 1   | 1   | I74482550                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:55

Page: 1

ID:6Gn1IGnNK1o3jpsl?c6SaCzeCHI-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f



Scale = 1:55.1

Plate Offsets (X, Y): [2:Edge,0-2-12], [10:Edge,0-2-12]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.91 | Vert(LL) | -0.40 | 11-13 | >876   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.68 | Vert(CT) | -0.60 | 11-13 | >586   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.68 | Horz(CT) | 0.07  | 10    | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 138 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP 1650F 1.5E  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x3 SPF No.2 \*Except\*  
 14-2,14-3,10-8,10-7:2x4 SP No.2

#### BRACING

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

WEBS 1 Row at midpt 3-14, 7-10

**REACTIONS** (size) 10=0-5-8, 14=0-5-8  
 Max Horiz 14=74 (LC 12)  
 Max Uplift 10=-303 (LC 9), 14=-303 (LC 8)  
 Max Grav 10=1461 (LC 2), 14=1460 (LC 2)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/35, 2-3=-594/197, 3-5=-2464/568,  
 5-7=-2445/569, 7-8=-619/195, 8-9=0/35,  
 2-14=-532/321, 8-10=-535/320  
 BOT CHORD 13-14=-504/2427, 11-13=-285/1808,  
 10-11=-474/2411  
 WEBS 5-11=-113/751, 7-11=-410/269,  
 5-13=-110/779, 3-13=-408/270,  
 3-14=-2102/457, 7-10=-2059/459

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 14-9-0, Exterior(2R) 14-9-0 to 19-9-0, Interior (1) 19-9-0 to 30-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 and 10. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
 AS NOTED FOR PLAN REVIEW  
 DEVELOPMENT SERVICES  
 16023 Swingley Ridge Rd.  
 Chesterfield, MO 63015  
 314.434.1200 / MiTek-US.com

09/22/2025

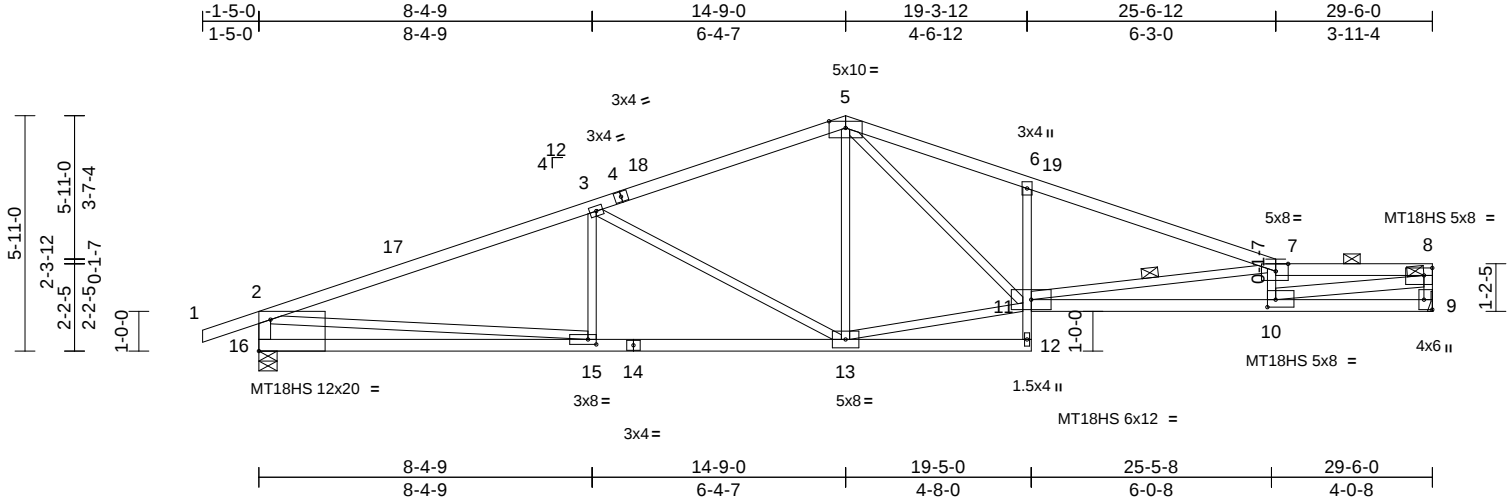
|                          |       |              |     |     |           |
|--------------------------|-------|--------------|-----|-----|-----------|
| Job                      | Truss | Truss Type   | Qty | Ply |           |
| Sunflower Modern         | B08   | Roof Special | 1   | 1   | 174482551 |
| Job Reference (optional) |       |              |     |     |           |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:55

Page: 1

ID:0mMEUz1XEfAcWAfckRIX3PzeC1V-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:57.9

Plate Offsets (X, Y): [7:0-3-12,Edge], [8:Edge,0-2-4], [9:Edge,0-2-8], [10:0-2-8,0-2-4], [15:0-2-8,0-1-8], [16:Edge,0-9-8]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.88 | Vert(LL) | -0.32 | 10-11 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.73 | Vert(CT) | -0.60 | 10-11 | >583   | 180 | MT18HS         | 197/144  |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.87 | Horz(CT) | 0.10  | 9     | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 136 lb | FT = 20% |

#### LUMBER

|           |                                                                |
|-----------|----------------------------------------------------------------|
| TOP CHORD | 2x4 SP 1650F 1.5E *Except* 7-8:2x4 SP No.2                     |
| BOT CHORD | 2x4 SP No.2 *Except* 12-6:2x3 SPF No.2, 11-9:2x4 SP 2400F 2.0E |
| WEBS      | 2x3 SPF No.2 *Except* 10-8,16-2:2x4 SP 1650F 1.5E              |

#### BRACING

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

#### REACTIONS

|            |                               |
|------------|-------------------------------|
| (size)     | 9= Mechanical, 16=0-5-8       |
| Max Horiz  | 16=109 (LC 12)                |
| Max Uplift | 9=232 (LC 9), 16=301 (LC 8)   |
| Max Grav   | 9=1313 (LC 1), 16=1429 (LC 1) |

#### FORCES

|                                            |                                                                                                                                           |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| (lb) - Maximum Compression/Maximum Tension |                                                                                                                                           |
| TOP CHORD                                  | 1-2=0/35, 2-3=-2497/567, 3-5=-1901/506, 5-6=-3059/818, 6-7=-3102/739, 7-8=-4509/1035, 8-9=-1207/324, 2-16=-1340/485                       |
| BOT CHORD                                  | 15-16=-316/699, 13-15=-552/2270, 12-13=-27/67, 11-12=0/76, 6-11=-419/234, 10-11=-1023/4399, 9-10=-73/205                                  |
| WEBS                                       | 5-11=-414/1586, 8-10=-1012/4413, 2-15=-240/1577, 5-13=-44/181, 11-13=-364/1706, 3-13=-666/210, 3-15=-3/186, 7-10=-993/331, 7-11=-1524/357 |

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 14-9-0, Exterior(2R) 14-9-0 to 19-9-0, Interior (1) 19-9-0 to 29-4-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: Joint 16 SP No.2 crushing capacity of 565 psi.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 232 lb uplift at joint 9.
- 10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16. This connection is for uplift only and does not consider lateral forces.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26,2025

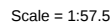
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / Mitek-US.com

09/22/2025

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:55 Page: 1  
ID:zEbiAutSIA?gx?3q8?vu9zeC0P-RfC?PsB70Hq3NSaPqnL8w3ulTXbGKwRCd0J74zJC?f

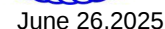


| <b>Loading</b> | (psf) | <b>Spacing</b>  | 2-0-0           | <b>CSI</b> |      | <b>DEFL</b> | in    | (loc) | l/defl | L/d | <b>PLATES</b>  | <b>GRIP</b> |
|----------------|-------|-----------------|-----------------|------------|------|-------------|-------|-------|--------|-----|----------------|-------------|
| TCLL (roof)    | 25.0  | Plate Grip DOL  | 1.15            | TC         | 0.72 | Vert(LL)    | -0.24 | 12-13 | >999   | 240 | MT20           | 244/190     |
| TCDL           | 10.0  | Lumber DOL      | 1.15            | BC         | 0.91 | Vert(CT)    | -0.42 | 12-13 | >829   | 180 |                |             |
| BCLL           | 0.0 * | Rep Stress Incr | NO              | WB         | 0.86 | Horz(CT)    | 0.12  | 11    | n/a    | n/a |                |             |
| BCDL           | 10.0  | Code            | IRC2018/TP12014 | Matrix-S   |      |             |       |       |        |     | Weight: 135 lb | FT = 20%    |

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
exterior zone and C-C Exterior(2E) -1.5-0 to 3-7-0,  
Interior (1) 3-7-0 to 14-9-0, Exterior(2R) 14-9-0 to  
19-9-0, Interior (1) 19-9-0 to 29-4-12 zone; cantilever left  
and right exposed ; end vertical left and right  
exposed; C-C for members and forces & MWFRS for  
reactions shown; Lumber DOL=1.60 plate grip  
DOL=1.60
- 3) 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  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- 6) Bearings are assumed to be: Joint 18 SP No.2 crushing  
capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 235 lb uplift at  
joint 11.
- 9) One H2.5T Simpson Strong-Tie connectors  
recommended to connect truss to bearing walls due to  
UPLIFT at jt(s) 18. This connection is for uplift only and  
does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size  
or the orientation of the purlin along the top and/or  
bottom chord

## NOTES

- 1) Unbalanced roof live loads have been considered for this design.



**WARNING – verify design parameters and READ NOTES on this and INCLUDED MITER REFERENCE PAGE MIT-7475 REV. 12/2023 BEFORE USE.** Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinet.org](http://www.tpinet.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcsccomponents.com](http://www.sbcsccomponents.com))

**RELEASE FOR CONSTRUCTION**  
**AS NOTED FOR PLAN REVIEW**  
**DEVELOPMENT SERVICES**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314 434 1200 / MiTek-LLS.com

09/22/2025

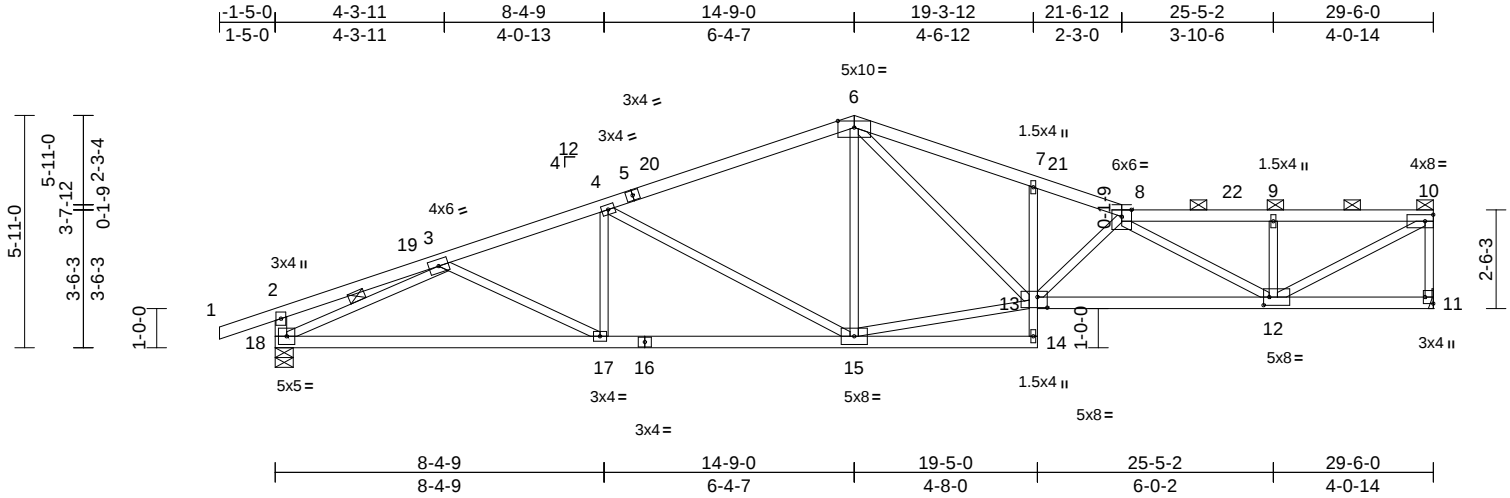
|                  |       |              |     |     |                          |
|------------------|-------|--------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type   | Qty | Ply | Job Reference (optional) |
| Sunflower Modern | B10   | Roof Special | 1   | 1   | I74482553                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:55

Page: 1

ID:OQROD08J0QDn?4XEUhOZflzeC\_m-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:58.7

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.72 | Vert(LL) | -0.21 | 7-13   | >999 | 240    | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.91 | Vert(CT) | -0.39 | 17-18  | >896 | 180    |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.86 | Horz(CT) | 0.11  | 11     | n/a  | n/a    |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |        |      |        | Weight: 137 lb | FT = 20% |

#### LUMBER

|           |                                                                 |
|-----------|-----------------------------------------------------------------|
| TOP CHORD | 2x4 SP No.2 *Except* 5-6:2x4 SP 1650F 1.5E                      |
| BOT CHORD | 2x4 SP No.2 *Except* 14-7:2x3 SPF No.2, 13-11:2x4 SP 1650F 1.5E |
| WEBS      | 2x3 SPF No.2 *Except* 18-2:2x4 SP No.2                          |

#### BRACING

|           |                                                                                                                                  |
|-----------|----------------------------------------------------------------------------------------------------------------------------------|
| TOP CHORD | Structural wood sheathing directly applied or 3-0-12 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-11 max.): 8-10. |
| BOT CHORD | Rigid ceiling directly applied or 6-11-8 oc bracing.                                                                             |
| WEBS      | 1 Row at midpt 3-18                                                                                                              |

#### REACTIONS

|            |                                |
|------------|--------------------------------|
| (size)     | 11= Mechanical, 18=0-5-8       |
| Max Horiz  | 18=114 (LC 12)                 |
| Max Uplift | 11=240 (LC 9), 18=296 (LC 8)   |
| Max Grav   | 11=1313 (LC 1), 18=1429 (LC 1) |

#### FORCES

|                                            |                                                                                                                                                                     |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (lb) - Maximum Compression/Maximum Tension |                                                                                                                                                                     |
| TOP CHORD                                  | 1-2=0/35, 2-3=-331/64, 3-4=-2430/575, 4-6=-1903/509, 6-7=-2994/794, 7-8=-3005/728, 8-9=-2087/494, 9-10=-2084/492, 10-11=-1277/361, 2-18=-376/221                    |
| BOT CHORD                                  | 17-18=-663/2111, 15-17=-631/2269, 14-15=-34/93, 13-14=0/77, 7-13=-211/146, 12-13=-852/3260, 11-12=-41/51                                                            |
| WEBS                                       | 6-13=-384/1507, 8-13=-634/179, 8-12=-1366/347, 10-12=-589/2360, 3-18=-2088/572, 6-15=-43/184, 13-15=-439/1685, 4-15=-663/207, 4-17=0/198, 3-17=0/208, 9-12=-346/190 |

#### NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 14-9-0, Exterior(2R) 14-9-0 to 19-9-0, Interior (1) 19-9-0 to 29-4-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 18 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 240 lb uplift at joint 11.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26,2025

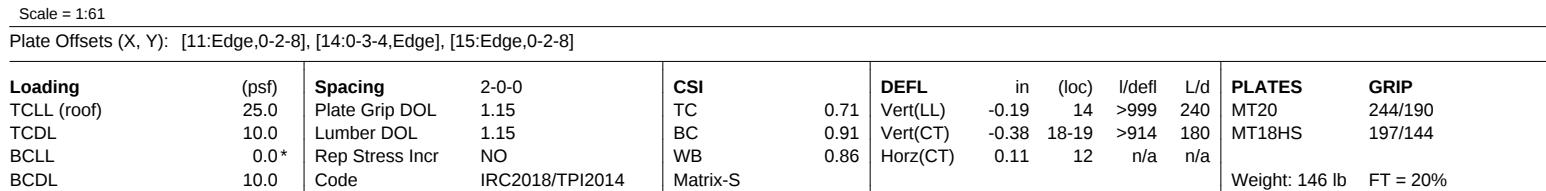
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:55 Page: 1  
ID: iOXb54ShLwyJagMBN4r7alzeBz3-RfC?PsB70Hg3NSgPqnL8w3uITXbGKWRcD0i7J4zJC?f



- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
exterior zone and C-C Exterior(2E) -1.5-0 to 3-7-0,  
Interior (1) 3-7-0 to 14-9-0, Exterior(2E) 14-9-0 to  
20-0-2, Interior (1) 20-0-2 to 23-5-4, Exterior(2E) 23-5-4  
to 25-3-12, Interior (1) 25-3-12 to 29-4-12 zone;  
cantilever left and right exposed ; end vertical left  
and right exposed; C-C for members and forces & MWFRS  
for reactions shown; Lumber DOL=1.60 plate grip  
DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 3x4 MT20 unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- 8) Bearings are assumed to be: Joint 19 SP No.2 crushing  
capacity of 565 psi.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 242 lb uplift at  
joint 12.
- 11) One H2.5T Simpson Strong-Tie connectors  
recommended to connect truss to bearing walls due to  
UPLIFT at jt(s) 19. This connection is for uplift only and  
does not consider lateral forces.
- 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.



STATE OF MISSOURI

JIE LU

NUMBER  
PE-029327

PROFESSIONAL ENGINEER

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria**, and **DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcscomponents.com](http://www.sbcscomponents.com))

**RELEASE FOR CONSTRUCTION**  
**Mitek®**  
**AS NOTED FOR PLAN REVIEW**  
**DEVELOPMENT SERVICES**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
**LIFE'S SUMMIT MISSOURI**  
314 434 1200 (Mitek-115.com)

09/22/2025

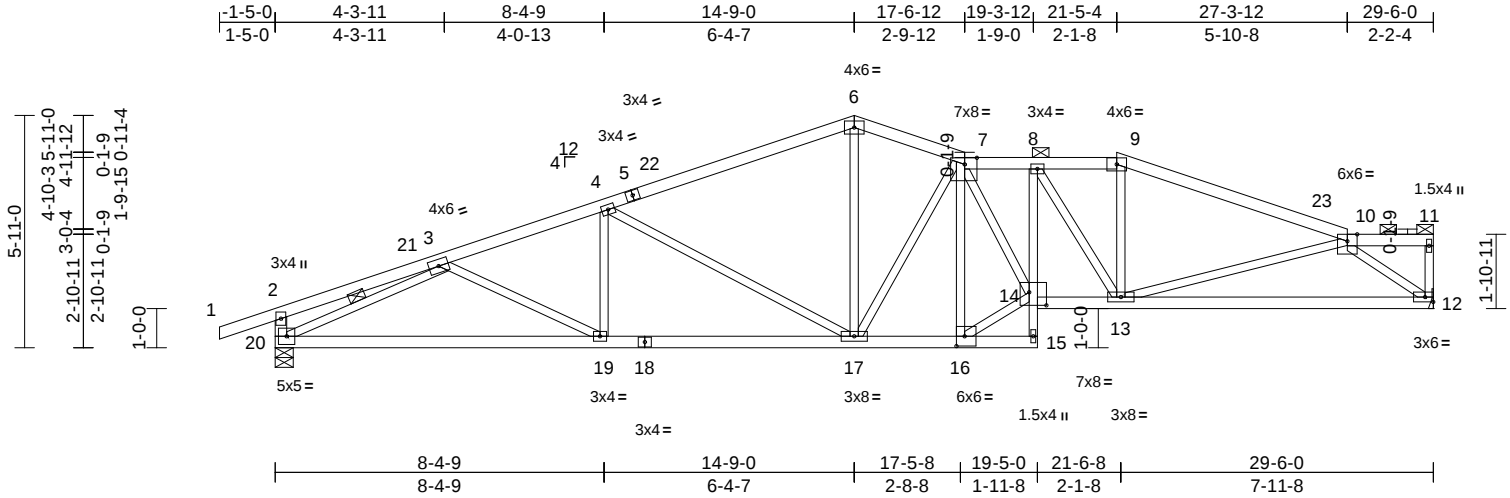
|                  |       |              |     |     |                          |
|------------------|-------|--------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type   | Qty | Ply | 174482555                |
| Sunflower Modern | B12   | Roof Special | 1   | 1   | Job Reference (optional) |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:56

Page: 1

ID:lr3Y21BRh8abt\_5TG9kvU7zeBID-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:58.7

Plate Offsets (X, Y): [7:0-3-12,0-2-0], [14:0-5-4,0-4-0], [16:0-2-8,0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 1.00 | Vert(LL) | -0.17 | 19-20 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.91 | Vert(CT) | -0.38 | 19-20 | >929   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.86 | Horz(CT) | 0.11  | 12    | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 142 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2 \*Except\* 5-6:2x4 SP 1650F 1.5E  
 BOT CHORD 2x4 SP No.2 \*Except\* 15-8:2x3 SPF No.2  
 WEBS 2x3 SPF No.2 \*Except\* 20-2:2x4 SP No.2

#### BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-6-8 max.): 7-9, 10-11.

BOT CHORD Rigid ceiling directly applied or 6-11-13 oc bracing.

WEBS 1 Row at midpt 3-20

**REACTIONS** (size) 12= Mechanical, 20=0-5-8  
 Max Horiz 20=112 (LC 12)  
 Max Uplift 12=236 (LC 9), 20=295 (LC 8)  
 Max Grav 12=1313 (LC 1), 20=1429 (LC 1)

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

TOP CHORD 1-2=0/35, 2-3=-330/67, 3-4=-2431/596, 4-6=-1900/529, 6-7=-1852/540, 7-8=-2550/714, 8-9=-2148/587, 9-10=-2350/582, 10-11=-66/20, 11-12=-37/19, 2-20=-376/222

BOT CHORD 19-20=-645/2111, 17-19=-618/2270, 16-17=-530/2004, 15-16=-17/102, 14-15=0/45, 8-14=-135/460, 13-14=-686/2557, 12-13=-476/1607

WEBS 7-16=-1229/358, 14-16=-622/2304, 7-14=-305/1130, 8-13=-761/258, 9-13=-43/444, 10-13=-71/574, 10-12=-1983/591, 3-20=-2089/587, 6-17=-173/832, 7-17=-566/185, 4-17=-664/205, 4-19=0/203, 3-19=0/210

#### NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 14-9-0, Exterior(2E) 14-9-0 to 17-6-12, Interior (1) 17-6-12 to 21-5-4, Exterior(2R) 21-5-4 to 26-5-4, Interior (1) 26-5-4 to 29-4-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Bearings are assumed to be: Joint 20 SP No.2 crushing capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 236 lb uplift at joint 12.
- 9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

**RELEASE FOR CONSTRUCTION**  
**Mitek**  
 AS NOTED FOR PLAN REVIEW  
 DEVELOPMENT SERVICES  
 18023 Swingley Ridge Rd.  
 Chesterfield, MO 63015  
 314.434.1200 / MiTek-US.com

**09/22/2025**

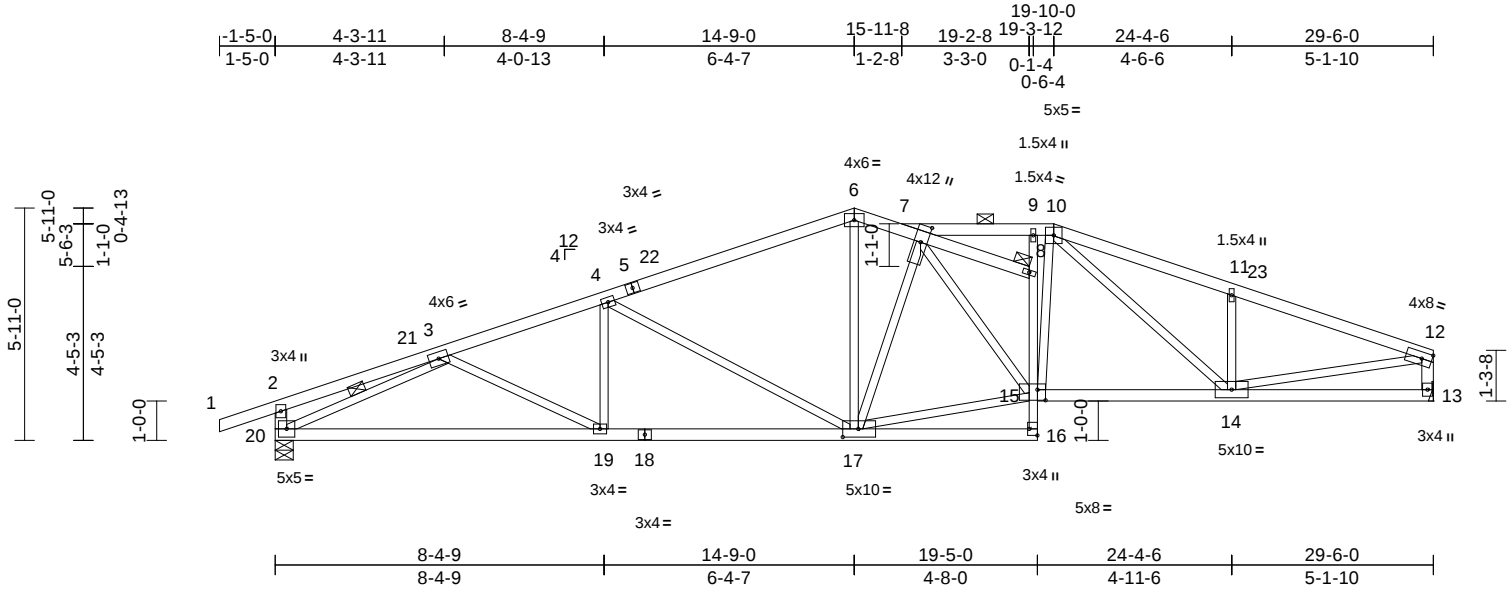
|                  |       |              |     |     |                          |
|------------------|-------|--------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type   | Qty | Ply | 174482556                |
| Sunflower Modern | B13   | Roof Special | 1   | 1   | Job Reference (optional) |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:56

Page: 1

ID:X0i77eWRoxR\_4uVcjGjixKzeBjV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?i



Scale = 1:58.7

Plate Offsets (X, Y): [7:0-5-4,0-2-0], [15:0-2-8,0-3-4], [16:Edge,0-2-8], [17:0-4-12,0-2-8]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.70 | Vert(LL) | -0.17 | 19-20 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.91 | Vert(CT) | -0.37 | 19-20 | >941   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.85 | Horz(CT) | 0.09  | 13    | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 149 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2 \*Except\* 5-6:2x4 SP 1650F 1.5E  
 BOT CHORD 2x4 SP No.2 \*Except\* 16-9:2x3 SPF No.2  
 WEBS 2x3 SPF No.2 \*Except\* 20-2:2x4 SP 2400F 2.0E, 13-12:2x4 SP No.2

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 3-6-10 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-15 max.): 7-8, 7-10.  
 BOT CHORD Rigid ceiling directly applied or 7-3-9 oc bracing.  
 WEBS 1 Row at midpt 3-20  
 JOINTS 1 Brace at Jt(s): 8

#### REACTIONS

(size) 13= Mechanical, 20=0-5-8  
 Max Horiz 20=110 (LC 12)  
 Max Uplift 13=-233 (LC 9), 20=-295 (LC 8)  
 Max Grav 13=1311 (LC 1), 20=1427 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/35, 2-3=-342/71, 3-4=-2425/621, 4-6=-1900/545, 6-7=-1803/560, 7-8=-2/15, 7-9=-2061/625, 9-10=-2047/623, 10-11=-2228/683, 11-12=-2225/595, 2-20=-381/221, 12-13=-1255/385  
 BOT CHORD 19-20=-603/2107, 17-19=-581/2265, 16-17=-20/78, 15-16=0/79, 8-15=0/77, 8-9=-7/83, 14-15=-488/2000, 13-14=-71/150  
 WEBS 4-19=0/199, 11-14=-359/223, 3-20=-2073/575, 12-14=-480/1951, 6-17=-150/749, 4-17=-656/205, 3-19=0/208, 10-15=-89/386, 10-14=-98/188, 7-17=-800/236, 7-15=-62/210, 15-17=-483/1942

#### NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 14-9-0, Exterior(2E) 14-9-0 to 16-4-3, Interior (1) 16-4-3 to 19-10-0, Exterior(2R) 19-10-0 to 24-10-0, Interior (1) 24-10-0 to 29-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Bearings are assumed to be: Joint 20 SP No.2 crushing capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 13.
- 9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
 AS NOTED FOR PLAN REVIEW  
 DEVELOPMENT SERVICES  
 18023 Swingley Ridge Rd.  
 Chesterfield, MO 63015  
 314.434.1200 / MiTek-US.com

09/22/2025

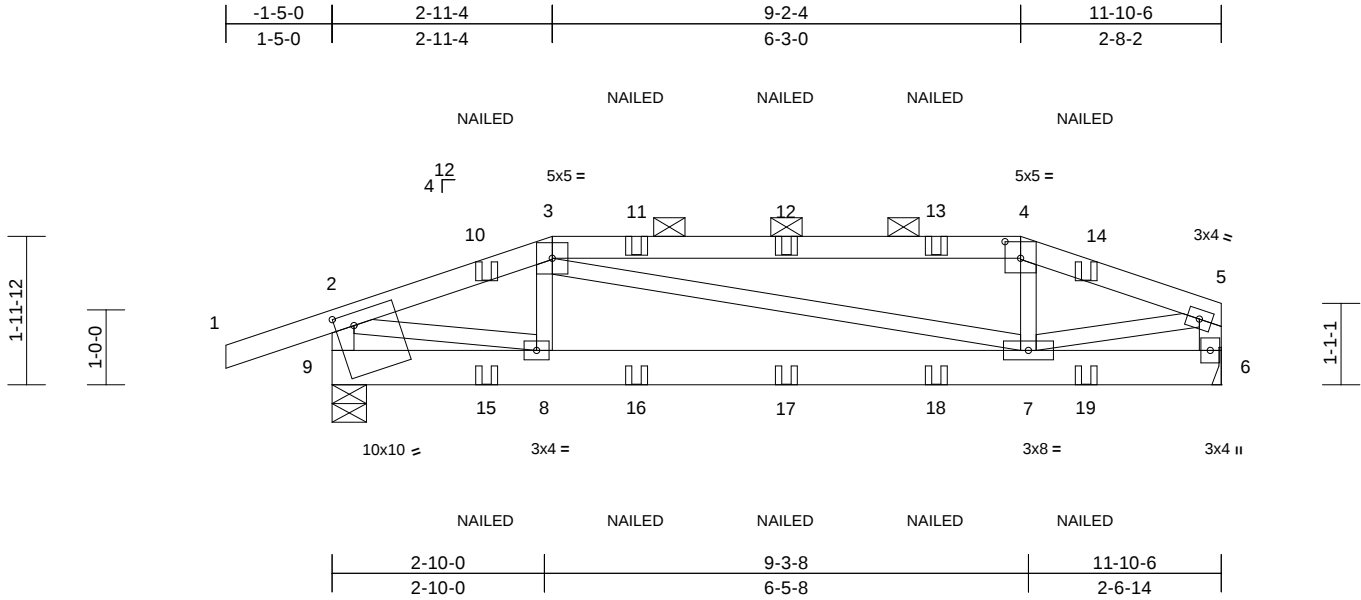
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply | Job Reference (optional) |
| Sunflower Modern | C01   | Hip Girder | 1   | 1   | I74482557                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:56

Page: 1

ID:AeRCOyHWm1H5KpGoOHj2Loz7HuD-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:30.7

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|---------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.83 | Vert(LL) | 0.02  | 7-8    | >999 | 240           | 197/144  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.24 | Vert(CT) | -0.05 | 7-8    | >999 | 180           |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.26 | Horz(CT) | 0.01  | 6      | n/a  | n/a           |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |        |      |               |          |
|             |       |                 |                 |          |      |          |       |        |      | Weight: 54 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\* 9-2,6-5:2x4 SP 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 (4-5-7 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size) 6= Mechanical, 9=0-5-8  
Max Horiz 9=32 (LC 32)  
Max Uplift 6=-152 (LC 9), 9=-227 (LC 8)  
Max Grav 6=552 (LC 1), 9=674 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/35, 2-3=-836/449, 3-4=-755/468, 4-5=-804/439, 2-9=-631/443, 5-6=-509/292  
BOT CHORD 8-9=-65/92, 7-8=-430/774, 6-7=-58/66  
WEBS 3-8=-74/174, 3-7=-61/28, 4-7=-108/189, 2-8=-408/767, 5-7=-373/713

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 2-11-4, Exterior(2R) 2-11-4 to 7-11-4, Interior (1) 7-11-4 to 9-2-4, Exterior(2E) 9-2-4 to 11-8-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 9 SPF No.2 crushing capacity of 425 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 152 lb uplift at joint 6.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 6-9=-20  
Concentrated Loads (lb)  
Vert: 11=-2 (F), 12=-2 (F), 13=-2 (F), 15=-32 (F), 16=-2 (F), 17=-2 (F), 18=-2 (F), 19=-32 (F)



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

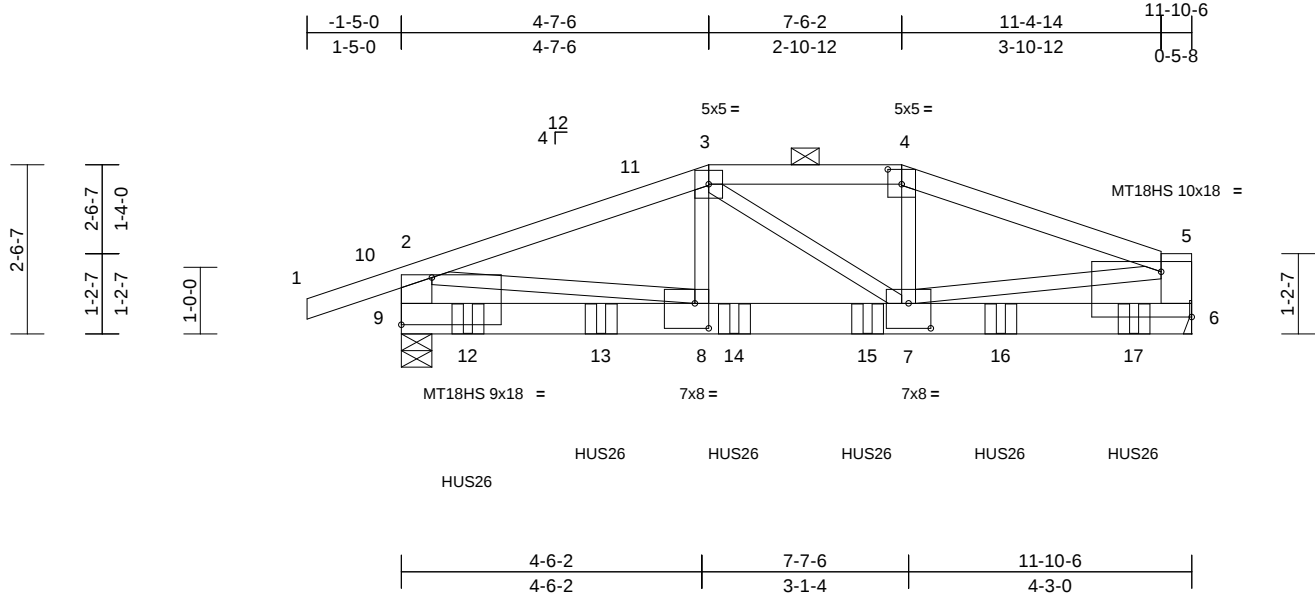
|                  |       |                     |     |     |                          |
|------------------|-------|---------------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type          | Qty | Ply |                          |
| Sunflower Modern | C02   | Roof Special Girder | 1   | 2   | Job Reference (optional) |
|                  |       |                     |     |     | I74482558                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:56

Page: 1

ID:RoDROLE8cpiSAiewuld1vzz7Hrh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:34.6

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

| Loading     | (psf) | Spacing         | 1-10-0          | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP                    |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|-------------------------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.46 | Vert(LL) | -0.06 | 7-8    | >999 | 240    | MT20 197/144            |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.74 | Vert(CT) | -0.11 | 7-8    | >999 | 180    | MT18HS 197/144          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.71 | Horz(CT) | 0.02  | 6      | n/a  | n/a    |                         |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |        |      |        |                         |
|             |       |                 |                 |          |      |          |       |        |      |        | Weight: 111 lb FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\* 5-6,9-2:2x6 SPF No.2

#### BRACING

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

#### REACTIONS

(size) 6= Mechanical, 9=0-5-8  
Max Horiz 9=24 (LC 11)  
Max Uplift 6=-839 (LC 9), 9=-896 (LC 8)  
Max Grav 6=4394 (LC 1), 9=4423 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/33, 2-3=-5845/1386, 3-4=-5240/1297, 4-5=-5659/1340, 5-6=-2729/728, 2-9=-2768/837  
BOT CHORD 8-9=-480/1654, 7-8=-1262/5393, 6-7=-329/1284  
WEBS 3-8=-307/1803, 3-7=-258/65, 4-7=-286/1640, 2-8=-843/3876, 5-7=-921/4107

#### NOTES

- 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 0-6-0 oc.  
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
- 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.

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 4-7-6, Exterior(2E) 4-7-6 to 11-7-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 9 SPF No.2 crushing capacity of 425 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 839 lb uplift at joint 6.
- Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-0-0 from the left end to 11-0-0 to connect truss(es) to back face of bottom chord.

16) Fill all nail holes where hanger is in contact with lumber.

#### LOAD CASE(S)

- Standard
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-64, 2-3=-64, 3-4=-64, 4-5=-64, 6-9=-18  
Concentrated Loads (lb)  
Vert: 12=-1297 (B), 13=-1295 (B), 14=-1295 (B), 15=-1292 (B), 16=-1295 (B), 17=-1296 (B)



June 26,2025

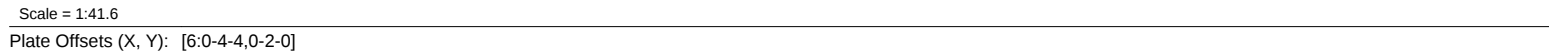
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

**RELEASE FOR CONSTRUCTION**  
**Mitek**  
**AS NOTED FOR PLAN REVIEW**  
**DEVELOPMENT SERVICES**  
18023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

**09/22/2025**

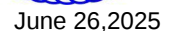
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:56 Page: 1  
ID:JltgWHGfhNn71UYudwH0V2z7HsQ-RfC?Psb70Hq3NSgPqnL8w3uITXbGKwRCdoi7J4zJC?f



|                  |                                                                                                                                     |                                            |                                                                                                                                                                                                       |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LUMBER</b>    |                                                                                                                                     |                                            |                                                                                                                                                                                                       |
| TOP CHORD        | 2x4 SP No.2                                                                                                                         |                                            | 3) Provide adequate drainage to prevent water ponding.                                                                                                                                                |
| BOT CHORD        | 2x4 SP No.2                                                                                                                         |                                            | 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.                                                                                        |
| WEBS             | 2x3 SPF No.2 *Except*                                                                                                               | 13-2:2x4 SP No.2                           | 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members. |
| <b>BRACING</b>   |                                                                                                                                     |                                            |                                                                                                                                                                                                       |
| TOP CHORD        | Structural wood sheathing directly applied or 5-8-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-8-0 max.): 3-5, 6-7. |                                            | 6) Bearings are assumed to be: Joint 13 SP No.2 crushing capacity of 565 psi.                                                                                                                         |
| BOT CHORD        | Rigid ceiling directly applied or 8-3-15 oc bracing.                                                                                |                                            | 7) Refer to girder(s) for truss to truss connections.                                                                                                                                                 |
| <b>REACTIONS</b> |                                                                                                                                     | (size) 8= Mechanical, 13=0-5-8             | 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 219 lb uplift at joint 8.                                                                              |
|                  | Max Horiz 13=67 (LC 9)                                                                                                              |                                            |                                                                                                                                                                                                       |
|                  | Max Uplift 8=219 (LC 9), 13=289 (LC 8)                                                                                              |                                            |                                                                                                                                                                                                       |
|                  | Max Grav 8=702 (LC 1), 13=820 (LC 1)                                                                                                |                                            | 9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.          |
| <b>FORCES</b>    |                                                                                                                                     | (lb) - Maximum Compression/Maximum Tension |                                                                                                                                                                                                       |
| TOP CHORD        | 1-2=0/35, 2-3=-998/516, 3-4=-1416/753, 4-5=-1416/753, 5-6=-926/461, 6-7=-746/383, 7-8=-662/363, 2-13=-774/507                       |                                            | 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.                                            |
| BOT CHORD        | 12-13=-144/119, 11-12=-503/918, 10-11=-490/896, 9-10=-387/701, 8-9=-31/34                                                           |                                            | 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.                                                                      |
| WEBS             | 3-12=-106/128, 5-10=-161/141, 6-10=-169/351, 6-9=-585/300, 7-9=-489/932, 2-12=-452/904, 5-11=-316/592, 4-11=-321/249, 3-11=-275/566 |                                            | 12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.                                                                                                        |
|                  |                                                                                                                                     |                                            | 13) In the LOAD CASE(S) section, loads applied to the face                                                                                                                                            |

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)  
 Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
 Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
 exterior zone and C-C Exterior(2E) -1.5-0 to 2-11-4,  
 Exterior(2R) 2-11-4 to 7-11-4, Interior (1) 7-11-4 to  
 11-3-4, Exterior(2E) 11-3-4 to 12-3-4, Interior (1) 12-3-4  
 to 13-10-0 zone; cantilever left and right exposed ; end  
 vertical left and right exposed; C-C for members and  
 forces & MWFRS for reactions shown; Lumber  
 DOL=1.60 plate grip DOL=1.60

1) Dead + Roof Live (balanced): Lumber Increase=1.15,  
Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-6=-70, 6-7=-70,  
8-13=-20  
Concentrated Loads (lb)  
Vert: 9=-74 (B), 18=-74 (B), 19=-8 (B), 20=-8 (B),  
21=-8 (B), 22=-8 (B)



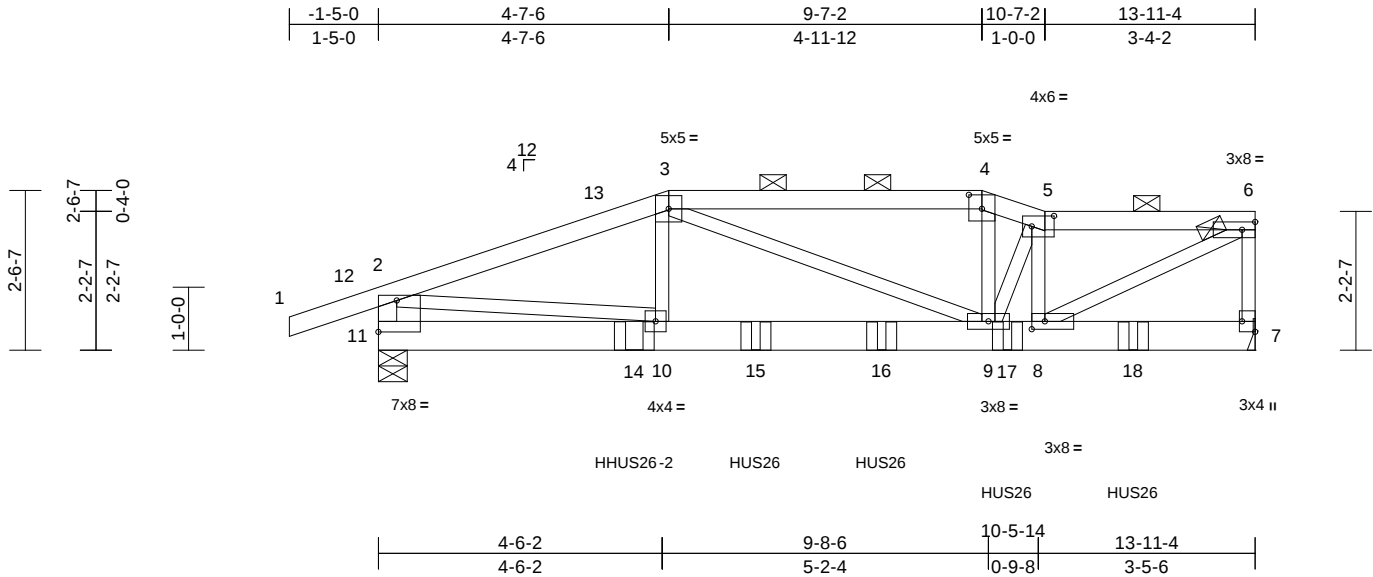
09/22/2025

|                  |       |                     |     |     |                          |
|------------------|-------|---------------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type          | Qty | Ply | Job Reference (optional) |
| Sunflower Modern | C04   | Roof Special Girder | 1   | 2   | I74482560                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:57  
ID:hcNYYGARUTPXvYjuzV5XCz7HqU-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrcDoi7J4zJC?r

Page: 1



Scale = 1:36.6

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

| Loading     | (psf) | Spacing         | 1-10-0          | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.32 | Vert(LL) | -0.07 | 9-10  | >999   | 240 | MT20           | 197/144  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.56 | Vert(CT) | -0.12 | 9-10  | >999   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.59 | Horz(CT) | 0.01  | 7     | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |       |        |     | Weight: 133 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 7= Mechanical, 11=0-5-8  
Max Horiz 11=83 (LC 9)  
Max Uplift 7=-481 (LC 9), 11=-470 (LC 8)  
Max Grav 7=2056 (LC 1), 11=1819 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/32, 2-3=-3370/1048, 3-4=-3244/1011, 4-5=-3435/1039, 5-6=-3086/935, 6-7=-1782/600, 2-11=-1738/687  
BOT CHORD 10-11=-358/488, 9-10=-1059/3106, 8-9=-946/2990, 7-8=-49/66  
WEBS 3-10=-145/750, 3-9=-39/229, 4-9=-167/786, 5-9=-211/728, 5-8=-1693/568, 6-8=-1059/3442, 2-10=-754/2684

#### NOTES

- 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, 2x3 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
- 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.

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 4-7-6, Exterior(2E) 4-7-6 to 10-7-2, Interior (1) 10-7-2 to 13-10-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 11 SPF No.2 crushing capacity of 425 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 481 lb uplift at joint 7.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 4-0-13 from the left end to connect truss(es) to front face of bottom chord.

- Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 6-0-0 from the left end to 12-0-0 to connect truss(es) to front face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
- LOAD CASE(S)** Standard
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-64, 2-3=-64, 3-4=-64, 4-5=-64, 5-6=-64, 7-11=-18  
Concentrated Loads (lb)  
Vert: 14=-604 (F), 15=-483 (F), 16=-526 (F), 17=-534 (F), 18=-497 (F)



June 26, 2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
18023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

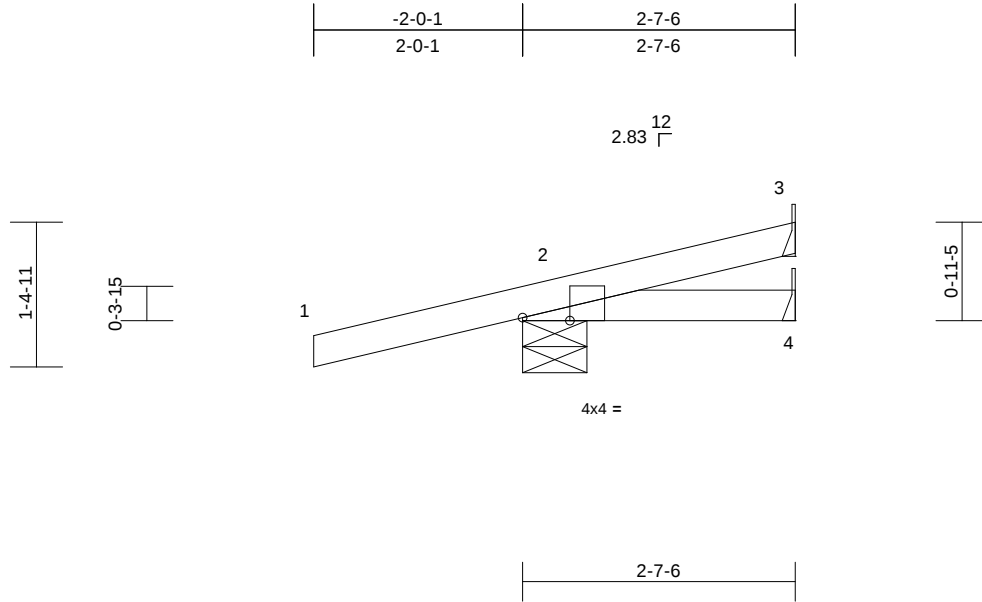
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply |                          |
| Sunflower Modern | CJ1   | Jack-Open  | 3   | 1   | Job Reference (optional) |
|                  |       |            |     |     | I74482561                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:57

Page: 1

ID:arBBSFclbmGJfU5Z\_G5kznzeD92-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



|                                      |       |                 |                 |            |      |             |      |       |        |     |                        |
|--------------------------------------|-------|-----------------|-----------------|------------|------|-------------|------|-------|--------|-----|------------------------|
| Scale = 1:22.1                       |       |                 |                 |            |      |             |      |       |        |     |                        |
| Plate Offsets (X, Y): [2:0-5-7,Edge] |       |                 |                 |            |      |             |      |       |        |     |                        |
| <b>Loading</b>                       | (psf) | <b>Spacing</b>  | 2-0-0           | <b>CSI</b> |      | <b>DEFL</b> | in   | (loc) | l/defl | L/d | <b>PLATES</b>          |
| TCLL (roof)                          | 25.0  | Plate Grip DOL  | 1.15            | TC         | 0.62 | Vert(LL)    | 0.00 | 2-4   | >999   | 240 | <b>GRIP</b>            |
| TCDL                                 | 10.0  | Lumber DOL      | 1.15            | BC         | 0.06 | Vert(CT)    | 0.00 | 2-4   | >999   | 180 | MT20                   |
| BCLL                                 | 0.0*  | Rep Stress Incr | NO              | WB         | 0.00 | Horz(CT)    | 0.00 | 3     | n/a    | n/a | 244/190                |
| BCDL                                 | 10.0  | Code            | IRC2018/TPI2014 | Matrix-P   |      |             |      |       |        |     | Weight: 11 lb FT = 20% |

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

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

**REACTIONS** (size) 2=0-7-6, 3= Mechanical, 4= Mechanical  
Max Horiz 2=53 (LC 8)  
Max Uplift 2=-182 (LC 8), 3=-8 (LC 13)  
Max Grav 2=346 (LC 1), 3=18 (LC 8), 4=45 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-3=-44/17  
BOT CHORD 2-4=0/0

- NOTES**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 4) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
  - 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 3.
- 7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

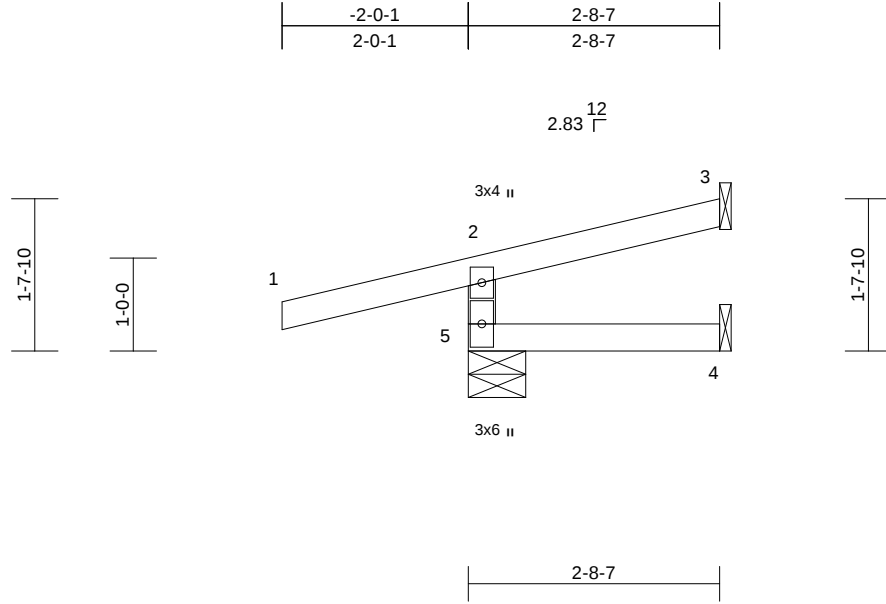
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply |                          |
| Sunflower Modern | CJ02  | Jack-Open  | 2   | 1   | 174482562                |
|                  |       |            |     |     | Job Reference (optional) |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:57

Page: 1

ID:B20vsS3NPLsGVEHwG3RjVOZeDLN-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?



Scale = 1:24.8

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP                   |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|------------------------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.54 | Vert(LL) | 0.00  | 4-5    | >999 | 240    | MT20                   |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.10 | Vert(CT) | 0.00  | 4-5    | >999 | 180    | 244/190                |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.00 | Horz(CT) | 0.01  | 3      | n/a  | n/a    |                        |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-R |      |          |       |        |      |        | Weight: 12 lb FT = 20% |

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 3= Mechanical, 4= Mechanical, 5=0-7-6  
Max Horiz 5=44 (LC 9)  
Max Uplift 3=-27 (LC 12), 5=-152 (LC 8)  
Max Grav 3=40 (LC 1), 4=41 (LC 3), 5=328 (LC 1)

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

TOP CHORD 2-5=-285/420, 1-2=0/35, 2-3=-31/14  
BOT CHORD 4-5=0/0

#### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 3.
  - 7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

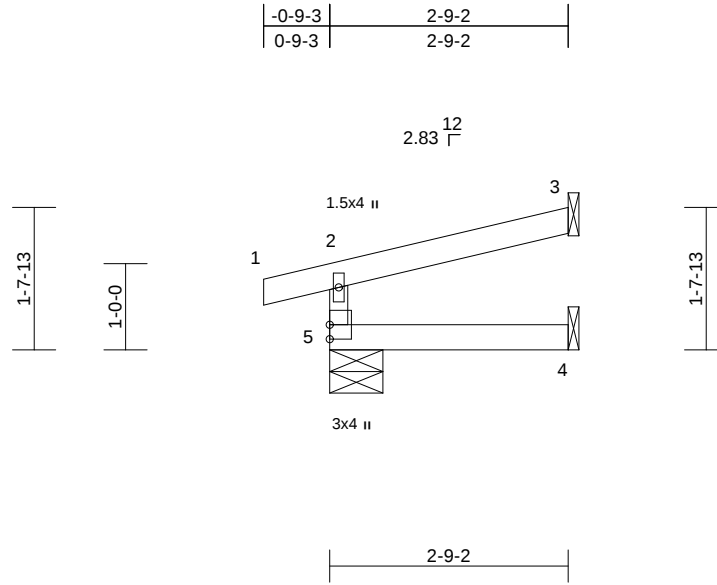
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply |                          |
| Sunflower Modern | CJ03  | Jack-Open  | 2   | 1   | Job Reference (optional) |
|                  |       |            |     |     | I74482563                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:57

Page: 1

ID:CFLd4WwsxGnoTg8BEEJWeHzeDQj-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?7



|                |       |                 |                 |            |      |             |       |       |        |     |               |             |
|----------------|-------|-----------------|-----------------|------------|------|-------------|-------|-------|--------|-----|---------------|-------------|
| <b>Loading</b> | (psf) | <b>Spacing</b>  | 2-0-0           | <b>CSI</b> |      | <b>DEFL</b> | in    | (loc) | l/defl | L/d | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof)    | 25.0  | Plate Grip DOL  | 1.15            | TC         | 0.17 | Vert(LL)    | 0.00  | 4-5   | >999   | 240 | MT20          | 197/144     |
| TCDL           | 10.0  | Lumber DOL      | 1.15            | BC         | 0.09 | Vert(CT)    | 0.00  | 4-5   | >999   | 180 |               |             |
| BCLL           | 0.0*  | Rep Stress Incr | NO              | WB         | 0.00 | Horz(CT)    | -0.01 | 3     | n/a    | n/a |               |             |
| BCDL           | 10.0  | Code            | IRC2018/TPI2014 | Matrix-R   |      |             |       |       |        |     | Weight: 10 lb | FT = 20%    |

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 3= Mechanical, 4= Mechanical, 5=0-7-6  
Max Horiz 5=38 (LC 9)  
Max Uplift 3=-42 (LC 12), 5=-61 (LC 8)  
Max Grav 3=79 (LC 1), 4=50 (LC 3), 5=188 (LC 1)

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

TOP CHORD 2-5=-163/216, 1-2=0/14, 2-3=-32/15  
BOT CHORD 4-5=0/0

#### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 3.
  - 7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



June 26, 2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

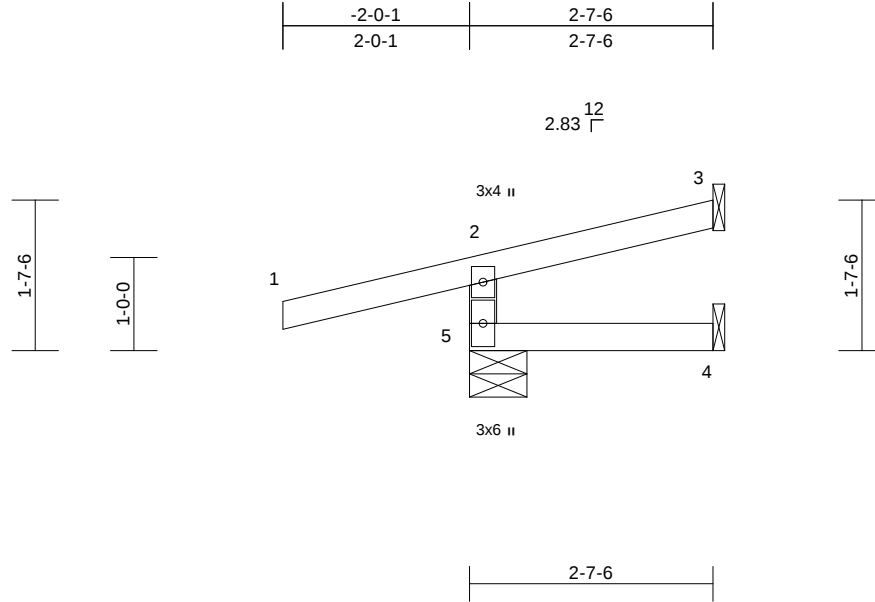
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply |                          |
| Sunflower Modern | CJ04  | Jack-Open  | 3   | 1   | 174482564                |
|                  |       |            |     |     | Job Reference (optional) |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:57

Page: 1

ID:wv14XGEnRkvU\_zOfJK2?MkzeDAq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



|                |       |                 |                 |            |      |             |      |       |        |     |               |             |
|----------------|-------|-----------------|-----------------|------------|------|-------------|------|-------|--------|-----|---------------|-------------|
| Scale = 1:24.7 |       |                 |                 |            |      |             |      |       |        |     |               |             |
| <b>Loading</b> | (psf) | <b>Spacing</b>  | 2-0-0           | <b>CSI</b> |      | <b>DEFL</b> | in   | (loc) | l/defl | L/d | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof)    | 25.0  | Plate Grip DOL  | 1.15            | TC         | 0.54 | Vert(LL)    | 0.00 | 4-5   | >999   | 240 | MT20          | 244/190     |
| TCDL           | 10.0  | Lumber DOL      | 1.15            | BC         | 0.10 | Vert(CT)    | 0.00 | 4-5   | >999   | 180 |               |             |
| BCLL           | 0.0*  | Rep Stress Incr | NO              | WB         | 0.00 | Horz(CT)    | 0.01 | 3     | n/a    | n/a |               |             |
| BCDL           | 10.0  | Code            | IRC2018/TPI2014 | Matrix-R   |      |             |      |       |        |     | Weight: 12 lb | FT = 20%    |

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 3= Mechanical, 4= Mechanical, 5=0-7-6  
Max Horiz 5=44 (LC 9)  
Max Uplift 3=-25 (LC 12), 5=-153 (LC 8)  
Max Grav 3=35 (LC 1), 4=39 (LC 3), 5=326 (LC 1)

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

TOP CHORD 2-5=-284/419, 1-2=0/35, 2-3=-31/14  
BOT CHORD 4-5=0/0

#### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 3.
- 7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 26, 2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

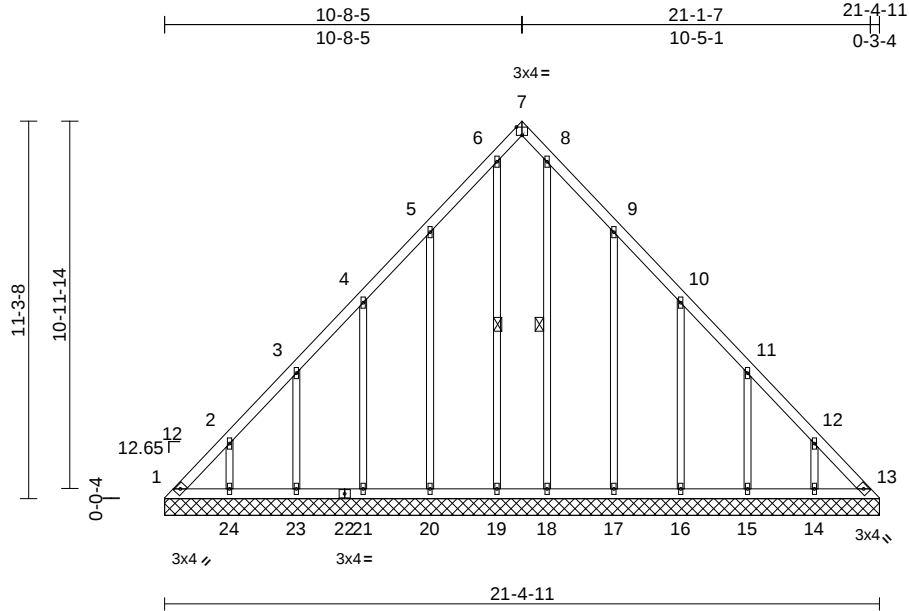
|                  |       |              |     |     |                          |
|------------------|-------|--------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type   | Qty | Ply |                          |
| Sunflower Modern | HG1   | Lay-In Gable | 1   | 1   | Job Reference (optional) |
|                  |       |              |     |     | I74482565                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:57

Page: 1

ID:4aaBILsmFzqQEJMvBas7szeC6t-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f



Scale = 1:68.9

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

| Loading                 | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP    |
|-------------------------|-------|-----------------|-----------------|----------|------|-----------|-------|--------|-----|--------|---------|
| TCLL (roof)             | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.14 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20    |
| TCDL                    | 10.0  | Lumber DOL      | 1.15            | BC       | 0.07 | Vert(TL)  | n/a   | -      | n/a | 999    | 244/190 |
| BCLL                    | 0.0*  | Rep Stress Incr | NO              | WB       | 0.32 | Horiz(TL) | 0.01  | 13     | n/a | n/a    |         |
| BCDL                    | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |           |       |        |     |        |         |
| Weight: 123 lb FT = 20% |       |                 |                 |          |      |           |       |        |     |        |         |

#### LUMBER

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

#### BRACING

|           |                                                                 |
|-----------|-----------------------------------------------------------------|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| WEBS      | 1 Row at midpt 6-19, 8-18                                       |

|                  |                                                                                                                                                                                               |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REACTIONS (size) | 1=21-4-11, 13=21-4-11, 14=21-4-11, 15=21-4-11, 16=21-4-11, 17=21-4-11, 18=21-4-11, 19=21-4-11, 20=21-4-11, 21=21-4-11, 23=21-4-11, 24=21-4-11                                                 |
| Max Horiz        | 1=310 (LC 9)                                                                                                                                                                                  |
| Max Uplift       | 1=-146 (LC 10), 13=-109 (LC 11), 14=-137 (LC 13), 15=-137 (LC 13), 16=-134 (LC 13), 17=-162 (LC 13), 19=-17 (LC 9), 20=-159 (LC 12), 21=-133 (LC 12), 23=-137 (LC 12), 24=-137 (LC 12)        |
| Max Grav         | 1=344 (LC 12), 13=319 (LC 13), 14=208 (LC 20), 15=207 (LC 20), 16=205 (LC 20), 17=219 (LC 20), 18=137 (LC 21), 19=160 (LC 19), 20=213 (LC 19), 21=207 (LC 19), 23=206 (LC 19), 24=207 (LC 19) |

#### FORCES

|           |                                                                                                                                                                            |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TOP CHORD | (lb) - Maximum Compression/Maximum Tension                                                                                                                                 |
|           | 1-2=-491/328, 2-3=-365/228, 3-4=-230/164, 4-5=-144/115, 5-6=-130/150, 6-7=-101/96, 7-8=-101/93, 8-9=-130/118, 9-10=-106/64, 10-11=-197/123, 11-12=-332/228, 12-13=-457/328 |

|           |                                                                                                                                                                               |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BOT CHORD | 1-24=-240/342, 23-24=-240/342, 21-23=-240/342, 20-21=-240/342, 19-20=-240/342, 18-19=-240/342, 17-18=-240/342, 16-17=-240/342, 15-16=-240/342, 14-15=-240/342, 13-14=-240/342 |
| WEBS      | 2-24=-178/154, 3-23=-185/162, 4-21=-180/157, 5-20=-207/183, 6-19=-125/38, 8-18=-103/0, 9-17=-207/187, 10-16=-180/157, 11-15=-185/162, 12-14=-178/154                          |

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-1 to 5-4-1, Interior (1) 5-4-1 to 10-8-9, Exterior(2R) 10-8-9 to 15-5-9, Interior (1) 15-5-9 to 21-1-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 146 lb uplift at joint 1, 109 lb uplift at joint 13, 137 lb uplift at joint 24, 137 lb uplift at joint 23, 133 lb uplift at joint 21, 159 lb uplift at joint 20, 17 lb uplift at joint 19, 162 lb uplift at joint 17, 134 lb uplift at joint 16, 137 lb uplift at joint 15 and 137 lb uplift at joint 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

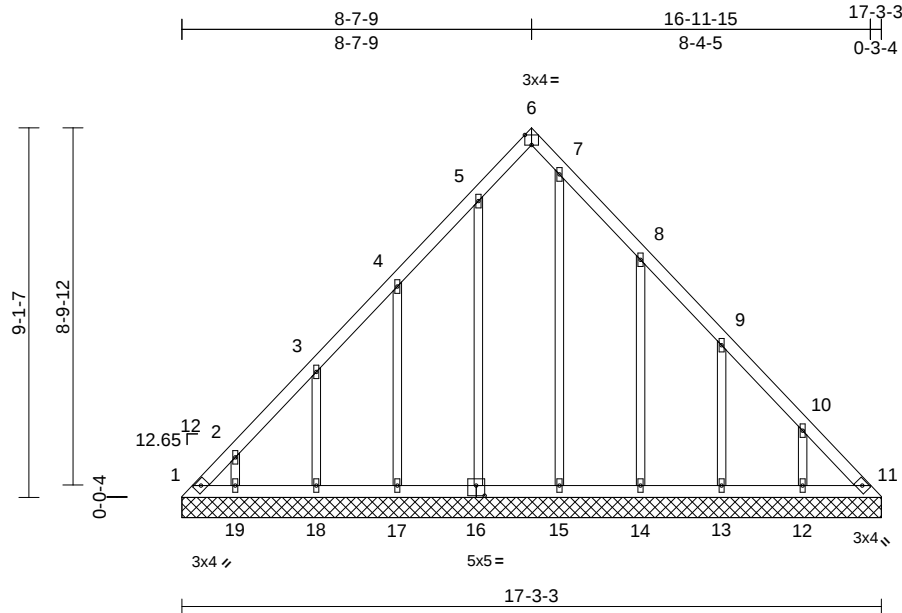
|                  |       |              |     |     |                          |
|------------------|-------|--------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type   | Qty | Ply |                          |
| Sunflower Modern | HG2   | Lay-In Gable | 1   | 1   | Job Reference (optional) |
|                  |       |              |     |     | I74482566                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:57

Page: 1

ID:gPh1qn6iV4GvAb\_S\_4fh9zeBhR-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:56.9

Plate Offsets (X, Y): [6:Edge,0-3-0], [16:0-2-8,0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in        | (loc) | l/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|-----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.10 | Vert(LL)  | n/a   | -      | n/a | 999           | MT20     |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.06 | Vert(TL)  | n/a   | -      | n/a | 999           | 244/190  |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.20 | Horiz(TL) | 0.01  | 11     | n/a | n/a           |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |           |       |        |     |               |          |
|             |       |                 |                 |          |      |           |       |        |     | Weight: 90 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

|            |        |                                                                                                                                                              |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REACTIONS  | (size) | 1=17-3-3, 11=17-3-3, 12=17-3-3, 13=17-3-3, 14=17-3-3, 15=17-3-3, 16=17-3-3, 17=17-3-3, 18=17-3-3, 19=17-3-3                                                  |
| Max Horiz  |        | 1=248 (LC 9)                                                                                                                                                 |
| Max Uplift |        | 1=-127 (LC 10), 11=-85 (LC 11), 12=-138 (LC 13), 13=-132 (LC 13), 14=-164 (LC 13), 16=-74 (LC 12), 17=-150 (LC 12), 18=-137 (LC 12), 19=-117 (LC 12)         |
| Max Grav   |        | 1=306 (LC 12), 11=271 (LC 13), 12=208 (LC 20), 13=205 (LC 20), 14=216 (LC 20), 15=147 (LC 1), 16=181 (LC 19), 17=215 (LC 19), 18=210 (LC 19), 19=177 (LC 19) |

#### FORCES

|           |                                                                                                                                       |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------|
|           | (lb) - Maximum Compression/Maximum Tension                                                                                            |
| TOP CHORD | 1-2=-427/305, 2-3=-321/219, 3-4=-187/115, 4-5=-118/67, 5-6=-89/75, 6-7=-70/54, 7-8=-93/66, 8-9=-139/80, 9-10=-264/182, 10-11=-391/286 |
| BOT CHORD | 1-19=-213/296, 18-19=-213/296, 17-18=-213/296, 15-17=-213/296, 14-15=-212/296, 13-14=-212/296, 12-13=-212/296, 11-12=-212/296         |
| WEBS      | 2-19=-158/134, 3-18=-190/162, 4-17=-207/177, 5-16=-149/93, 7-15=-101/6, 8-14=-213/187, 9-13=-185/157, 10-12=-184/155                  |

#### 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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-1 to 5-4-1, Interior (1) 5-4-1 to 8-7-13, Exterior(2R) 8-7-13 to 13-7-13, Interior (1) 13-7-13 to 16-11-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) N/A
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 26, 2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcscomponents.com](http://www.sbcscomponents.com))

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

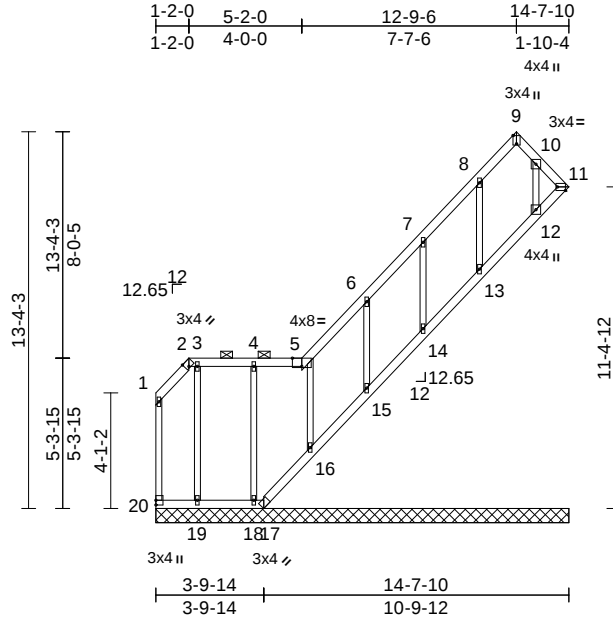
|                  |       |              |     |     |                          |
|------------------|-------|--------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type   | Qty | Ply |                          |
| Sunflower Modern | HG3   | Lay-In Gable | 1   | 1   | Job Reference (optional) |
|                  |       |              |     |     | I74482567                |

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

Run: 8.63 E Sep 26 2024 Print: 8.630 E Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 15:49:26

Page: 1

ID:YZosHd0vTL2lu14QAkEIWBzeC1W-7\_o8BVNONbTc24xCs0Vdv6PLfESFc507nwsX8Lz2Moe



Scale = 1:81.7

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in        | (loc) | l/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|-----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.50 | Vert(LL)  | n/a   | -      | 999 | MT20          | 197/144  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.14 | Vert(TL)  | n/a   | -      | 999 |               |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.16 | Horiz(TL) | -0.02 | 11     | n/a |               |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |           |       |        |     | Weight: 82 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

#### REACTIONS

|                       |                                                                                                                                                          |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| All bearings 14-7-10. |                                                                                                                                                          |
| (lb) - Max Horiz      | 20=321 (LC 9)                                                                                                                                            |
| Max Uplift            | All uplift 100 (lb) or less at joint(s) 18, 19, 20 except 11=848 (LC 12), 12=348 (LC 10), 14=202 (LC 12), 15=136 (LC 12), 16=143 (LC 12), 17=223 (LC 10) |
| Max Grav              | All reactions 250 (lb) or less at joint (s) 13, 14, 15, 16, 18, 19, 20 except 11=549 (LC 10), 12=671 (LC 12), 17=343 (LC 12)                             |

#### FORCES

|                                                                              |                                                                                                                                                |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. |                                                                                                                                                |
| TOP CHORD                                                                    | 6-7=-312/338, 7-8=-469/513, 8-9=-389/417, 10-11=-640/713                                                                                       |
| BOT CHORD                                                                    | 19-20=-367/336, 18-19=-367/336, 17-18=-367/336, 16-17=-546/510, 15-16=-510/467, 14-15=-509/466, 13-14=-509/465, 12-13=-512/466, 11-12=-486/436 |
| WEBS                                                                         | 5-16=-266/234, 7-14=-257/224, 10-12=-782/651                                                                                                   |

#### NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-4 to 5-2-0, Interior (1) 5-2-0 to 12-9-6, Exterior(2E) 12-9-6 to 14-5-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 19, 18 except (jt=lb) 11=848, 17=223, 16=142, 15=135, 14=201, 12=347.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 11, 16, 15, 14, 13, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 26,2025

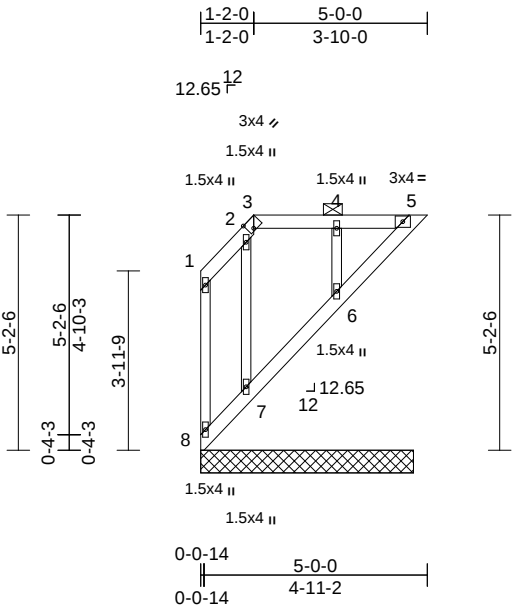
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcscomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
 AS NOTED FOR PLAN REVIEW  
 DEVELOPMENT SERVICES  
 18023 Swingley Ridge Rd.  
 Chesterfield, MO 63015  
 314.434.1200 / MiTek-US.com

09/22/2025

|                          |       |              |     |     |           |
|--------------------------|-------|--------------|-----|-----|-----------|
| Job                      | Truss | Truss Type   | Qty | Ply |           |
| Sunflower Modern         | HG4   | Lay-In Gable | 1   | 1   |           |
| Job Reference (optional) |       |              |     |     | I74482568 |



|                                      |       |                 |                 |            |      |             |      |       |                        |
|--------------------------------------|-------|-----------------|-----------------|------------|------|-------------|------|-------|------------------------|
| Scale = 1:50.9                       |       |                 |                 |            |      |             |      |       |                        |
| Plate Offsets (X, Y): [3:0-1-7,Edge] |       |                 |                 |            |      |             |      |       |                        |
| <b>Loading</b>                       | (psf) | <b>Spacing</b>  | 2-0-0           | <b>CSI</b> |      | <b>DEFL</b> | in   | (loc) | <b>PLATES</b>          |
| TCLL (roof)                          | 25.0  | Plate Grip DOL  | 1.15            | TC         | 0.19 | Vert(LL)    | n/a  | -     | <b>GRIP</b>            |
| TCDL                                 | 10.0  | Lumber DOL      | 1.15            | BC         | 0.08 | Vert(TL)    | n/a  | -     | 197/144                |
| BCLL                                 | 0.0*  | Rep Stress Incr | NO              | WB         | 0.05 | Horiz(TL)   | 0.00 | 5     |                        |
| BCDL                                 | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S   |      |             |      |       | Weight: 26 lb FT = 20% |

|                                            |                                                                                                                  |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>LUMBER</b>                              |                                                                                                                  |
| TOP CHORD                                  | 2x4 SP No.2                                                                                                      |
| BOT CHORD                                  | 2x4 SP No.2                                                                                                      |
| WEBS                                       | 2x3 SPF No.2                                                                                                     |
| OTHERS                                     | 2x3 SPF No.2                                                                                                     |
| <b>BRACING</b>                             |                                                                                                                  |
| TOP CHORD                                  | Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-5. |
| BOT CHORD                                  | Rigid ceiling directly applied or 6-0-0 oc bracing.                                                              |
| <b>REACTIONS</b>                           |                                                                                                                  |
| (size)                                     | 5=4-8-6, 6=4-8-6, 7=4-8-6, 8=4-8-6                                                                               |
| Max Horiz                                  | 8=-129 (LC 10)                                                                                                   |
| Max Uplift                                 | 5=-89 (LC 9), 6=-50 (LC 8), 7=-27 (LC 8)                                                                         |
| Max Grav                                   | 5=93 (LC 19), 6=194 (LC 1), 7=137 (LC 1), 8=26 (LC 21)                                                           |
| <b>FORCES</b>                              |                                                                                                                  |
| (lb) - Maximum Compression/Maximum Tension |                                                                                                                  |
| TOP CHORD                                  | 1-8=-154/157, 1-2=-162/177, 2-3=-119/106, 3-4=-122/133, 4-5=-122/133                                             |
| BOT CHORD                                  | 7-8=-223/215, 6-7=-197/191, 5-6=-200/183                                                                         |
| WEBS                                       | 4-6=-150/72, 2-7=-154/101                                                                                        |

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 4) Provide adequate drainage to prevent water ponding.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Bearing at joint(s) 8, 5, 6, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 5, 50 lb uplift at joint 6 and 27 lb uplift at joint 7.
- 12) N/A
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

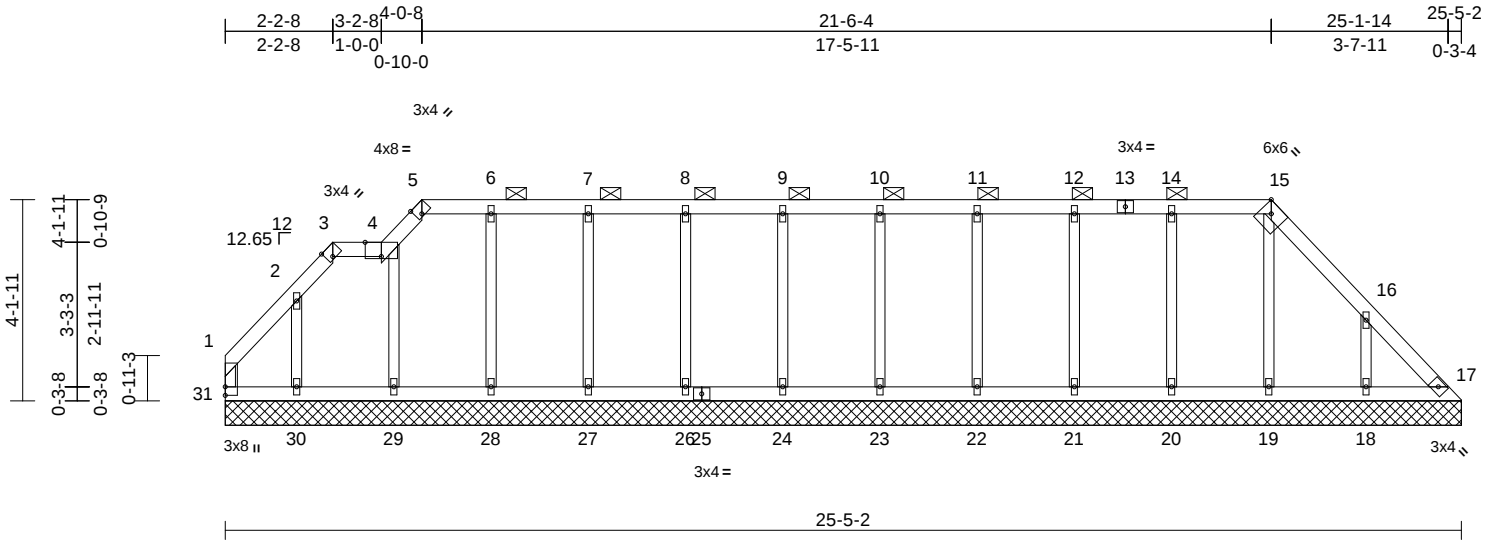
|                          |       |              |     |     |           |
|--------------------------|-------|--------------|-----|-----|-----------|
| Job                      | Truss | Truss Type   | Qty | Ply |           |
| Sunflower Modern         | HG5   | Lay-In Gable | 1   | 1   | 174482569 |
| Job Reference (optional) |       |              |     |     |           |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:58

Page: 1

ID:cCM\_nrH3wHlFpx?T\_fVjZyXoyz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:47.4

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

| Loading                 | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP    |
|-------------------------|-------|-----------------|-----------------|----------|------|-----------|-------|--------|-----|--------|---------|
| TCLL (roof)             | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.10 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20    |
| TCDL                    | 10.0  | Lumber DOL      | 1.15            | BC       | 0.04 | Vert(TL)  | n/a   | -      | n/a | 999    | 244/190 |
| BCLL                    | 0.0*  | Rep Stress Incr | NO              | WB       | 0.06 | Horiz(TL) | 0.00  | 17     | n/a | n/a    |         |
| BCDL                    | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |           |       |        |     |        |         |
| Weight: 112 lb FT = 20% |       |                 |                 |          |      |           |       |        |     |        |         |

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

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

**REACTIONS** (size)  
17=25-5-2, 18=25-5-2, 19=25-5-2, 20=25-5-2, 21=25-5-2, 22=25-5-2, 23=25-5-2, 24=25-5-2, 26=25-5-2, 27=25-5-2, 28=25-5-2, 29=25-5-2, 30=25-5-2, 31=25-5-2  
Max Horiz 31=121 (LC 8)  
Max Uplift 17=35 (LC 9), 18=148 (LC 13), 19=25 (LC 8), 20=48 (LC 9), 21=41 (LC 8), 22=36 (LC 9), 23=40 (LC 8), 24=39 (LC 9), 26=40 (LC 8), 27=41 (LC 9), 28=33 (LC 8), 29=26 (LC 12), 30=111 (LC 12), 31=34 (LC 8)  
Max Grav 17=100 (LC 19), 18=219 (LC 20), 19=145 (LC 26), 20=199 (LC 25), 21=183 (LC 1), 22=173 (LC 25), 23=181 (LC 1), 24=180 (LC 26), 26=179 (LC 25), 27=179 (LC 26), 28=192 (LC 25), 29=172 (LC 25), 30=160 (LC 19), 31=103 (LC 20)

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

**TOP CHORD** 1-31=80/28, 1-2=91/52, 2-3=85/64, 3-4=66/58, 4-5=98/82, 5-6=87/87, 6-7=87/87, 7-8=87/87, 8-9=87/87, 9-10=87/87, 10-11=87/87, 11-12=87/87, 12-14=87/87, 14-15=87/87, 15-16=97/90, 16-17=101/94  
**BOT CHORD** 30-31=66/94, 29-30=66/94, 28-29=66/96, 27-28=66/96, 26-27=66/96, 24-26=66/96, 23-24=66/96, 22-23=66/96, 21-22=66/96, 20-21=66/96, 19-20=66/96, 18-19=66/96, 17-18=66/96  
**WEBS** 2-30=115/113, 4-29=131/54, 6-28=152/57, 7-27=138/66, 8-26=141/63, 9-24=140/63, 10-23=142/64, 11-22=133/60, 12-21=143/65, 14-20=159/72, 15-19=106/50, 16-18=186/166

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-4 to 3-2-8, Interior (1) 3-2-8 to 4-0-8, Exterior(2R) 4-0-8 to 9-0-8, Interior (1) 9-0-8 to 21-6-4, Exterior(2E) 21-6-4 to 25-1-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- N/A
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

**Mitek**  
RELEASE FOR CONSTRUCTION  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Greer, SC 29615  
314.434.1200 / MiTek-US.com

09/22/2025

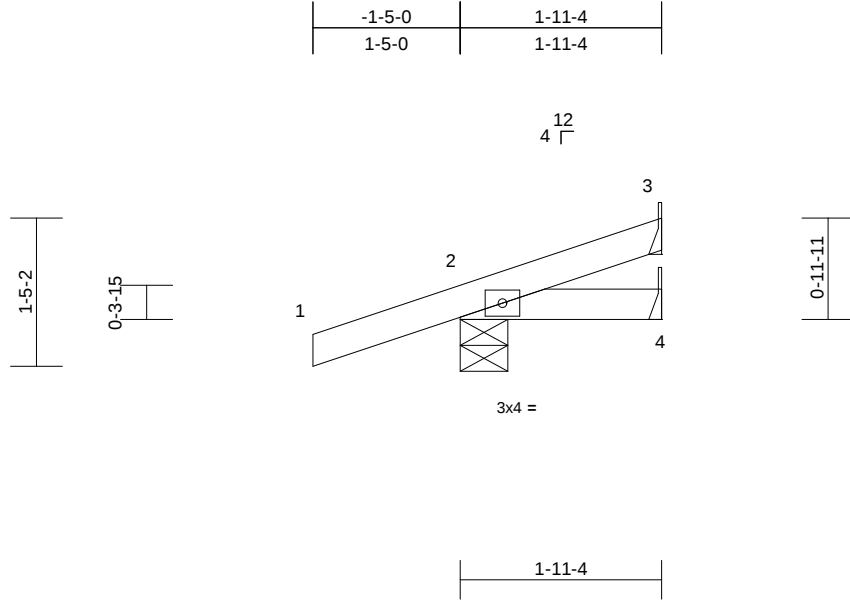
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply |                          |
| Sunflower Modern | J01   | Jack-Open  | 1   | 1   | 174482570                |
|                  |       |            |     |     | Job Reference (optional) |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:58

Page: 1

ID:6mrTrCbDvjil7jv04wNqEzeCPI-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f



Scale = 1:22.2

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in   | (loc) | l/defl | L/d | PLATES       | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|------|-------|--------|-----|--------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.20 | Vert(LL) | 0.00 | 2-4   | >999   | 240 | MT20         | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.04 | Vert(CT) | 0.00 | 2-4   | >999   | 180 |              |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.00 | Horz(CT) | 0.00 | 3     | n/a    | n/a |              |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-P |      |          |      |       |        |     | Weight: 8 lb | FT = 20% |

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 1-11-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-5-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=55 (LC 8)  
Max Uplift 2=-110 (LC 8), 3=-19 (LC 12)  
Max Grav 2=227 (LC 1), 3=26 (LC 1), 4=38 (LC 3)

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

TOP CHORD 1-2=0/30, 2-3=-35/17  
BOT CHORD 2-4=0/0

#### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 3.

- 7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



June 26,2025

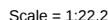
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:58 Page: 1  
ID:6mrTrCbDvjil7iv04wNqEzeCPI-RfC?PsB70Hg3NSqPanL8w3uITXbGKWkRCDoi7J4zJC?f



## LUMBER

7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

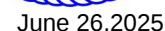
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

TOP CHORD 1-2=0/30, 2-3=-35/17  
BOT CHORD 2-4=0/0

## NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
exterior zone and C-C Exterior(2E) zone; cantilever left  
and right exposed ; end vertical left and right  
exposed; C-C for members and forces & MWFRS for  
reactions shown; Lumber DOL=1.60 plate grip  
DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- 4) Bearings are assumed to be: , Joint 2 SP No.2 crushing  
capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 19 lb uplift at joint  
3



 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE**

**WARNING - verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-1473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcsccomponents.com](http://www.sbcsccomponents.com))

**RELEASE FOR CONSTRUCTION**  
**AS NOTED FOR PLAN REVIEW**  
**DEVELOPMENT SERVICES**  
16023 Swingle Ridge Rd.  
Chesterfield, MO 63017  
314 434 1200 / Mitek-LLS.com

09/22/2025

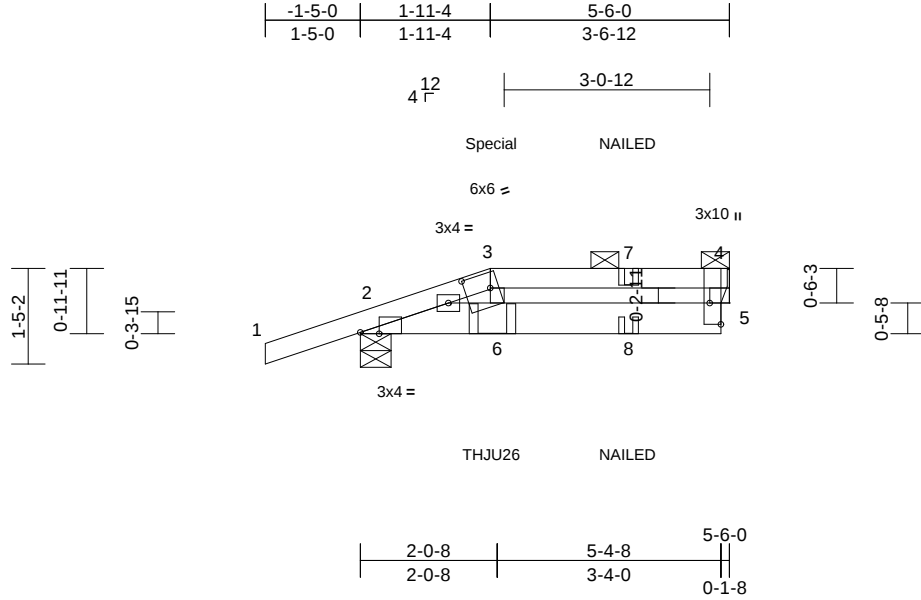
|                  |       |                 |     |     |                          |
|------------------|-------|-----------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type      | Qty | Ply |                          |
| Sunflower Modern | J03   | Half Hip Girder | 2   | 1   | Job Reference (optional) |
|                  |       |                 |     |     | I74482572                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:58

Page: 1

ID:6mrTrCbDvjil7jv04wNqEzeCPI-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f



Scale = 1:34.3

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|---------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.26 | Vert(LL) | -0.01 | 6      | >999 | 240           | MT20     |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.12 | Vert(CT) | -0.01 | 5-6    | >999 | 180           | 197/144  |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.02 | Horz(CT) | 0.00  | 5      | n/a  | n/a           |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-S |      |          |       |        |      |               |          |
|             |       |                 |                 |          |      |          |       |        |      | Weight: 21 lb | FT = 20% |

#### LUMBER

|           |                                       |
|-----------|---------------------------------------|
| TOP CHORD | 2x4 SP No.2                           |
| BOT CHORD | 2x6 SPF No.2                          |
| WEBS      | 2x4 SP No.2 *Except* 6-3:2x3 SPF No.2 |

#### BRACING

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

#### REACTIONS

|            |                             |
|------------|-----------------------------|
| (size)     | 2=0-5-8, 5= Mechanical      |
| Max Horiz  | 2=43 (LC 8)                 |
| Max Uplift | 2=-115 (LC 8), 5=-35 (LC 9) |
| Max Grav   | 2=347 (LC 1), 5=205 (LC 1)  |

#### FORCES

|                                            |                                                  |
|--------------------------------------------|--------------------------------------------------|
| (lb) - Maximum Compression/Maximum Tension |                                                  |
| TOP CHORD                                  | 1-2=0/35, 2-3=-218/55, 3-4=-174/61, 4-5=-130/145 |
| BOT CHORD                                  | 2-6=-93/185, 5-6=-78/173                         |
| WEBS                                       | 3-6=-69/87                                       |

#### NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 2 SPF No.2 crushing capacity of 425 psi.

- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 5.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie THJU26 (SGL & SGL SHORT RC 1-PLY) or equivalent at 1-11-10 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 165 lb down and 104 lb up at 1-11-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-70, 3-4=-70, 2-5=-20  
Concentrated Loads (lb)  
Vert: 3=30 (B), 6=-2 (B), 8=-2 (B)



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

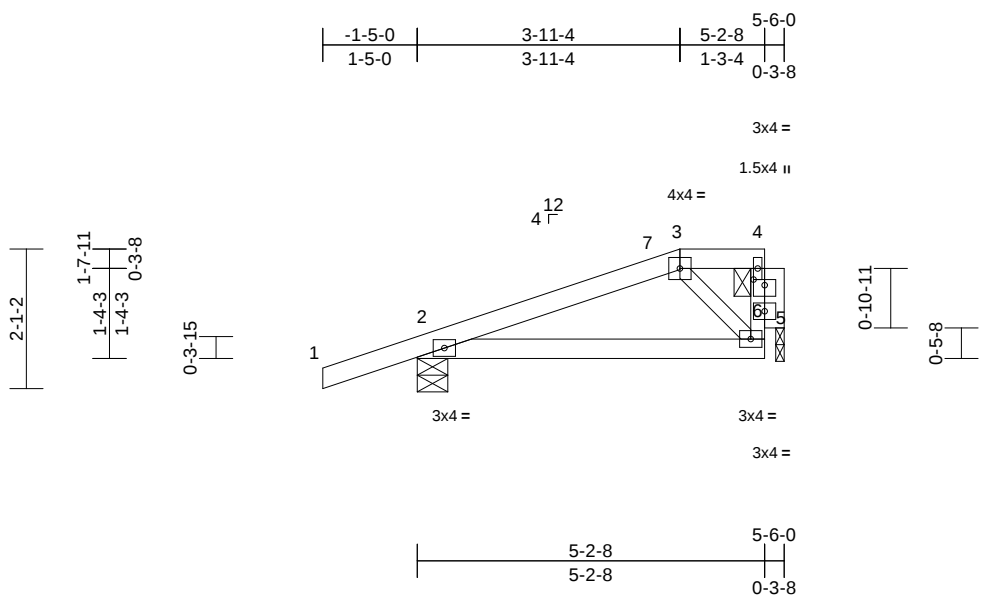
09/22/2025

|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply | Job Reference (optional) |
| Sunflower Modern | J04   | Half Hip   | 1   | 1   | I74482573                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:58  
ID:juQculca1K?qo\_?lfQY6SzeCMh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



|                                       |       |                 |                 |            |      |             |               |       |        |
|---------------------------------------|-------|-----------------|-----------------|------------|------|-------------|---------------|-------|--------|
| Scale = 1:34.5                        |       |                 |                 |            |      |             |               |       |        |
| Plate Offsets (X, Y): [4:0-2-0,0-1-0] |       |                 |                 |            |      |             |               |       |        |
| <b>Loading</b>                        | (psf) | <b>Spacing</b>  | 2-0-0           | <b>CSI</b> |      | <b>DEFL</b> | in            | (loc) | l/defl |
| TCLL (roof)                           | 25.0  | Plate Grip DOL  | 1.15            | TC         | 0.26 | Vert(LL)    | -0.03         | 2-5   | >999   |
| TCDL                                  | 10.0  | Lumber DOL      | 1.15            | BC         | 0.33 | Vert(CT)    | -0.07         | 2-5   | >863   |
| BCLL                                  | 0.0*  | Rep Stress Incr | NO              | WB         | 0.04 | Horz(CT)    | 0.00          | 6     | n/a    |
| BCDL                                  | 10.0  | Code            | IRC2018/TPI2014 | Matrix-P   |      |             |               |       | n/a    |
|                                       |       |                 |                 |            |      |             | Weight: 22 lb |       |        |
|                                       |       |                 |                 |            |      |             | FT = 20%      |       |        |

|                                            |                                                                                                                  |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>LUMBER</b>                              |                                                                                                                  |
| TOP CHORD                                  | 2x4 SP No.2                                                                                                      |
| BOT CHORD                                  | 2x4 SP No.2                                                                                                      |
| WEBS                                       | 2x3 SPF No.2                                                                                                     |
| OTHERS                                     | 2x4 SP No.2                                                                                                      |
| <b>BRACING</b>                             |                                                                                                                  |
| TOP CHORD                                  | Structural wood sheathing directly applied or 5-6-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4. |
| BOT CHORD                                  | Rigid ceiling directly applied or 10-0-0 oc bracing.                                                             |
| <b>REACTIONS</b>                           |                                                                                                                  |
| (size)                                     | 2=0-5-8, 6=0-1-8                                                                                                 |
| Max Horiz                                  | 2=75 (LC 9)                                                                                                      |
| Max Uplift                                 | 2=-134 (LC 8), 6=-38 (LC 8)                                                                                      |
| Max Grav                                   | 2=354 (LC 1), 6=200 (LC 1)                                                                                       |
| <b>FORCES</b>                              |                                                                                                                  |
| (lb) - Maximum Compression/Maximum Tension |                                                                                                                  |
| TOP CHORD                                  | 1-2=0/30, 2-3=-155/104, 3-4=-37/44, 5-6=-96/148, 4-6=-52/65                                                      |
| BOT CHORD                                  | 2-5=-136/114                                                                                                     |
| WEBS                                       | 3-5=-131/165                                                                                                     |

- NOTES**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 3-11-4, Exterior(2E) 3-11-4 to 5-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 6) Bearing at joint(s) 6 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 at joint(s) 6.
- 8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION

**Mitek**

AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

16023 Swingley Ridge Rd.

Chesterfield, MO 63015

314.434.1200 / MiTek-US.com

09/22/2025

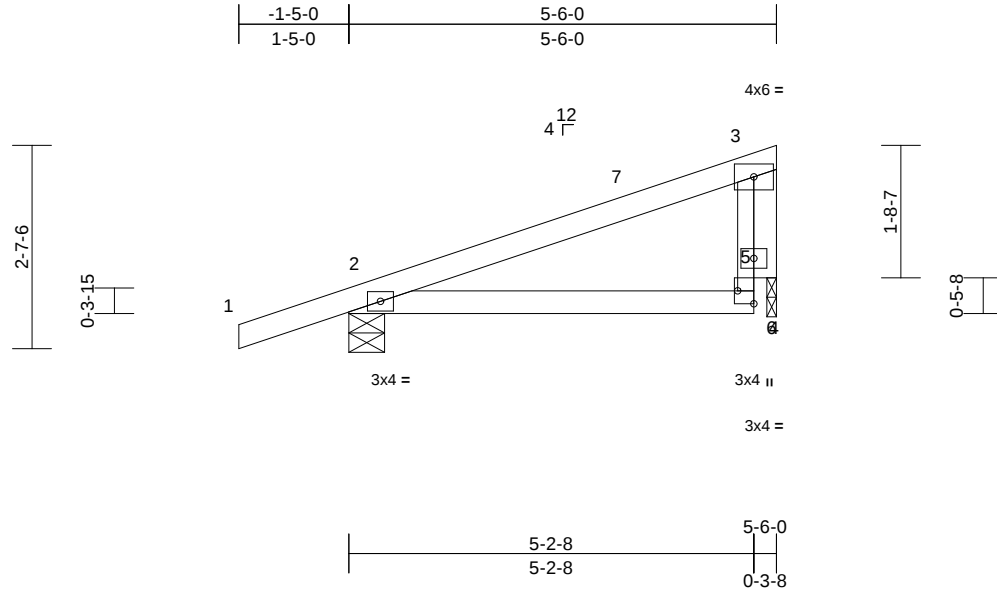
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply |                          |
| Sunflower Modern | J05   | Monopitch  | 4   | 1   | Job Reference (optional) |
|                  |       |            |     |     | I74482574                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:58

Page: 1

ID:b6cGb2F9epYGEAiEXMtWu7zeCN9-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrcDoi7J4zJC?f



Scale = 1:29.6

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|---------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.33 | Vert(LL) | -0.02 | 2-4    | >999 | 240           | 197/144  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.20 | Vert(CT) | -0.03 | 2-4    | >999 | 180           |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.00 | Horz(CT) | 0.00  | 6      | n/a  | n/a           |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-R |      |          |       |        |      |               |          |
|             |       |                 |                 |          |      |          |       |        |      | Weight: 22 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

|           |                                         |
|-----------|-----------------------------------------|
| REACTIONS | (size) 2=0-5-8, 6=0-1-8                 |
|           | Max Horiz 2=94 (LC 8)                   |
|           | Max Uplift 2=-128 (LC 8), 6=-50 (LC 12) |
|           | Max Grav 2=367 (LC 1), 6=187 (LC 1)     |

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

|           |                                               |
|-----------|-----------------------------------------------|
| TOP CHORD | 1-2=0/30, 2-3=-204/52, 4-5=0/103, 3-5=-92/222 |
| BOT CHORD | 2-4=-105/146                                  |
| WEBS      | 3-6=-120/0                                    |

#### NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0, Interior (1) 3-7-0 to 5-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

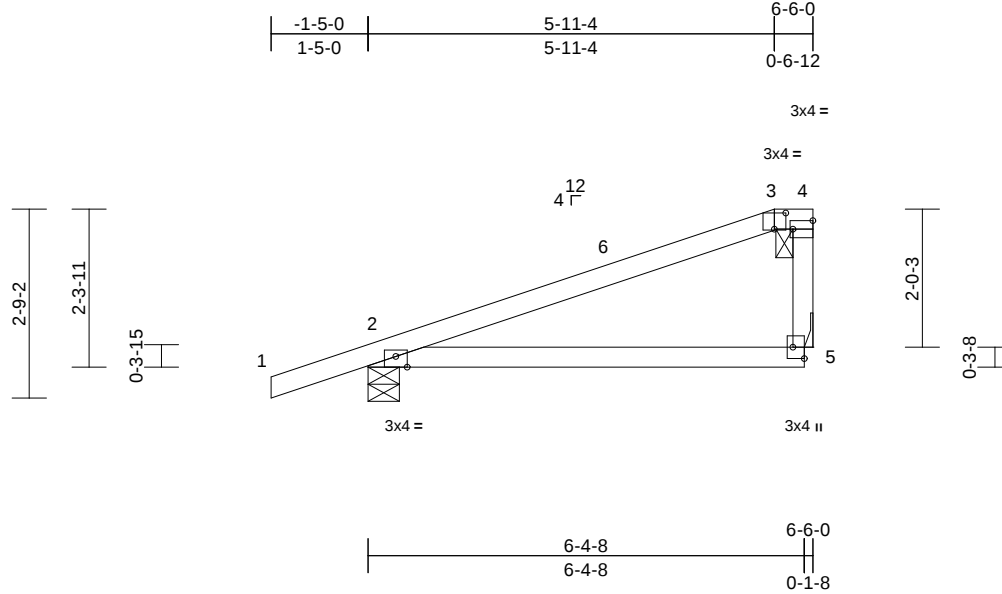
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply | Job Reference (optional) |
| Sunflower Modern | J06   | Half Hip   | 1   | 1   | I74482575                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:58

Page: 1

ID:AGPiPC0cLf16q6AOM9Wp4vzeCNT-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrcDoi7J4zJC?f



Scale = 1:33.7

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.58 | Vert(LL) | -0.05 | 2-5   | >999   | 240 | MT20          | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.38 | Vert(CT) | -0.11 | 2-5   | >692   | 180 |               |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.00 | Horz(CT) | 0.00  | 5     | n/a    | n/a |               |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-R |      |          |       |       |        |     | Weight: 25 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 2=0-5-8, 5= Mechanical  
Max Horiz 2=106 (LC 9)  
Max Uplift 2=-140 (LC 8), 5=-56 (LC 8)  
Max Grav 2=406 (LC 1), 5=260 (LC 1)

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

TOP CHORD 1-2=0/30, 2-3=-174/58, 3-4=-118/113,  
4-5=-183/231  
BOT CHORD 2-5=-113/121

#### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0,  
Interior (1) 3-7-0 to 5-11-4, Exterior(2E) 5-11-4 to 6-4-4  
zone; cantilever left and right exposed; end vertical left  
and right exposed; C-C for members and forces &  
MWFRS for reactions shown; Lumber DOL=1.60 plate  
grip DOL=1.60
- 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  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- 5) Bearings are assumed to be: Joint 2 SP No.2 crushing  
capacity of 565 psi.

- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 140 lb uplift at  
joint 2 and 56 lb uplift at joint 5.
- 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.

**LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

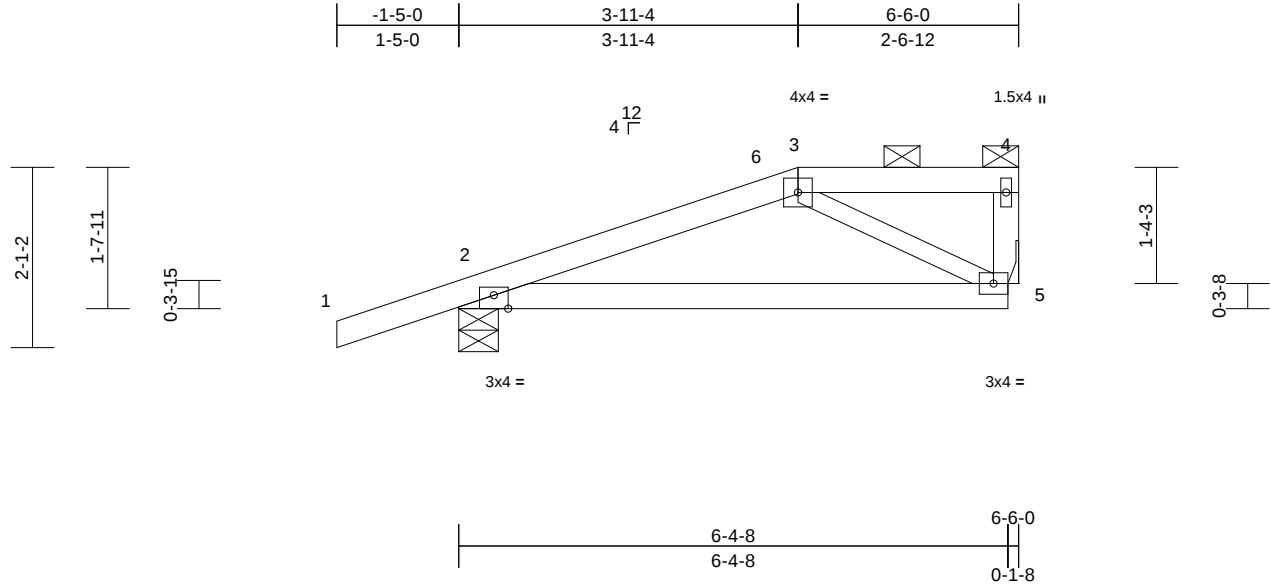
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply | Job Reference (optional) |
| Sunflower Modern | J07   | Half Hip   | 1   | 1   | I74482576                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:59

Page: 1

ID:T4HVkzhgiNdx5ycCH\_XUUCzeCNU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:26.8

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.27 | Vert(LL) | -0.08 | 2-5   | >871   | 240 | MT20          | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.54 | Vert(CT) | -0.17 | 2-5   | >435   | 180 |               |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.07 | Horz(CT) | 0.00  | 5     | n/a    | n/a |               |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-P |      |          |       |       |        |     | Weight: 25 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 5-3:2x3 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: 3-4.

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

**REACTIONS** (size) 2=0-5-8, 5= Mechanical  
 Max Horiz 2=75 (LC 9)  
 Max Uplift 2=-144 (LC 8), 5=-52 (LC 8)  
 Max Grav 2=406 (LC 1), 5=260 (LC 1)

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

TOP CHORD 1-2=0/30, 2-3=-271/233, 3-4=-28/30, 4-5=-85/97

BOT CHORD 2-5=-275/205

WEBS 3-5=-235/292

#### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)  
 Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
 Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
 exterior zone and C-C Exterior(2E) -1-5-0 to 3-7-0,  
 Interior (1) 3-7-0 to 3-11-4, Exterior(2E) 3-11-4 to 6-4-4  
 zone; cantilever left and right exposed; end vertical left  
 and right exposed; C-C for members and forces &  
 MWFRS for reactions shown; Lumber DOL=1.60 plate  
 grip DOL=1.60
- 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  
 3-06-00 tall by 2-00-00 wide will fit between the bottom  
 chord and any other members.

- 5) Bearings are assumed to be: Joint 2 SP No.2 crushing  
 capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to  
 bearing plate capable of withstanding 144 lb uplift at  
 joint 2 and 52 lb uplift at joint 5.
- 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.

**LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
 AS NOTED FOR PLAN REVIEW  
 DEVELOPMENT SERVICES  
 16023 Swingley Ridge Rd.  
 Chesterfield, MO 63015  
 314.434.1200 / MiTek-US.com

09/22/2025

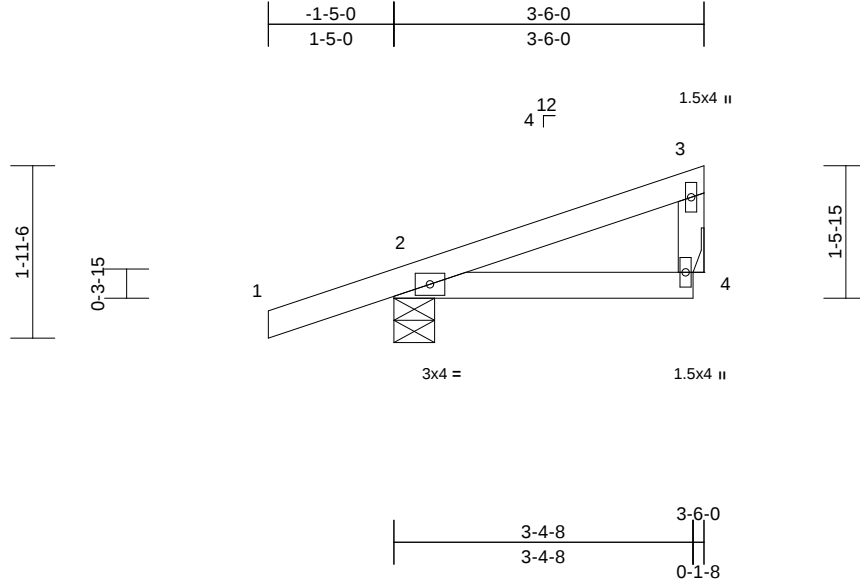
|                  |       |             |     |     |                          |
|------------------|-------|-------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type  | Qty | Ply | Job Reference (optional) |
| Sunflower Modern | J08   | Jack-Closed | 4   | 1   | I74482577                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:59

Page: 1

ID:SN?E2rd1k8D2iqcWKHUdbMzeCQY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:26

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.25 | Vert(LL) | -0.01 | 2-4   | >999   | 240 | MT20          | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.12 | Vert(CT) | -0.01 | 2-4   | >999   | 180 |               |          |
| 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-P |      |          |       |       |        |     | Weight: 14 lb | FT = 20% |

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 3-6-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size) 2=0-5-8, 4= Mechanical  
Max Horiz 2=65 (LC 9)  
Max Uplift 2=-124 (LC 8), 4=-23 (LC 12)  
Max Grav 2=286 (LC 1), 4=110 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-70/48, 3-4=-95/122  
BOT CHORD 2-4=-24/26

#### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
exterior zone and C-C Exterior(2E) zone; cantilever left  
and right exposed ; end vertical left and right  
exposed;C-C for members and forces & MWFRS for  
reactions shown; Lumber DOL=1.60 plate grip  
DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- 4) Bearings are assumed to be: Joint 2 SP No.2 crushing  
capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 23 lb uplift at joint  
4.

- 7) One H2.5T Simpson Strong-Tie connectors  
recommended to connect truss to bearing walls due to  
UPLIFT at jt(s) 2. This connection is for uplift only and  
does not consider lateral forces.
  - 8) This truss is designed in accordance with the 2018  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

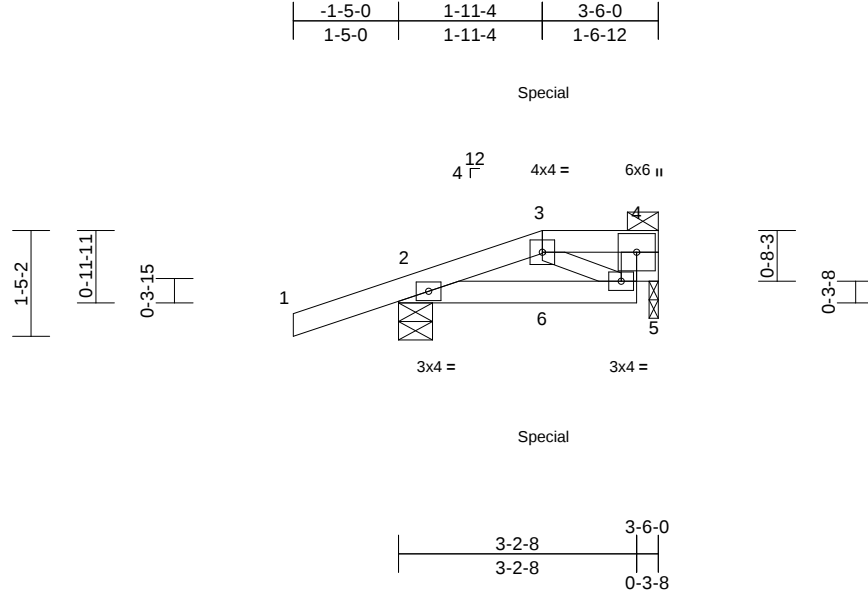
|                  |       |                 |     |     |                          |
|------------------|-------|-----------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type      | Qty | Ply |                          |
| Sunflower Modern | J10   | Half Hip Girder | 1   | 1   | Job Reference (optional) |
|                  |       |                 |     |     | I74482578                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:59

Page: 1

ID:2KNyZR?URf7fwBUUelYulZeCQ3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f



Scale = 1:31

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.25 | Vert(LL) | -0.01 | 2-5   | >999   | 240 | MT20          | 197/144  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.12 | Vert(CT) | -0.01 | 2-5   | >999   | 180 |               |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.02 | Horz(CT) | 0.00  | 5     | n/a    | n/a |               |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-P |      |          |       |       |        |     | Weight: 14 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

#### REACTIONS

|            |                            |
|------------|----------------------------|
| (size)     | 2=0-5-8, 5=0-1-8           |
| Max Horiz  | 2=43 (LC 9)                |
| Max Uplift | 2=-112 (LC 8), 5=-5 (LC 9) |
| Max Grav   | 2=271 (LC 1), 5=93 (LC 21) |

#### FORCES

(lb) - Maximum Compression/Maximum Tension

|           |                                               |
|-----------|-----------------------------------------------|
| TOP CHORD | 1-2=0/30, 2-3=-119/54, 3-4=-16/18, 4-5=-45/55 |
| BOT CHORD | 2-5=-53/133                                   |
| WEBS      | 3-5=-136/63                                   |

#### NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 160 lb down and 99 lb up at 1-11-4 on top chord, and 15 lb down at 1-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-70, 3-4=-70, 2-5=-20  
Concentrated Loads (lb)  
Vert: 3=28 (F), 6=-2 (F)



June 26, 2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcsccomponents.com](http://www.sbcsccomponents.com))

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

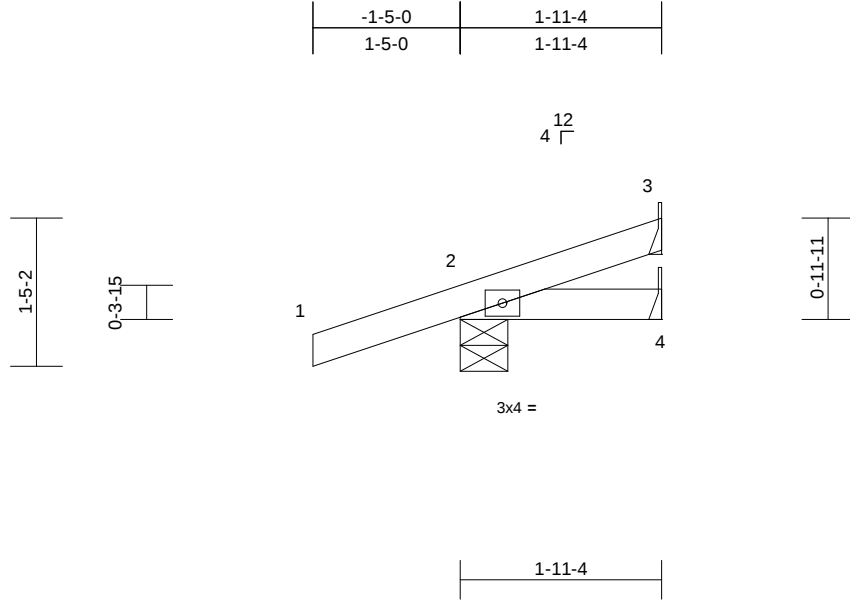
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply |                          |
| Sunflower Modern | J11   | Jack-Open  | 1   | 1   | 174482579                |
|                  |       |            |     |     | Job Reference (optional) |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:59

Page: 1

ID:BoeiL02QvhNHe5qbL2AgSRzeCTt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?i



Scale = 1:22.2

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP                  |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|-----------------------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.20 | Vert(LL) | 0.00  | 2-4    | >999 | 240    | MT20                  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.04 | Vert(CT) | 0.00  | 2-4    | >999 | 180    | 244/190               |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.00 | Horz(CT) | 0.00  | 3      | n/a  | n/a    |                       |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-P |      |          |       |        |      |        | Weight: 8 lb FT = 20% |

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 1-11-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-5-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=55 (LC 8)  
Max Uplift 2=-110 (LC 8), 3=-19 (LC 12)  
Max Grav 2=227 (LC 1), 3=26 (LC 1), 4=38 (LC 3)

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

TOP CHORD 1-2=0/30, 2-3=-35/17  
BOT CHORD 2-4=0/0

#### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 3.

- 7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



June 26, 2025

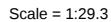
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:59 Page: 1  
ID:PvRlR2sPBIS6DyMeMF\_CTizeDA0-RfC?PsB70Hg3NSgPqnL8w3uTXbGKWrCdoi7J4zJC?f



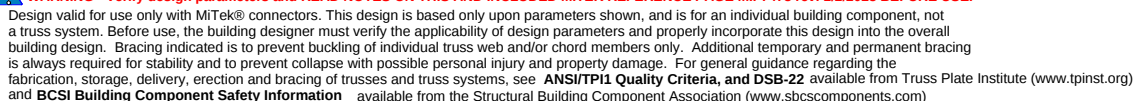
**LUMBER**

## BRACING

## NOTES

- LOAD CASE(S) Standard

- June 26, 2025



**RELEASE FOR CONSTRUCTION**  
**AS NOTED FOR PLAN REVIEW**  
**DEVELOPMENT SERVICES**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
**LIFE'S SUMMIT MISSOURI**  
314.434.1200 / MITek-US.com

09/22/2025

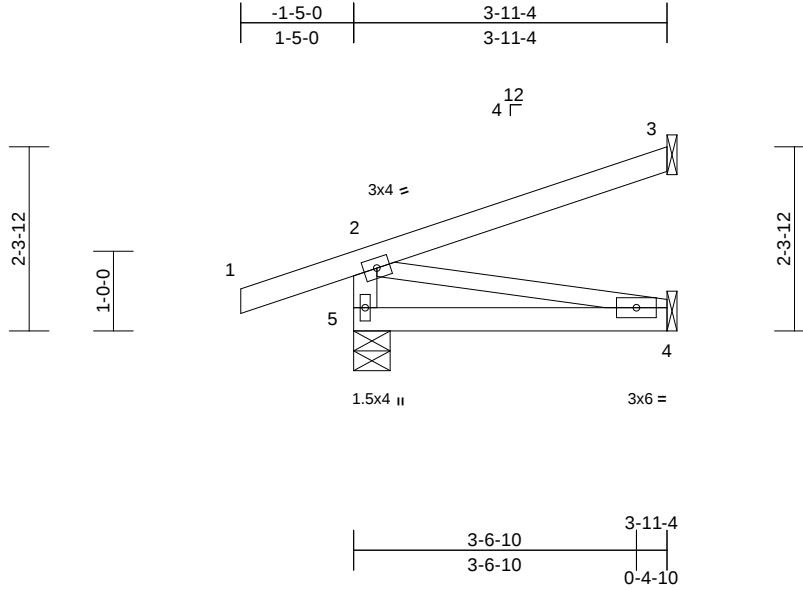
|                          |       |            |     |     |           |
|--------------------------|-------|------------|-----|-----|-----------|
| Job                      | Truss | Truss Type | Qty | Ply |           |
| Sunflower Modern         | J14   | Jack-Open  | 25  | 1   | 174482581 |
| Job Reference (optional) |       |            |     |     |           |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:59

Page: 1

ID:o8UIE?szVW7IOM5uY1Wz8QzeDBI-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCdoi7J4zJC?f



Scale = 1:28.9

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.24 | Vert(LL) | -0.01 | 4-5   | >999   | 240 | MT20          | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.19 | Vert(CT) | -0.02 | 4-5   | >999   | 180 |               |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.04 | Horz(CT) | 0.00  | 3     | n/a    | n/a |               |          |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-P |      |          |       |       |        |     | Weight: 18 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 4-2:2x3 SPF No.2

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 3= Mechanical, 4= Mechanical, 5=0-5-8  
Max Horiz 5=71 (LC 8)  
Max Uplift 3=-58 (LC 12), 5=-101 (LC 8)  
Max Grav 3=108 (LC 1), 4=76 (LC 3), 5=301 (LC 1)

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

TOP CHORD 2-5=-263/291, 1-2=0/35, 2-3=-59/30  
BOT CHORD 4-5=-172/41  
WEBS 2-4=-42/176

#### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 3.
- 7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

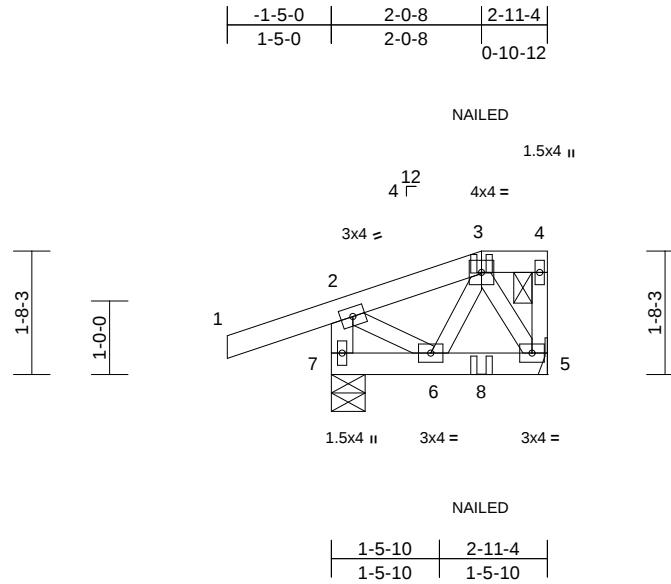
|                          |       |                 |     |     |           |
|--------------------------|-------|-----------------|-----|-----|-----------|
| Job                      | Truss | Truss Type      | Qty | Ply |           |
| Sunflower Modern         | J15   | Half Hip Girder | 2   | 1   | 174482582 |
| Job Reference (optional) |       |                 |     |     |           |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:59

Page: 1

ID:4l6ZUiA1?jQpVvEEz8BR\_izeDQO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:31.3

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP                   |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|------------------------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.24 | Vert(LL) | 0.00  | 6      | >999 | 240    | MT20                   |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.03 | Vert(CT) | 0.00  | 5-6    | >999 | 180    |                        |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.03 | Horz(CT) | 0.00  | 5      | n/a  | n/a    |                        |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-P |      |          |       |        |      |        | Weight: 16 lb FT = 20% |

#### LUMBER

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

#### BRACING

|           |                                                                                                                   |
|-----------|-------------------------------------------------------------------------------------------------------------------|
| TOP CHORD | Structural wood sheathing directly applied or 2-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing.                                                              |

#### REACTIONS

|            |                             |
|------------|-----------------------------|
| (size)     | 5= Mechanical, 7=0-5-8      |
| Max Horiz  | 7=73 (LC 11)                |
| Max Uplift | 5=-41 (LC 9), 7=-114 (LC 8) |
| Max Grav   | 5=94 (LC 1), 7=264 (LC 1)   |

#### FORCES

|                                            |                                                            |
|--------------------------------------------|------------------------------------------------------------|
| (lb) - Maximum Compression/Maximum Tension |                                                            |
| TOP CHORD                                  | 1-2=0/35, 2-3=-72/53, 3-4=-29/31, 4-5=-28/34, 2-7=-253/280 |
| BOT CHORD                                  | 6-7=-158/67, 5-6=-65/52                                    |
| WEBS                                       | 3-6=-29/44, 3-5=-60/90, 2-6=-7/108                         |

#### NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 7 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 5.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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)

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-7=-20  
Concentrated Loads (lb)  
Vert: 3=-2 (B), 8=-5 (B)



June 26,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcscomponents.com](http://www.sbcscomponents.com))

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

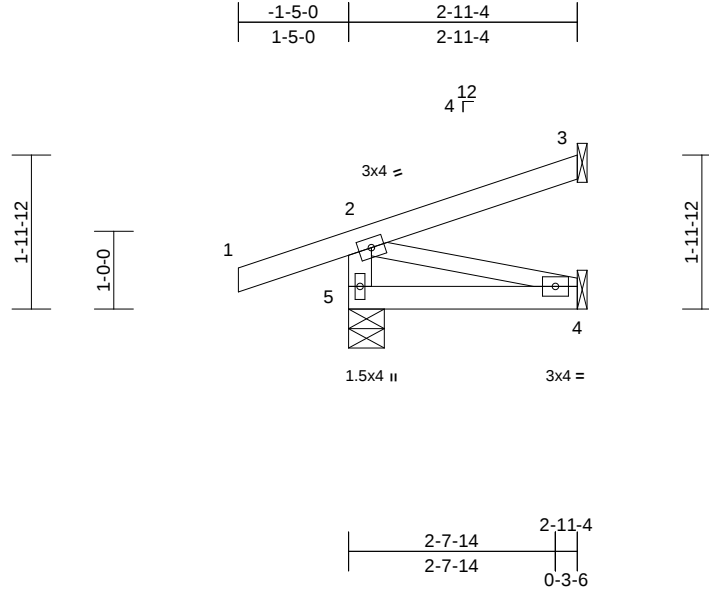
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply | Job Reference (optional) |
| Sunflower Modern | J16   | Jack-Open  | 4   | 1   | I74482583                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:59

Page: 1

ID:GPHJoSJwP5pFJbaL6yt0x1zeDQD-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?r



Scale = 1:29.6

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP                   |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|------------------------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.24 | Vert(LL) | 0.00  | 4-5    | >999 | 240    | MT20                   |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.10 | Vert(CT) | -0.01 | 4-5    | >999 | 180    | 244/190                |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.04 | Horz(CT) | 0.00  | 3      | n/a  | n/a    |                        |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-P |      |          |       |        |      |        | Weight: 14 lb FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 4-2:2x3 SPF No.2

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 3= Mechanical, 4= Mechanical, 5=0-5-8  
Max Horiz 5=57 (LC 8)  
Max Uplift 3=-37 (LC 12), 5=-98 (LC 8)  
Max Grav 3=64 (LC 1), 4=56 (LC 3), 5=264 (LC 1)

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

TOP CHORD 2-5=-236/264, 1-2=0/35, 2-3=-40/23  
BOT CHORD 4-5=-142/31  
WEBS 2-4=-32/147

#### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 3.
  - 7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 4. This connection is for uplift only and does not consider lateral forces.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



June 26,2025

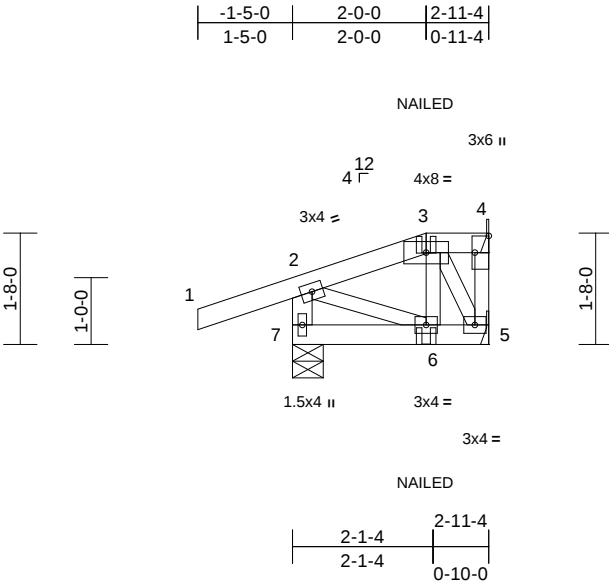
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcsccomponents.com](http://www.sbcsccomponents.com))

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

|                  |       |                 |     |     |                          |
|------------------|-------|-----------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type      | Qty | Ply |                          |
| Sunflower Modern | J18   | Half Hip Girder | 2   | 1   | Job Reference (optional) |
|                  |       |                 |     |     | I74482584                |



Scale = 1:34.5

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP                   |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|------------------------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.24 | Vert(LL) | 0.00  | 6-7    | >999 | 240    | MT20                   |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.03 | Vert(CT) | 0.00  | 6-7    | >999 | 180    | 197/144                |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB       | 0.03 | Horz(CT) | 0.00  | 4      | n/a  | n/a    |                        |
| BCDL        | 10.0  | Code            | IRC2018/TPI2014 | Matrix-P |      |          |       |        |      |        | Weight: 16 lb FT = 20% |

|                                                          |                                                                                                                   |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>LUMBER</b>                                            |                                                                                                                   |
| TOP CHORD                                                | 2x4 SP No.2                                                                                                       |
| BOT CHORD                                                | 2x4 SP No.2                                                                                                       |
| WEBS                                                     | 2x3 SPF No.2 *Except* 7-2:2x4 SP No.2                                                                             |
| <b>BRACING</b>                                           |                                                                                                                   |
| TOP CHORD                                                | Structural wood sheathing directly applied or 2-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4. |
| BOT CHORD                                                | Rigid ceiling directly applied or 10-0-0 oc bracing.                                                              |
| <b>REACTIONS</b> (size)                                  |                                                                                                                   |
|                                                          | 4= Mechanical, 5= Mechanical, 7=0-5-8                                                                             |
| Max Horiz                                                | 7=73 (LC 9)                                                                                                       |
| Max Uplift                                               | 4=-13 (LC 9), 5=-18 (LC 9), 7=-113 (LC 8)                                                                         |
| Max Grav                                                 | 4=29 (LC 1), 5=65 (LC 3), 7=259 (LC 1)                                                                            |
| <b>FORCES</b> (lb) - Maximum Compression/Maximum Tension |                                                                                                                   |
| TOP CHORD                                                | 1-2=0/35, 2-3=-68/47, 3-4=-28/31, 4-5=0/0, 2-7=-241/286                                                           |
| BOT CHORD                                                | 6-7=-156/66, 5-6=-61/67                                                                                           |
| WEBS                                                     | 3-5=-87/79, 2-6=-7/116, 3-6=-9/59                                                                                 |

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

2) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

5) Bearings are assumed to be: , Joint 7 SP No.2 crushing capacity of 565 psi.

6) Refer to girder(s) for truss to truss connections.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 4 and 18 lb uplift at joint 5.

8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.

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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

12) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.

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

- LOAD CASE(S) Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-7=-20

Concentrated Loads (lb)

Vert: 6=11 (F)



June 26,2025

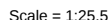
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / Mitek-US.com

09/22/2025

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:39:59 Page: 1  
ID: DaUtZtr1j3xIOx89YhGfEzeDOC-RfC?PsB70Ha3NSaPanL8w3uITXbGKWRcDoi7J4Cz?i



## LUMBER

| BRACING   |                                                                                        |
|-----------|----------------------------------------------------------------------------------------|
| TOP CHORD | Structural wood sheathing directly applied or 2-11-4 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing.                                   |

**REACTIONS** (size) 3= Mechanical, 4= Mechanical,  
5=0-5-8  
Max Horiz 5=57 (LC 8)  
Max Uplift 3=43 (LC 12), 5=-98 (LC 8)  
Max Grav 3=69 (LC 1), 4=49 (LC 3), 5=263  
(LC 1)

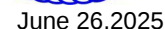
| <b>FORCES</b> | (lb) - Maximum Compression/Maximum Tension |
|---------------|--------------------------------------------|
| TOP CHORD     | 2-5=-231/278, 1-2=0/35, 2-3=-44/22         |
| BOT CHORD     | 4-5=0/0                                    |

## NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
exterior zone and C-C Exterior(2E) zone; cantilever left  
and right exposed ; end vertical left and right  
exposed; C-C for members and forces & MWFRS for  
reactions shown; Lumber DOL=1.60 plate grip  
DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3'-0"-0" tall by 2'-0"-0" wide will fit between the bottom  
chord and any other members.
- 4) Bearings are assumed to be: , Joint 5 SP No.2 crushing  
capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 3.
- 7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1

LOAD CASE(S) Standard



**WARNING – verify design parameters and READ NOTES on this and INCLUDED MITER REFERENCE PAGE MIT-7475 REV. 12/2023 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinstitute.org](http://www.tpinstitute.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcsccomponents.com](http://www.sbcsccomponents.com))

**RELEASE FOR CONSTRUCTION**  
**AS NOTED FOR PLAN REVIEW**  
**DEVELOPMENT SERVICES**  
16023 Swingle Ridge Rd.  
Chesterfield, MO 63017  
314 434 1200 / Mitek-LLS.com

09/22/2025

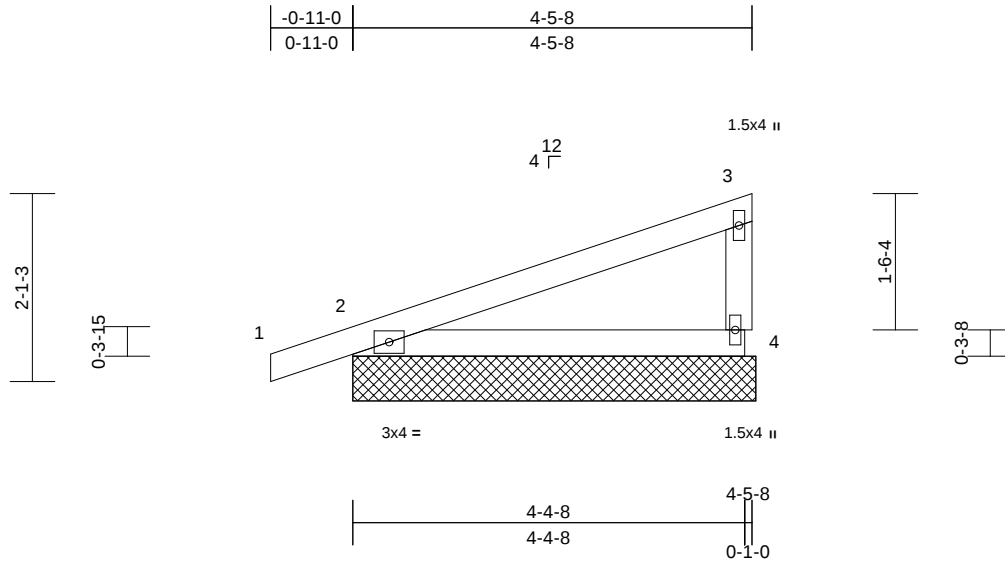
|                  |       |                           |     |     |                          |
|------------------|-------|---------------------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type                | Qty | Ply |                          |
| Sunflower Modern | M01   | Monopitch Supported Gable | 2   | 1   | Job Reference (optional) |
|                  |       |                           |     |     | I74482586                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:40:00

Page: 1

ID:cquXHAJnb2z8dlhvV3xNnzzeCKV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f



Scale = 1:25.7

| Loading     | (psf) | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d | PLATES | GRIP                   |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|-----|--------|------------------------|
| TCLL (roof) | 25.0  | Plate Grip DOL  | 1.15            | TC       | 0.51 | Vert(LL) | n/a   | -      | n/a | 999    | MT20                   |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC       | 0.25 | Vert(CT) | n/a   | -      | n/a | 999    | 197/144                |
| 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-P |      |          |       |        |     |        | Weight: 16 lb FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SPF No.3

#### BRACING

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

#### REACTIONS (size) 2=4-6-0, 4=4-6-0

Max Horiz 2=76 (LC 9)  
Max Uplift 2=-85 (LC 8), 4=-45 (LC 12)  
Max Grav 2=265 (LC 1), 4=187 (LC 1)

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

TOP CHORD 1-2=0/19, 2-3=-112/68, 3-4=-144/238  
BOT CHORD 2-4=-30/40

#### NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
exterior zone and C-C Corner(3E) zone; cantilever left  
and right exposed; end vertical left and right  
exposed; C-C for members and forces & MWFRS for  
reactions shown; Lumber DOL=1.60 plate grip  
DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.

- All bearings are assumed to be SP No.2 crushing  
capacity of 565 psi.
- Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 45 lb uplift at joint  
4 and 85 lb uplift at joint 2.
- Beveled plate or shim required to provide full bearing  
surface with truss chord at joint(s) 2.
- This truss is designed in accordance with the 2018  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.

#### LOAD CASE(S) Standard



June 26, 2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcsccomponents.com](http://www.sbcsccomponents.com))

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

09/22/2025

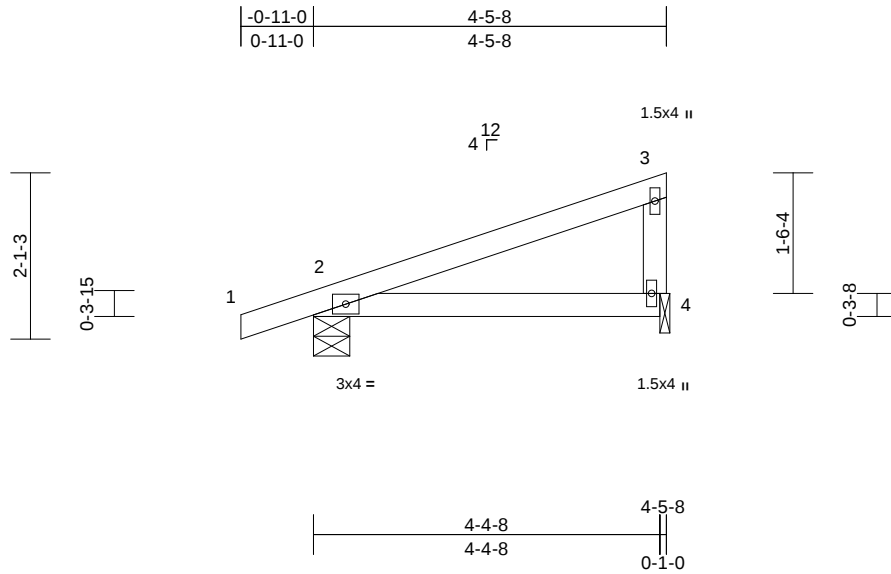
|                  |       |            |     |     |                          |
|------------------|-------|------------|-----|-----|--------------------------|
| Job              | Truss | Truss Type | Qty | Ply |                          |
| Sunflower Modern | M02   | Monopitch  | 7   | 1   | Job Reference (optional) |
|                  |       |            |     |     | I74482587                |

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:40:00

Page: 1

ID:KTzupnDOFu58HEfZb5Jk?VzeCKc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?I



|                |       |                 |                 |            |      |             |       |       |        |     |               |             |
|----------------|-------|-----------------|-----------------|------------|------|-------------|-------|-------|--------|-----|---------------|-------------|
| <b>Loading</b> | (psf) | <b>Spacing</b>  | 2-0-0           | <b>CSI</b> |      | <b>DEFL</b> | in    | (loc) | l/defl | L/d | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof)    | 25.0  | Plate Grip DOL  | 1.15            | TC         | 0.37 | Vert(LL)    | -0.02 | 2-4   | >999   | 240 | MT20          | 197/144     |
| TCDL           | 10.0  | Lumber DOL      | 1.15            | BC         | 0.22 | Vert(CT)    | -0.03 | 2-4   | >999   | 180 |               |             |
| 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-P   |      |             |       |       |        |     | Weight: 16 lb | FT = 20%    |

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SPF No.3

#### BRACING

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

**REACTIONS** (size) 2=0-5-8, 4=0-1-8

Max Horiz 2=76 (LC 9)  
Max Uplift 2=-95 (LC 8), 4=-42 (LC 12)  
Max Grav 2=275 (LC 1), 4=172 (LC 1)

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

TOP CHORD 1-2=0/19, 2-3=-102/60, 3-4=-132/193  
BOT CHORD 2-4=-30/33

#### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;  
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)  
exterior zone and C-C Exterior(2E) zone; cantilever left  
and right exposed; end vertical left and right  
exposed; C-C for members and forces & MWFRS for  
reactions shown; Lumber DOL=1.60 plate grip  
DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- 4) Bearings are assumed to be: Joint 2 SP No.2 crushing  
capacity of 565 psi, Joint 4 SPF No.3 crushing capacity  
of 425 psi.
- 5) Bearing at joint(s) 4 considers parallel to grain value  
using ANSI/TPI 1 angle to grain formula. Building  
designer should verify capacity of bearing surface.

- 6) Provide mechanical connection (by others) of truss to  
bearing plate at joint(s) 4.
- 7) One H2.5T Simpson Strong-Tie connectors  
recommended to connect truss to bearing walls due to  
UPLIFT at jt(s) 2 and 4. This connection is for uplift only  
and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 26, 2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

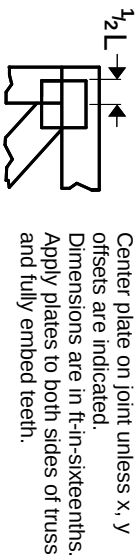
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

RELEASE FOR CONSTRUCTION  
**Mitek**  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63015  
314.434.1200 / MiTek-US.com

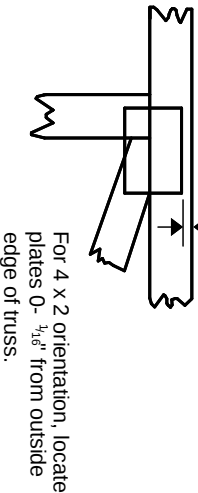
09/22/2025

## Symbols

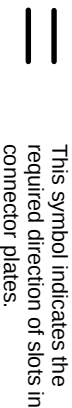
### PLATE LOCATION AND ORIENTATION



0- $\frac{1}{16}$ "



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " from outside edge of truss.



\* Plate location details available in MITek software or upon request.

### PLATE SIZE

4 X 4

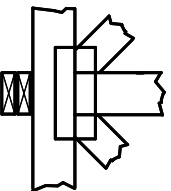
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

### LATERAL BRACING LOCATION



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

### BEARING



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

### Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

## Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)

1

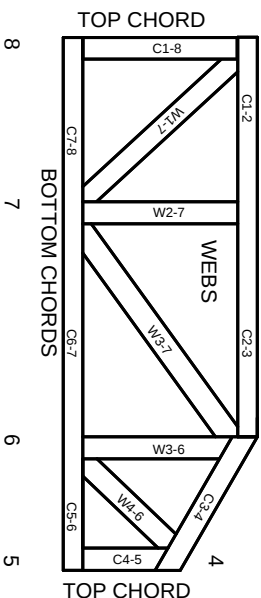
2

TOP CHORDS

Joint ID

3

typ.



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

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

## Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

## Design General Notes

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

© 2023 MITek® All Rights Reserved

# MITek®

MITek Engineering Reference Sheet: MIL-7473 rev. 1/12/2023



## 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

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

09/22/2025