



RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
Development Services  
LEE'S SUMMIT, MISSOURI

RE: 3043214  
SUMMIT/COBEY CREEK #23/MO

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

**Site Information:**

Customer: Project Name: 3043214  
Lot/Block:  
Address:  
City:

Model:  
Subdivision:  
State:

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

Design Code: IRC2018/TPI2014  
Wind Code: ASCE 7-16  
Roof Load: 45.0 psf

Design Program: MiTek 20/20 8.4  
Wind Speed: 115 mph  
Floor Load: N/A psf

This package includes 41 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal#     | Truss Name | Date       | No. | Seal#     | Truss Name | Date       |
|-----|-----------|------------|------------|-----|-----------|------------|------------|
| 1   | I49282462 | A1         | 12/16/2021 | 21  | I49282482 | B8         | 12/16/2021 |
| 2   | I49282463 | A2         | 12/16/2021 | 22  | I49282483 | C1         | 12/16/2021 |
| 3   | I49282464 | A3         | 12/16/2021 | 23  | I49282484 | C2         | 12/16/2021 |
| 4   | I49282465 | A4         | 12/16/2021 | 24  | I49282485 | C3         | 12/16/2021 |
| 5   | I49282466 | A5         | 12/16/2021 | 25  | I49282486 | C4         | 12/16/2021 |
| 6   | I49282467 | A6         | 12/16/2021 | 26  | I49282487 | C5         | 12/16/2021 |
| 7   | I49282468 | A7         | 12/16/2021 | 27  | I49282488 | C6         | 12/16/2021 |
| 8   | I49282469 | A8         | 12/16/2021 | 28  | I49282489 | CJ1        | 12/16/2021 |
| 9   | I49282470 | A9         | 12/16/2021 | 29  | I49282490 | D1         | 12/16/2021 |
| 10  | I49282471 | A10        | 12/16/2021 | 30  | I49282491 | D2         | 12/16/2021 |
| 11  | I49282472 | A11        | 12/16/2021 | 31  | I49282492 | E1         | 12/16/2021 |
| 12  | I49282473 | A12        | 12/16/2021 | 32  | I49282493 | E2         | 12/16/2021 |
| 13  | I49282474 | A13        | 12/16/2021 | 33  | I49282494 | J1         | 12/16/2021 |
| 14  | I49282475 | A15        | 12/16/2021 | 34  | I49282495 | L1         | 12/16/2021 |
| 15  | I49282476 | B1         | 12/16/2021 | 35  | I49282496 | L2         | 12/16/2021 |
| 16  | I49282477 | B2         | 12/16/2021 | 36  | I49282497 | M1         | 12/16/2021 |
| 17  | I49282478 | B3         | 12/16/2021 | 37  | I49282498 | V6         | 12/16/2021 |
| 18  | I49282479 | B5         | 12/16/2021 | 38  | I49282499 | V7         | 12/16/2021 |
| 19  | I49282480 | B6         | 12/16/2021 | 39  | I49282500 | V8         | 12/16/2021 |
| 20  | I49282481 | B7         | 12/16/2021 | 40  | I49282501 | V9         | 12/16/2021 |

The truss drawing(s) referenced above have been prepared by  
MiTek USA, Inc. under my direct supervision  
based on the parameters provided by Builders FirstSource (Valley Center).  
Truss Design Engineer's Name: Sevier, Scott  
My license renewal date for the state of Missouri is December 31, 2023.  
Missouri COA: 001193

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



December 16, 2021



RE: 3043214 - SUMMIT/COBEY CREEK #23/MO

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

### Site Information:

Project Customer:      Project Name: 3043214

Lot/Block:

Subdivision:

Address:

City, County:

State:

| No. | Seal#     | Truss Name | Date       |
|-----|-----------|------------|------------|
| 41  | I49282502 | V10        | 12/16/2021 |

|                          |       |                              |     |     |                           |
|--------------------------|-------|------------------------------|-----|-----|---------------------------|
| Job                      | Truss | Truss Type                   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO |
| 3043214                  | A1    | Roof Special Supported Gable | 1   | 1   | I49282462                 |
| Job Reference (optional) |       |                              |     |     |                           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

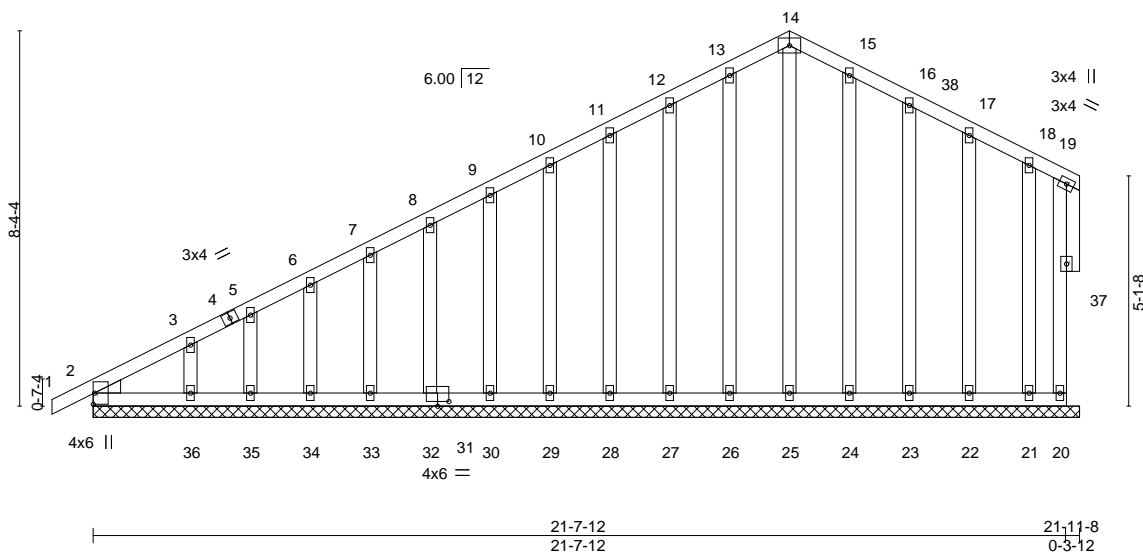
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:07 2021 Page 1

ID:4rXHhD3\_rBCgQSIY2gdJuzGwv6-?452FUC6Zv5jJPm2ZVvgk1MTTzuLyOo?0ck9Txy8jvE

0-11-0 15-6-0 21-7-12 21-11-8  
0-11-0 15-6-0 6-1-12 0-3-12

4x6 =

Scale = 1:51.3



|                       |                 |                  |             |                 |             |                |            |
|-----------------------|-----------------|------------------|-------------|-----------------|-------------|----------------|------------|
| Plate Offsets (X,Y)-- |                 | [31:0-3-0,0-1-4] |             | 21-7-12 21-7-12 |             | 21-11-8 0-3-12 |            |
| <b>LOADING</b> (psf)  | <b>SPACING-</b> | 2-0-0            | <b>CSI.</b> | <b>DEFL.</b>    | in (loc)    | l/defl         | <b>L/d</b> |
| TCLL 25.0             | Plate Grip DOL  | 1.15             | TC 0.15     | Vert(LL)        | -0.00       | 1              | n/r        |
| TCDL 10.0             | Lumber DOL      | 1.15             | BC 0.07     | Vert(CT)        | 0.00        | 1              | n/r        |
| BCLL 0.0              | Rep Stress Incr | YES              | WB 0.16     | Horz(CT)        | -0.00       | 20             | n/a        |
| BCDL 10.0             | Code            | IRC2018/TPI2014  | Matrix-S    |                 |             |                |            |
|                       |                 |                  |             | <b>PLATES</b>   | <b>GRIP</b> |                |            |
|                       |                 |                  |             | MT20            | 197/144     |                |            |
|                       |                 |                  |             | Weight: 147 lb  |             | FT = 20%       |            |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 21-11-8.  
(lb) - Max Horz 2=249(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 24, 23, 22, 21, 20  
Max Grav All reactions 250 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 24, 23, 22, 21, 20

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

TOP CHORD 2-3=-257/166

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-2-0, Exterior(2N) 2-2-0 to 15-6-0, Corner(3R) 15-6-0 to 18-6-0, Exterior(2N) 18-6-0 to 21-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 24, 23, 22, 21, 20.
- 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.



December 16, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |              |     |     |                           |
|---------|-------|--------------|-----|-----|---------------------------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO |
| 3043214 | A2    | Roof Special | 6   | 1   | 149282463                 |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

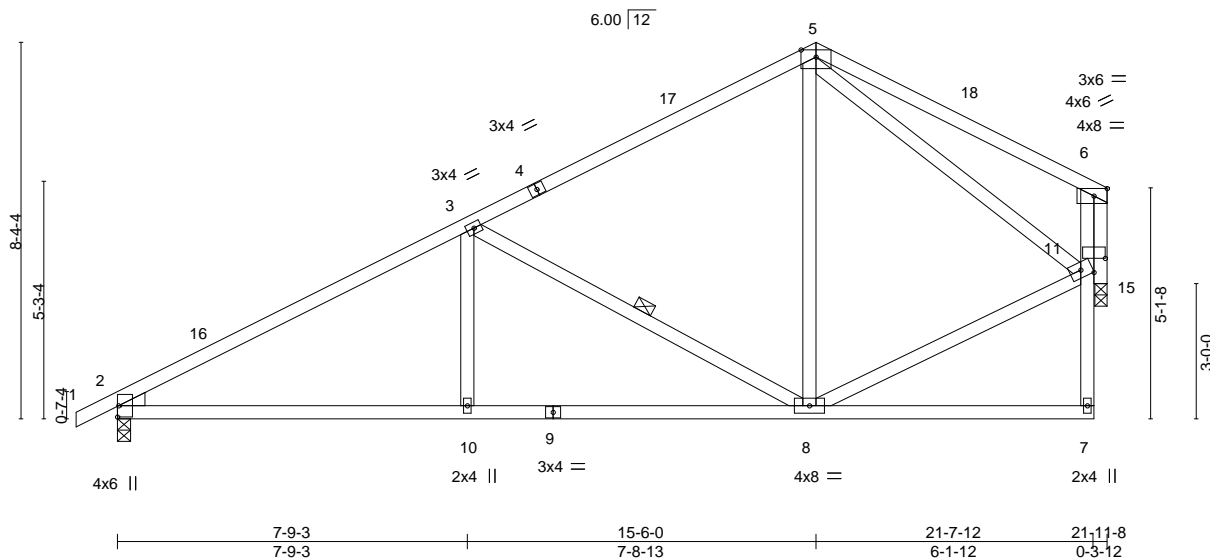
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0-11-0 7-9-3 15-6-0 21-7-12 21-11-8  
0-11-0 7-9-3 7-8-13 6-1-12 0-3-12

5x8 =

Scale = 1:51.1



| Plate Offsets (X, Y)-- |                      | [11:0-3-0, 0-3-12]      |                              |
|------------------------|----------------------|-------------------------|------------------------------|
| LOADING (psf)          | SPACING-             | CSI.                    | DEFL.                        |
| TCLL 25.0              | Plate Grip DOL 1.15  | TC 0.58                 | in (loc) l/defl L/d          |
| TCDL 10.0              | Lumber DOL 1.15      | BC 0.48                 | Vert(LL) -0.06 8-10 >999 240 |
| BCLL 0.0               | Rep Stress Incr YES  | WB 0.54                 | Vert(CT) -0.13 8-10 >999 180 |
| BCDL 10.0              | Code IRC2018/TPI2014 | Matrix-AS               | Horz(CT) 0.02 15 n/a n/a     |
|                        |                      | PLATES GRIP             |                              |
|                        |                      | MT20 197/144            |                              |
|                        |                      | Weight: 101 lb FT = 20% |                              |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-8

#### REACTIONS.

(size) 2=0-3-8, 15=0-3-4  
Max Horz 2=213(LC 9)  
Max Uplift 2=192(LC 12), 15=162(LC 12)  
Max Grav 2=1047(LC 1), 15=954(LC 1)

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

TOP CHORD 2-3=-1536/299, 3-5=-792/225, 5-6=-310/154, 6-11=-108/656  
BOT CHORD 2-10=-399/1284, 8-10=-399/1284  
WEBS 3-10=0/308, 3-8=-808/301, 5-8=-35/370, 8-11=-169/640, 5-11=-514/127, 6-15=-967/227

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior(1) 18-6-0 to 21-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=192, 15=162.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 16, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282464 |
| 3043214 | A3    | ROOF SPECIAL | 1   | 1   |                           |           |

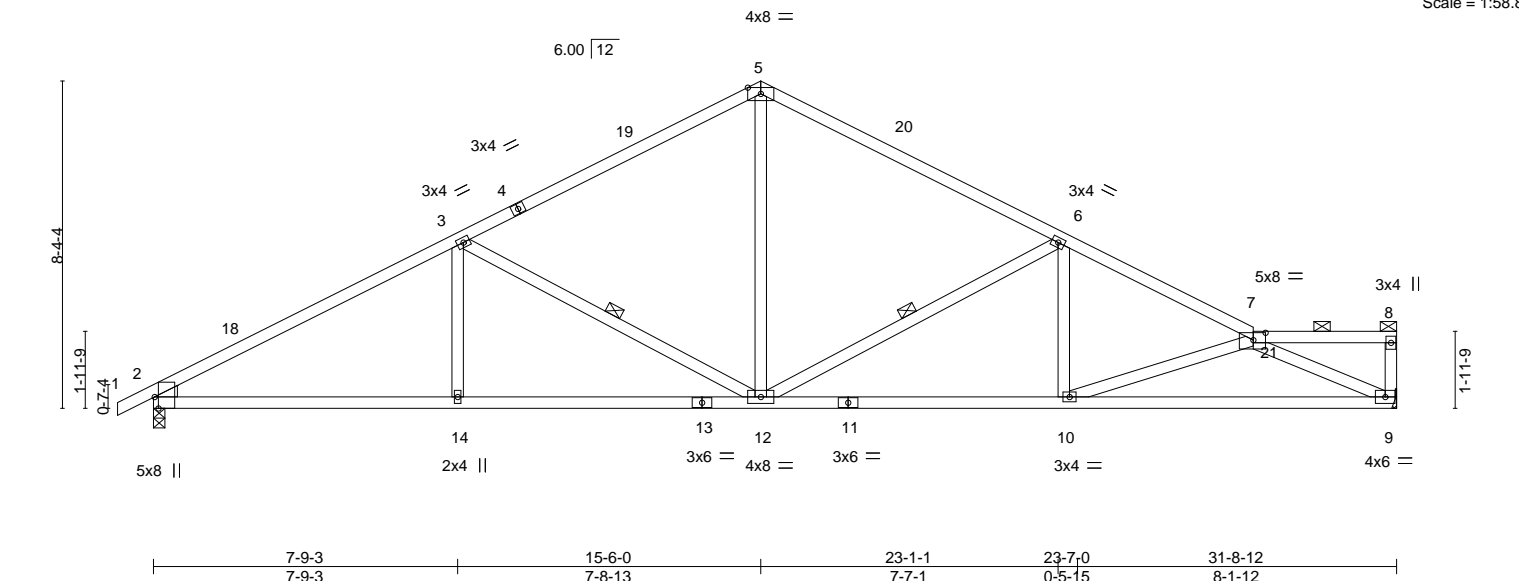
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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|         |       |        |        |        |         |         |
|---------|-------|--------|--------|--------|---------|---------|
| -0-11-0 | 7-9-3 | 15-6-0 | 21-9-7 | 23-1-1 | 28-0-13 | 31-8-12 |
| 0-11-0  | 7-9-3 | 7-8-13 | 6-3-7  | 1-3-10 | 4-11-12 | 3-7-15  |

Scale = 1:58.8



|  |                      |                |             |                  |             |                 |     |                  |             |                   |          |
|--|----------------------|----------------|-------------|------------------|-------------|-----------------|-----|------------------|-------------|-------------------|----------|
| Plate Offsets (X,Y)-- [2:0-3-8,Edge], [7:0-3-12,0-2-4] |                      | 7-9-3<br>7-9-3 |             | 15-6-0<br>7-8-13 |             | 23-1-1<br>7-7-1 |     | 23-7-0<br>0-5-15 |             | 31-8-12<br>8-1-12 |          |
| <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 25.0  | Plate Grip DOL       | 1.15           | TC 0.62     | Vert(LL)         | -0.15 10-12 | >999            | 240 | MT20             | 197/144     |                   |          |
| TCDL 10.0  | Lumber DOL           | 1.15           | BC 0.73     | Vert(CT)         | -0.31 12-14 | >999            | 180 |                  |             |                   |          |
| BCLL 0.0   | Rep Stress Incr      | YES            | WB 0.78     | Horz(CT)         | 0.11 9      | n/a             | n/a |                  |             |                   |          |
| BCDL 10.0  | Code IRC2018/TPI2014 |                | Matrix-AS   |                  |             |                 |     |                  |             |                   |          |
|  |                      |                |             |                  |             |                 |     |                  |             | Weight: 127 lb    | FT = 20% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-12, 6-12

#### REACTIONS.

(size) 9=Mechanical, 2=0-3-8  
Max Horz 2=155(LC 11)  
Max Uplift 9=239(LC 13), 2=253(LC 12)  
Max Grav 9=1420(LC 1), 2=1486(LC 1)

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

TOP CHORD 2-3=-2434/391, 3-5=-1732/360, 5-6=-1731/355, 6-7=-2482/397  
BOT CHORD 2-14=-389/2077, 12-14=-389/2077, 10-12=-339/2180, 9-10=-458/2548  
WEBS 3-14=0/293, 3-12=-773/293, 5-12=-112/909, 7-10=-391/140, 7-9=-2726/503, 6-12=-864/284, 6-10=0/391

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-3-1, Interior(1) 2-3-1 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=239, 2=253.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Chesterfield, MO 63017

|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282465 |
| 3043214 | A4    | Roof Special | 1   | 1   |                           |           |

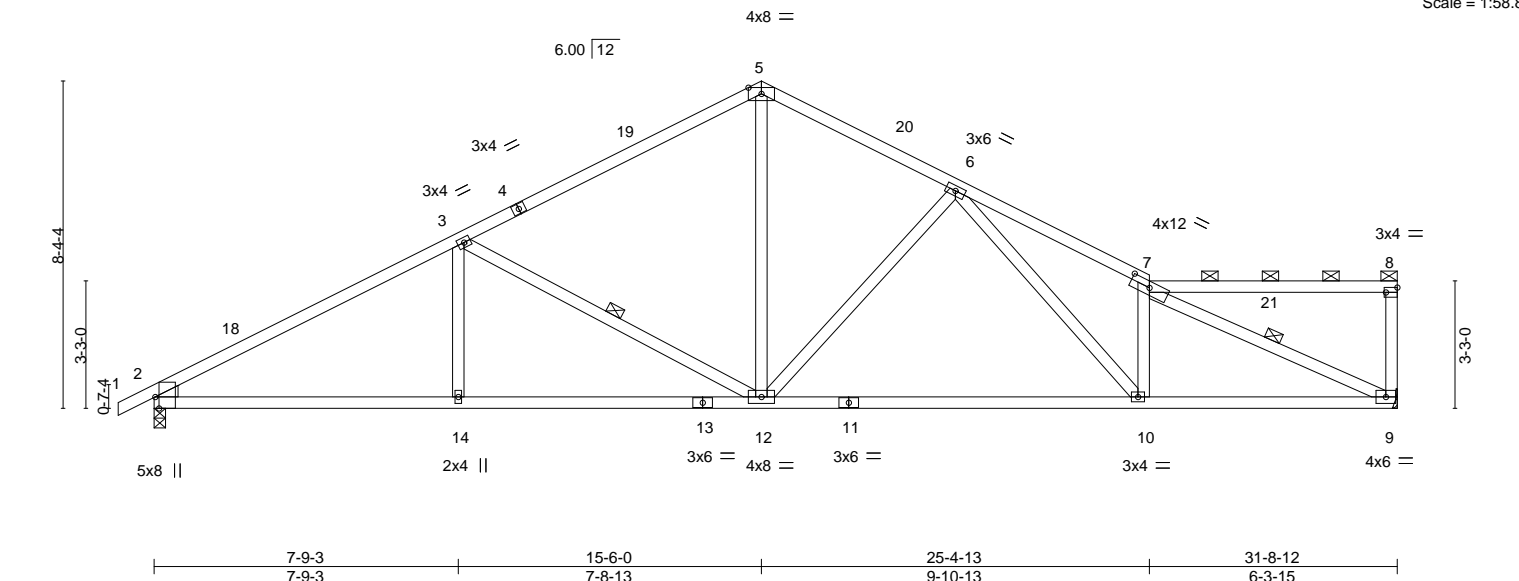
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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|         |       |        |        |         |         |
|---------|-------|--------|--------|---------|---------|
| -0-11-0 | 7-9-3 | 15-6-0 | 20-5-7 | 25-4-13 | 31-8-12 |
| 0-11-0  | 7-9-3 | 7-8-13 | 4-11-7 | 4-11-7  | 6-3-15  |

Scale = 1:58.8



|  |      |                       |      |             |      |                                  |                      |                |             |
|--|------|-----------------------|------|-------------|------|----------------------------------|----------------------|----------------|-------------|
| Plate Offsets (X,Y)-- [2:0-3-8,Edge], [7:0-6-0,0-1-14], [8:Edge,0-1-8] |      |                       |      |             |      |                                  |                      |                |             |
| <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   | 25.0 | Plate Grip DOL        | 1.15 | TC          | 0.62 | Vert(LL)                         | -0.22 10-12 >999 240 | MT20           | 197/144     |
| TCDL   | 10.0 | Lumber DOL            | 1.15 | BC          | 0.76 | Vert(CT)                         | -0.51 10-12 >745 180 |                |             |
| BCLL   | 0.0  | Rep Stress Incr       | YES  | WB          | 0.64 | Horz(CT)                         | 0.11 9 n/a n/a       |                |             |
| BCDL   | 10.0 | Code IRC2018/TPI2014  |      | Matrix-AS   |      |                                  |                      | Weight: 131 lb | FT = 20%    |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 3-12, 7-9

#### REACTIONS.

(size) 9=Mechanical, 2=0-3-8  
 Max Horz 2=192(LC 11)  
 Max Uplift 9=245(LC 13), 2=253(LC 12)  
 Max Grav 9=1420(LC 1), 2=1486(LC 1)

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

TOP CHORD 2-3=-2433/394, 3-5=-1735/355, 5-6=-1677/353, 6-7=-2764/479  
 BOT CHORD 2-14=-411/2078, 12-14=-411/2078, 10-12=-335/1840, 9-10=-396/2409  
 WEBS 3-14=0/273, 3-12=-764/299, 5-12=-151/997, 6-12=-635/242, 6-10=-147/836,  
 7-10=-473/191, 7-9=-2601/395

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-3-1, Interior(1) 2-3-1 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=245, 2=253.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 16, 2021

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



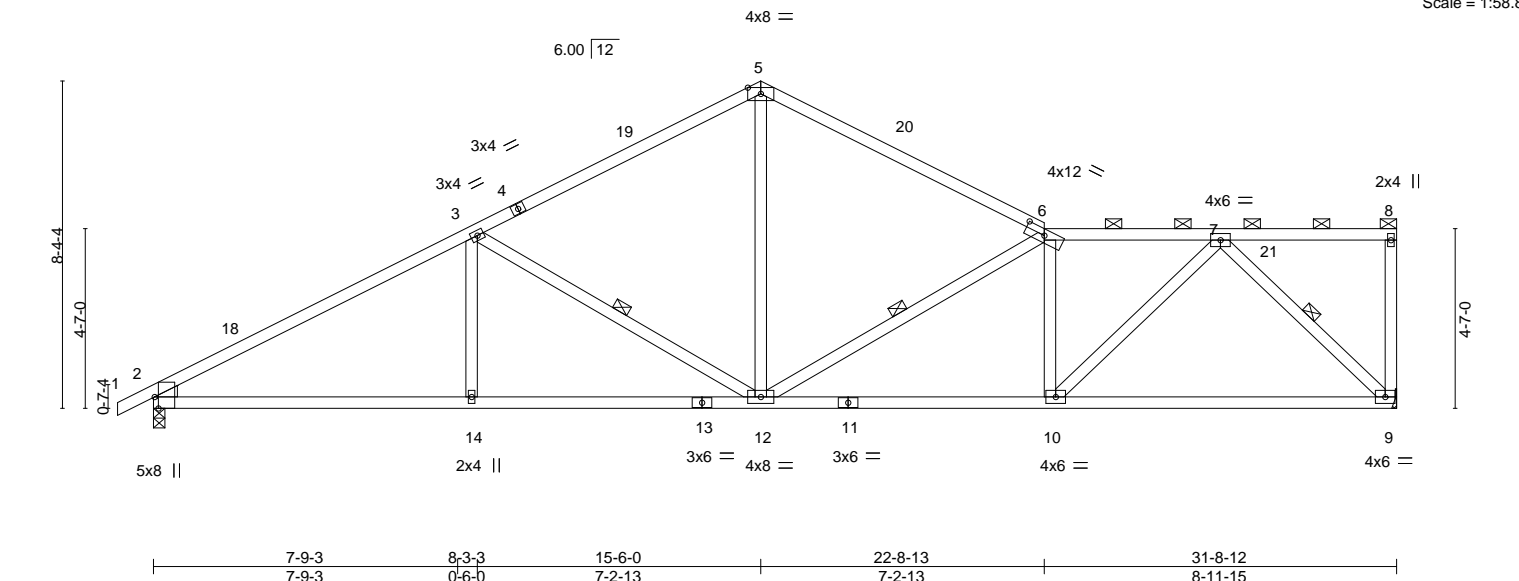
|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282466 |
| 3043214 | A5    | ROOF SPECIAL | 1   | 1   |                           |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:28 2021 Page 1  
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-0-11-0 7-9-3 8-3-3 15-6-0 22-8-13 27-2-13 31-8-12  
0-11-0 7-9-3 0-6-0 7-2-13 7-2-13 4-5-15 4-5-15

Scale = 1:58.8



| LOADING (psf) |      | SPACING-             |      | CSI.      |      | DEFL.    |                     | PLATES         |  | GRIP     |  |
|---------------|------|----------------------|------|-----------|------|----------|---------------------|----------------|--|----------|--|
| TCLL          | 25.0 | Plate Grip DOL       | 1.15 | TC        | 0.71 | Vert(LL) | -0.16 9-10 >999 240 | MT20           |  | 197/144  |  |
| TCDL          | 10.0 | Lumber DOL           | 1.15 | BC        | 0.68 | Vert(CT) | -0.34 9-10 >999 180 |                |  |          |  |
| BCLL          | 0.0  | Rep Stress Incr      | YES  | WB        | 0.35 | Horz(CT) | 0.09 9 n/a n/a      |                |  |          |  |
| BCDL          | 10.0 | Code IRC2018/TPI2014 |      | Matrix-AS |      |          |                     |                |  |          |  |
|               |      |                      |      |           |      |          |                     | Weight: 132 lb |  | FT = 20% |  |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-11 max.): 6-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 6-12, 7-9, 3-12

#### REACTIONS.

(size) 9=Mechanical, 2=0-3-8  
Max Horz 2=230(LC 11)  
Max Uplift 9=253(LC 13), 2=252(LC 12)  
Max Grav 9=1420(LC 1), 2=1486(LC 1)

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

TOP CHORD 2-3=-2413/389, 3-5=-1723/363, 5-6=-1719/342, 6-7=-2116/375  
BOT CHORD 2-14=-455/2054, 12-14=-455/2054, 10-12=-390/2137, 9-10=-262/1244  
WEBS 5-12=-121/936, 6-12=-830/206, 6-10=-692/196, 7-10=-171/1223, 7-9=-1701/329, 3-14=0/300, 3-12=-766/288

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-3-1, Interior(1) 2-3-1 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=253, 2=252.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 16, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282467 |
| 3043214 | A6    | Roof Special | 1   | 1   | Job Reference (optional)  |           |

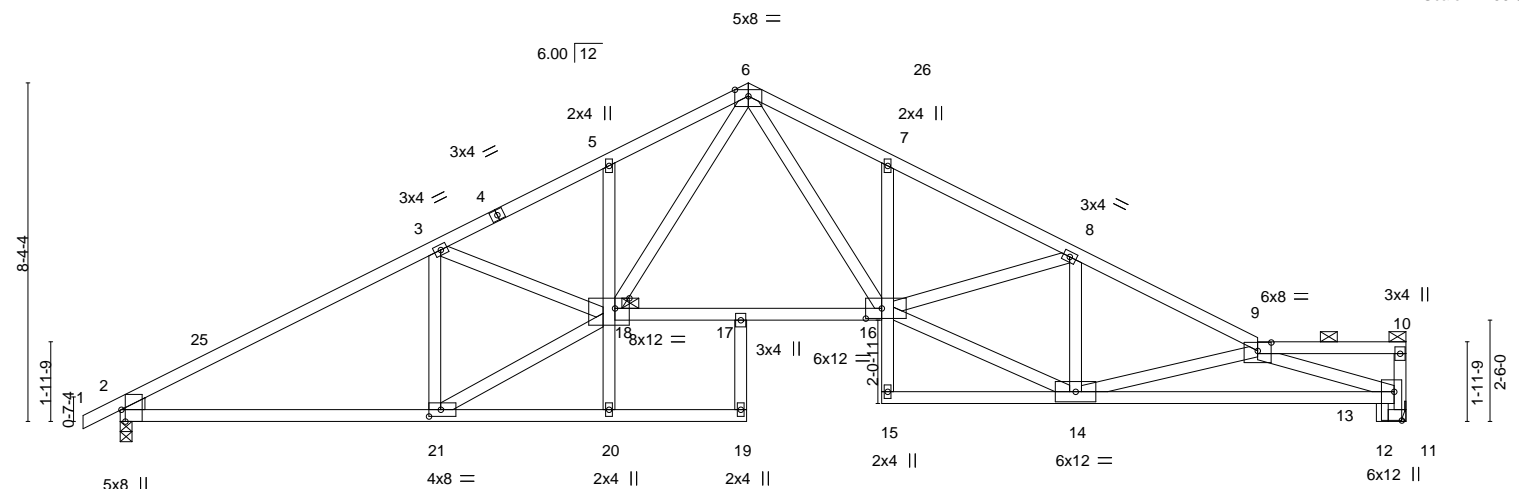
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:29 2021 Page 1

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|         |       |        |        |        |        |        |         |         |
|---------|-------|--------|--------|--------|--------|--------|---------|---------|
| -0-11-0 | 7-9-3 | 12-2-8 | 15-5-8 | 15-6-0 | 18-9-8 | 23-5-3 | 28-0-13 | 31-8-12 |
| 0-11-0  | 7-9-3 | 4-5-5  | 3-3-0  | 0-0-8  | 3-3-8  | 4-7-11 | 4-7-11  | 3-7-15  |

Scale = 1:56.9



|                       |  |        |        |        |        |         |        |         |
|-----------------------|--|--------|--------|--------|--------|---------|--------|---------|
|                       | 7-9-3  | 12-2-8 | 15-5-8 | 18-9-8 | 23-5-3 | 28-0-13 | 31-0-0 | 31-8-12 |
|                       | 7-9-3  | 4-5-5  | 3-3-0  | 3-4-0  | 4-7-11 | 4-7-11  | 2-11-3 | 0-8-12  |
| Plate Offsets (X,Y)-- | [2:0-3-8,Edge], [9:0-4-0,0-2-8], [11:0-8-8,0-2-4], [16:0-4-12,0-3-0], [18:0-4-4,0-3-0], [21:0-3-8,0-2-0] |        |        |        |        |         |        |         |

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc)    | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.51   | Vert(LL) | -0.28 16-17 | >999   | 240 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.93   | Vert(CT) | -0.54 16-17 | >703   | 180 |                |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.93   | Horz(CT) | 0.26 11     | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |             |        |     | Weight: 153 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-10.  
BOT CHORD Rigid ceiling directly applied.  
JOINTS 1 Brace at Jt(s): 10, 18

#### REACTIONS.

(size) 11=Mechanical, 2=0-3-8  
Max Horz 2=155(LC 11)  
Max Uplift 11=236(LC 13), 2=253(LC 12)  
Max Grav 11=1429(LC 1), 2=1486(LC 1)

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

TOP CHORD 2-3=2408/388, 3-5=3114/539, 5-6=3075/607, 6-7=3222/621, 7-8=3240/561,  
8-9=2781/434, 11-13=1374/230  
BOT CHORD 2-21=378/2048, 17-18=251/1972, 16-17=267/2013, 7-16=271/153, 13-14=620/3421  
WEBS 3-21=1008/233, 8-14=667/168, 14-16=392/2642, 8-16=43/405, 9-14=1019/278,  
9-13=3472/650, 18-21=415/2281, 3-18=61/705, 6-16=339/1565, 6-18=317/1365

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-3-1, Interior(1) 2-3-1 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=236, 2=253.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 16, 2021

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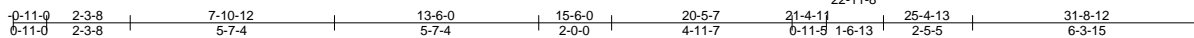
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282468 |
| 3043214 | A7    | Roof Special | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:31 2021 Page 1  
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4x8 =

Scale = 1:63.2

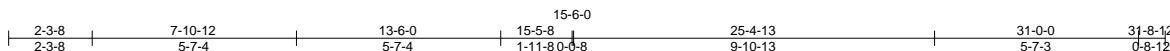
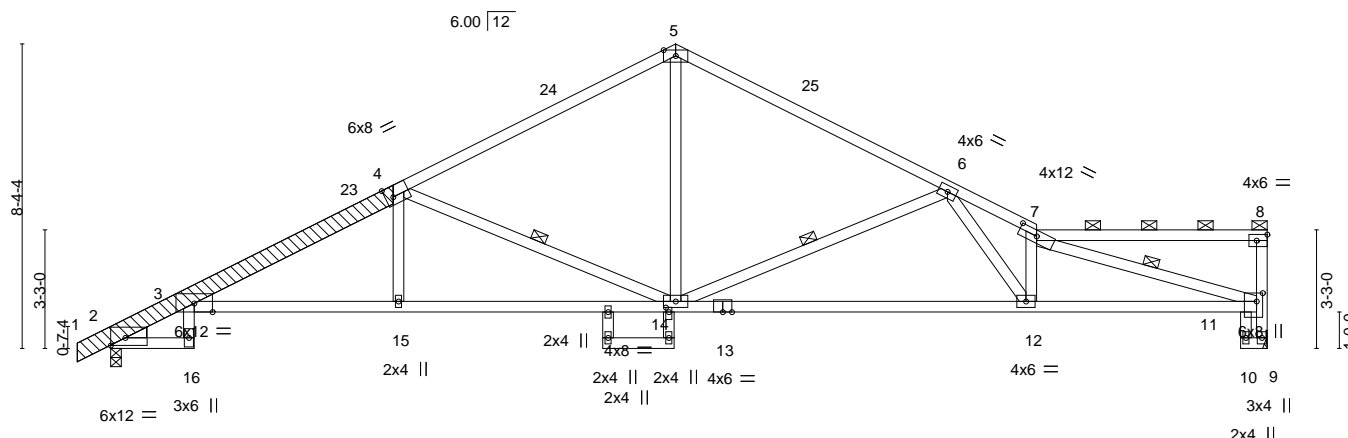


Plate Offsets (X,Y)-- [2:Edge,0-2-8], [4:0-2-8,Edge], [7:0-6-0,0-1-14], [8:Edge,0-2-0], [11:0-2-12,0-2-0], [14:0-1-8,0-1-0]

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc)    | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.72   | Vert(LL) | -0.34 3-15  | >999   | 240 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.88   | Vert(CT) | -0.76 12-14 | >502   | 180 |                |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.81   | Horz(CT) | 0.43 9      | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |             |        |     |                |          |
|               |                      |       |           |          |             |        |     | Weight: 154 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
1-4: 2x6 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
3-13: 2x4 SPF 1650F 1.5E  
WEBS 2x4 SPF No.2  
OTHERS 2x6 SPF 2100F 1.8E  
LBR SCAB 1-4 2x6 SPF 2100F 1.8E one side  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 7-11, 4-14, 6-14

#### REACTIONS.

(size) 9=Mechanical, 2=0-3-8  
Max Horz 2=193(LC 11)  
Max Uplift 9=241(LC 13), 2=253(LC 12)  
Max Grav 9=1429(LC 1), 2=1486(LC 1)

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

TOP CHORD 3-21=823/166, 3-4=2981/504, 4-5=1973/369, 5-6=1957/377, 6-7=3932/601, 9-11=1352/232  
BOT CHORD 3-16=77/367, 3-15=555/2791, 14-15=551/2790, 12-14=491/2735, 11-12=572/3547  
WEBS 7-12=927/194, 7-11=3572/528, 5-14=135/1142, 4-14=1237/407, 6-14=1193/357, 6-12=138/1308

#### NOTES-

- 1) Attached 9-11-0 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-5 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-4-13; starting at 7-8-12 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-12, Interior(1) 2-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=241, 2=253.
- 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 16, 2021

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**MiTek**  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                |             |                             |          |          |  |
|----------------|-------------|-----------------------------|----------|----------|--|
| Job<br>3043214 | Truss<br>A8 | Truss Type<br>COMMON GIRDER | Qty<br>1 | Ply<br>2 | SUMMIT/COBEY CREEK #23/MO<br>I49282469 |
|----------------|-------------|-----------------------------|----------|----------|--|

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

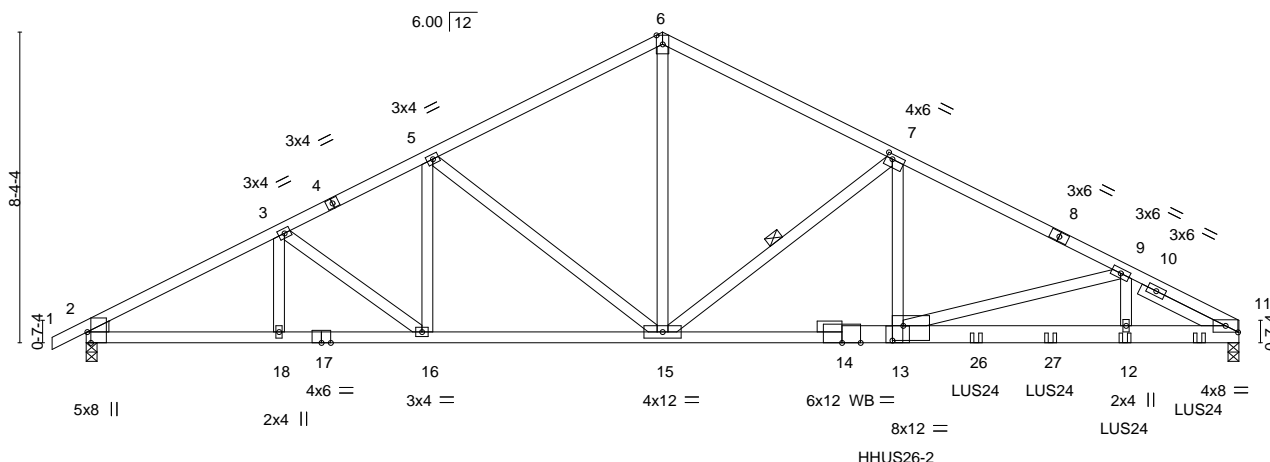
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:34 2021 Page 1

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|        |       |         |        |        |         |         |         |        |
|--------|-------|---------|--------|--------|---------|---------|---------|--------|
| 0-11-0 | 5-2-3 | 9-2-2   | 10-4-2 | 15-6-0 | 21-9-14 | 25-9-13 | 27-11-9 | 31-0-0 |
| 0-11-0 | 5-2-3 | 3-11-14 | 1-2-0  | 5-1-14 | 6-3-14  | 3-11-14 | 2-1-13  | 3-0-7  |

4x6 ||

Scale = 1:62.0



|       |         |        |        |         |         |         |        |
|-------|---------|--------|--------|---------|---------|---------|--------|
| 5-2-3 | 9-2-2   | 10-4-2 | 15-6-0 | 21-9-14 | 25-9-13 | 27-11-9 | 31-0-0 |
| 5-2-3 | 3-11-14 | 1-2-0  | 5-1-14 | 6-3-14  | 3-11-14 | 2-1-13  | 3-0-7  |

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

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc)    | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.94   | Vert(LL) | -0.21 12-13 | >999   | 240 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.90   | Vert(CT) | -0.38 12-13 | >966   | 180 |                |          |
| BCLL 0.0      | Rep Stress Incr      | NO    | WB 0.59   | Horz(CT) | 0.11 11     | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-MS |          |             |        |     | Weight: 293 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF 1650F 1.5E \*Except\*  
 11-14: 2x6 SP 2400F 2.0E  
 WEBS 2x4 SPF No.2  
 OTHERS 2x4 SPF No.2  
 WEDGE  
 Left: 2x4 SPF No.2  
 SLIDER Right 2x4 SPF No.2 2-6-0

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 7-15

#### REACTIONS.

(size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=154(LC 8)  
 Max Uplift 2=469(LC 8), 11=975(LC 9)  
 Max Grav 2=2739(LC 1), 11=5779(LC 1)

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

TOP CHORD 2-3=-4901/817, 3-5=-4831/831, 5-6=-4375/782, 6-7=-4378/784, 7-9=-8671/1463,  
 9-11=-10173/1724  
 BOT CHORD 2-18=-792/4267, 16-18=-792/4267, 15-16=-736/4309, 13-15=-1179/7707,  
 12-13=-1475/8876, 11-12=-1475/8876  
 WEBS 6-15=-560/3410, 7-15=-4935/973, 5-15=-638/275, 7-13=-704/4449, 9-13=-1259/308,  
 9-12=-207/1326, 5-16=-57/259

#### NOTES-

- 2-ply truss to be connected together as follows:  
 Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-4-0 oc.  
 Bottom chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-3-0 oc.  
 Web connected with WS3 as follows: 2x4 - 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=469, 11=975.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HHUS26-2 (14-16d Girder, 6-16d Truss) or equivalent at 21-9-14 from the left end to connect truss(es) to back face of bottom chord.

Continued on page 2



December 16, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

|         |       |               |     |     |                           |           |
|---------|-------|---------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type    | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | I49282469 |
| 3043214 | A8    | COMMON GIRDER | 1   | 2   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s Aug 16 2021 MiTek Industries, Inc.
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Page 2
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- NOTES-**
- 9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 23-11-4 from the left end to 29-11-4 to connect truss(es) to back face of bottom chord.
- 10) Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-6=-70, 6-11=-70, 19-22=-20

Concentrated Loads (lb)

Vert: 13=-3416(B) 12=-565(B) 24=-566(B) 26=-565(B) 27=-565(B)

|                |             |                      |          |          |  |
|----------------|-------------|----------------------|----------|----------|--|
| Job<br>3043214 | Truss<br>A9 | Truss Type<br>COMMON | Qty<br>4 | Ply<br>1 | SUMMIT/COBEY CREEK #23/MO<br>149282470 |
|----------------|-------------|----------------------|----------|----------|--|

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

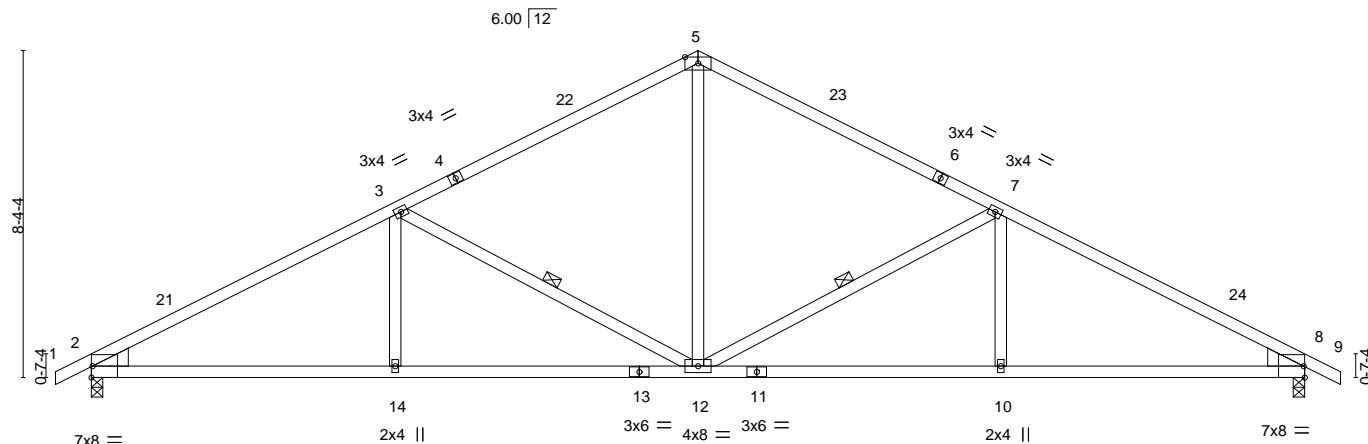
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:35 2021 Page 1

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0-11-0 7-9-3 15-6-0 23-2-13 31-0-0 31-11-0  
0-11-0 7-9-3 7-8-13 7-8-13 7-9-3 0-11-0

4x8 =

Scale = 1:58.9



|                      |                       |                  |                                  |                 |             |
|----------------------|-----------------------|------------------|----------------------------------|-----------------|-------------|
|                      | 7-9-3<br>7-9-3        | 15-6-0<br>7-8-13 | 23-2-13<br>7-8-13                | 31-0-0<br>7-9-3 |             |
| <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 25.0            | Plate Grip DOL 1.15   | TC 0.56          | Vert(LL) -0.13 10-12 >999 240    | MT20            | 197/144     |
| TCDL 10.0            | Lumber DOL 1.15       | BC 0.62          | Vert(CT) -0.27 10-12 >999 180    |                 |             |
| BCLL 0.0             | Rep Stress Incr YES   | WB 0.28          | Horz(CT) 0.10 8 n/a n/a          |                 |             |
| BCDL 10.0            | Code IRC2018/TPI2014  | Matrix-AS        |                                  | Weight: 118 lb  | FT = 20%    |

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

WEDGE

Left: 2x6 SPF No.2 , Right: 2x6 SPF No.2

#### BRACING-

TOP CHORD

Structural wood sheathing directly applied.

BOT CHORD

Rigid ceiling directly applied.

WEBS

1 Row at midpt 7-12, 3-12

#### REACTIONS.

(size) 2=0-3-8, 8=0-3-8

Max Horz 2=145(LC 12)

Max Uplift 2=251(LC 12), 8=251(LC 13)

Max Grav 2=1459(LC 1), 8=1459(LC 1)

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

TOP CHORD 2-3=-2378/386, 3-5=-1675/349, 5-7=-1675/349, 7-8=-2378/386

BOT CHORD 2-14=-378/2028, 12-14=-378/2028, 10-12=-242/2028, 8-10=-242/2028

WEBS 5-12=-108/862, 7-12=-773/295, 7-10=0/291, 3-12=-773/294, 3-14=0/291

#### NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-2-3, Interior(1) 2-2-3 to 15-6-0, Exterior(2R) 15-6-0 to 18-7-3, Interior(1) 18-7-3 to 31-11-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=251, 8=251.

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

6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 16, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

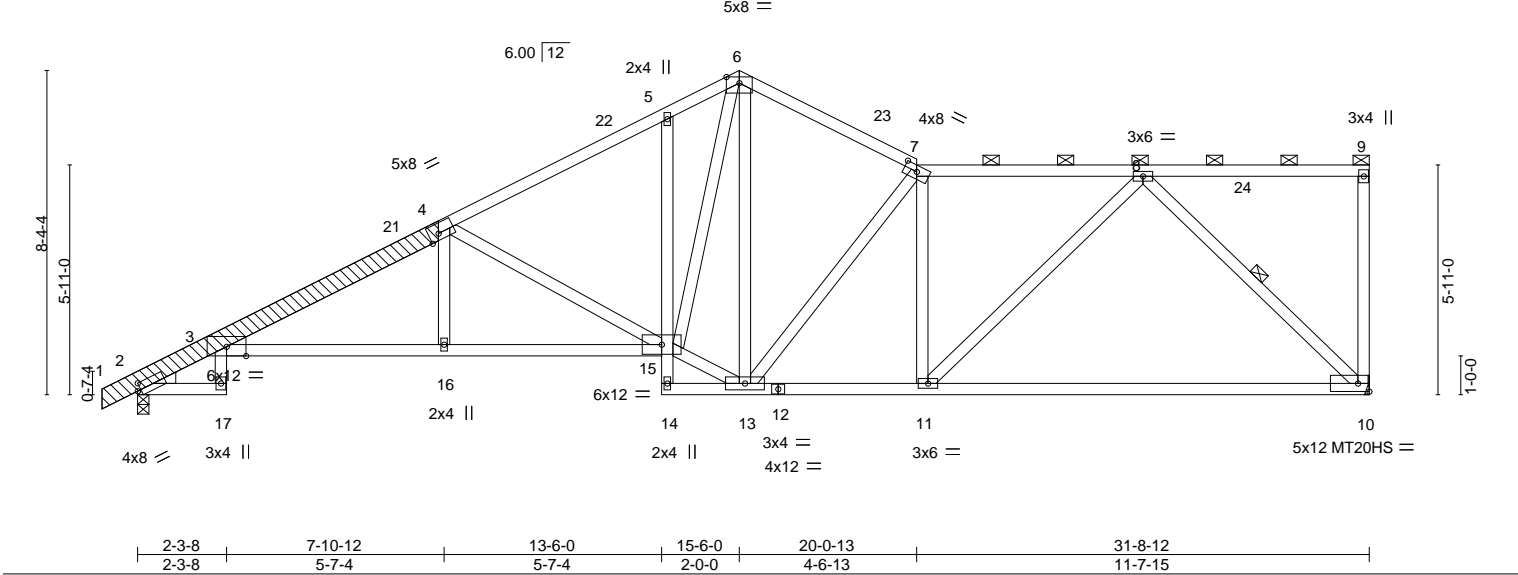
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Chesterfield, MO 63017

|         |       |              |     |     |                           |
|---------|-------|--------------|-----|-----|---------------------------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO |
| 3043214 | A10   | Roof Special | 1   | 1   | 149282471                 |

|                                       |       |                            |        |  |         |          |         |
|---------------------------------------|-------|----------------------------|--------|--|---------|----------|---------|
| Builders FirstSource (Valley Center), |       | Valley Center, KS - 67147, |        | 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:09 2021 Page 1 |         |          |         |
|                                       |       |                            |        | ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-xSCogADM5WLRyJwRhwx8pSRhpmN4Q85IUwDGYpy8jvC |         |          |         |
| -0-11-0                               | 2-3-8 | 7-10-12                    | 13-6-0 | 15-6-0   | 20-0-13 | 25-10-13 | 31-8-12 |
| 0-11-0                                | 2-3-8 | 5-7-4                      | 5-7-4  | 2-0-0  | 4-6-13  | 5-9-15   | 5-9-15  |
|                                       |       |                            |        |  |         |          |         |
| Scale = 1:59.4                        |       |                            |        |  |         |          |         |



|                       |      |   |      |             |      |                                  |       |       |      |               |                |             |  |
|-----------------------|------|---|------|-------------|------|----------------------------------|-------|-------|------|---------------|----------------|-------------|--|
| Plate Offsets (X,Y)-- |      | [2:0-1-2,0-2-3], [4:0-3-0,Edge], [7:0-4-0,0-1-14] |      |             |      |                                  |       |       |      |               |                |             |  |
| <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                  | 25.0 | Plate Grip DOL                                    | 1.15 | TC          | 0.68 | Vert(LL)                         | -0.44 | 10-11 | >857 | 240           | MT20           | 197/144     |  |
| TCDL                  | 10.0 | Lumber DOL  | 1.15 | BC          | 0.95 | Vert(CT)                         | -0.92 | 10-11 | >411 | 180           | MT20HS         | 148/108     |  |
| BCLL                  | 0.0  | Rep Stress Incr                                   | YES  | WB          | 0.81 | Horz(CT)                         | 0.35  | 10    | n/a  | n/a           |                |             |  |
| BCDL                  | 10.0 | Code IRC2018/TPI2014                              |      | Matrix-AS   |      |                                  |       |       |      |               | Weight: 178 lb | FT = 20%    |  |

|  |   |
|--|---|
| <b>LUMBER-</b>                           | <b>BRACING-</b>   |
| TOP CHORD 2x4 SPF No.2 *Except*          | TOP CHORD Structural wood sheathing directly applied, except end verticals, and |
| 1-4: 2x6 SPF 2100F 1.8E                  | 2-0-0 oc purlins (3-10-12 max.): 7-9.   |
| BOT CHORD 2x4 SPF No.2 *Except*          | BOT CHORD Rigid ceiling directly applied.                                       |
| 3-15: 2x4 SPF 1650F 1.5E                 | WEBS 1 Row at midpt 8-10  |
| WEBS 2x4 SPF No.2                        |   |
| OTHERS 2x6 SPF 2100F 1.8E                |   |
| LBR SCAB 1-4 2x6 SPF 2100F 1.8E one side |   |
| WEDGE                                    |   |
| Left: 2x4 SP No.3                        |   |

|                   |  |
|-------------------|--|
| <b>REACTIONS.</b> | (size) 10=Mechanical, 2=0-3-8          |
|                   | Max Horz 2=270(LC 11)                  |
|                   | Max Uplift 10=265(LC 13), 2=252(LC 12) |
|                   | Max Grav 10=1420(LC 1), 2=1486(LC 1)   |

|                |  |
|----------------|--|
| <b>FORCES.</b> | (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.                                 |
| TOP CHORD      | 3-19=-725/153, 3-4=-2961/481, 4-5=-2135/394, 5-6=-2016/439, 6-7=-1664/365, 7-8=-1868/354                     |
| BOT CHORD      | 3-16=-670/2762, 15-16=-666/2763, 11-13=-377/1878, 10-11=-283/1189  |
| WEBS           | 4-15=-1082/318, 7-11=-459/188, 7-13=-759/149, 8-11=-126/953, 8-10=-1618/346, 13-15=-335/1459, 6-15=-363/1481 |

- NOTES-**
- 1) Attached 9-11-0 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-5 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-4-13; starting at 7-8-12 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
  - 2) Unbalanced roof live loads have been considered for this design.
  - 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-12, Interior(1) 2-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) All plates are MT20 plates unless otherwise indicated.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=265, 2=252.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 16,2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

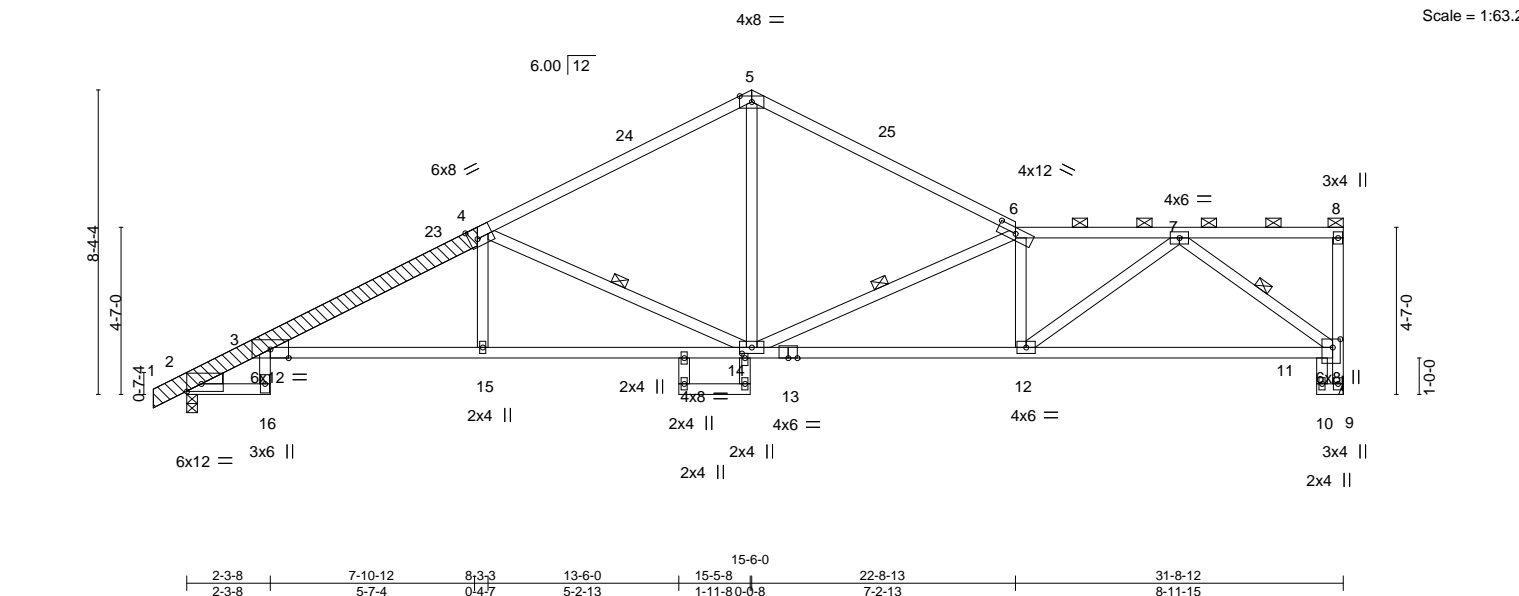
|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282472 |
| 3043214 | A11   | Roof Special | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:4rXHhD3\_rBCgQSIY2gdJuzGwv6-trKZ5sFcc7c8o03polZcutX\_aa45u87bxElNciy8jvA

0-11-0 2-3-8 7-10-12 8-3-3 13-6-0 15-6-0 22-8-13 27-2-13 31-8-12  
0-11-0 2-3-8 5-7-4 0-4-7 5-2-13 2-0-0 7-2-13 4-5-15 4-5-15

Scale = 1:63.2



|                       |                      |  |           |          |            |        |     |                |          |
|-----------------------|----------------------|--|-----------|----------|------------|--------|-----|----------------|----------|
| Plate Offsets (X,Y)-- |                      | [2:Edge,0-2-8], [4:0-2-12,Edge], [6:0-6-0,0-1-14], [11:0-2-12,0-2-8], [14:0-1-8,0-1-0] |           |          |            |        |     |                |          |
| LOADING (psf)         | SPACING-             | 2-0-0  | CSI.      | DEFL.    | in (loc)   | l/defl | L/d | PLATES         | GRIP     |
| TCLL 25.0             | Plate Grip DOL       | 1.15   | TC 0.79   | Vert(LL) | -0.33 3-15 | >999   | 240 | MT20           | 197/144  |
| TCDL 10.0             | Lumber DOL           | 1.15   | BC 0.85   | Vert(CT) | -0.61 3-15 | >624   | 180 |                |          |
| BCLL 0.0              | Rep Stress Incr      | YES  | WB 0.40   | Horz(CT) | 0.41 9     | n/a    | n/a |                |          |
| BCDL 10.0             | Code IRC2018/TPI2014 |  | Matrix-AS |          |            |        |     | Weight: 158 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
1-4: 2x6 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
3-13: 2x4 SPF 1650F 1.5E  
WEBS 2x4 SPF No.2  
OTHERS 2x6 SPF 2100F 1.8E  
LBR SCAB 1-4 2x6 SPF 2100F 1.8E one side  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-3-11 max.): 6-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 7-11, 6-14, 4-14

#### REACTIONS.

(size) 9=Mechanical, 2=0-3-8  
Max Horz 2=231(LC 11)  
Max Uplift 9=249(LC 13), 2=252(LC 12)  
Max Grav 9=1429(LC 1), 2=1486(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-21=823/167, 3-4=2945/490, 4-5=1957/374, 5-6=1945/373, 6-7=2743/443, 9-11=1352/240  
BOT CHORD 3-16=85/367, 3-15=610/2745, 14-15=605/2746, 12-14=499/2771, 11-12=338/1620  
WEBS 6-12=685/197, 7-12=204/1406, 7-11=1969/379, 5-14=135/1150, 6-14=1252/287, 4-14=1213/388

#### NOTES-

- 1) Attached 10-2-0 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except: starting at 0-0-5 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-4-13; starting at 7-11-12 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-12, Interior(1) 2-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=249, 2=252.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 16, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282473 |
| 3043214 | A12   | Roof Special | 1   | 1   |                           |           |

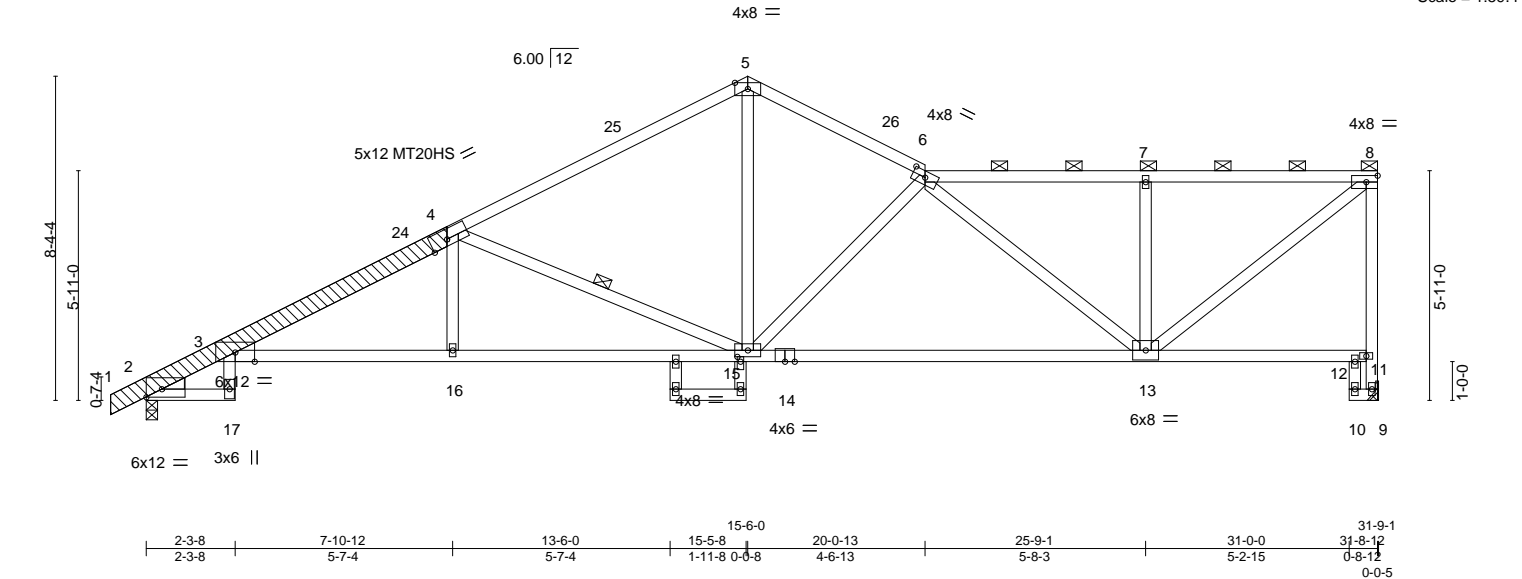
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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0-11-0 2-3-8 7-10-12 10-11-3 13-6-0 15-6-0 20-0-13 25-9-1 31-8-12  
0-11-0 2-3-8 5-7-4 3-0-7 2-6-13 2-0-0 4-6-13 5-8-3 5-11-11

Scale = 1:59.4



| Plate Offsets (X,Y)-- |                      | [2:Edge,0-2-8], [4:0-5-4,Edge], [6:0-4-0,0-1-14], [15:0-1-8,0-1-0] |           |          |          |        |      |        |        |                |          |
|-----------------------|----------------------|--|-----------|----------|----------|--------|------|--------|--------|----------------|----------|
| LOADING (psf)         | SPACING-             | 2-0-0  | CSI.      | DEFL.    | in (loc) | l/defl | L/d  | PLATES | GRIP   |                |          |
| TCLL 25.0             | Plate Grip DOL       | 1.15   | TC 0.80   | Vert(LL) | -0.32    | 3-16   | >999 | 240    | MT20   | 197/144        |          |
| TCDL 10.0             | Lumber DOL           | 1.15   | BC 0.84   | Vert(CT) | -0.65    | 13-15  | >580 | 180    | MT20HS | 148/108        |          |
| BCLL 0.0              | Rep Stress Incr      | YES  | WB 0.83   | Horz(CT) | 0.36     | 9      | n/a  | n/a    |        |                |          |
| BCDL 10.0             | Code IRC2018/TPI2014 |  | Matrix-AS |          |          |        |      |        |        |                |          |
|                       |                      |  |           |          |          |        |      |        |        | Weight: 162 lb | FT = 20% |

| LUMBER-            |   | BRACING-  |  |
|--------------------|---|-----------|--|
| TOP CHORD          | 2x4 SPF No.2 *Except*<br>1-4: 2x6 SPF 2100F 1.8E  | TOP CHORD | Structural wood sheathing directly applied, except end verticals, and<br>2-0-0 oc purlins (4-3-9 max.): 6-8. |
| BOT CHORD          | 2x4 SPF No.2 *Except*<br>3-14: 2x4 SPF 1650F 1.5E | BOT CHORD | Rigid ceiling directly applied.  |
| WEBS               | 2x4 SPF No.2                                      | WEBS      | 1 Row at midpt 4-15  |
| OTHERS             | 2x6 SPF 2100F 1.8E                                |           |  |
| LBR SCAB           | 1-4 2x6 SPF 2100F 1.8E one side                   |           |  |
| WEDGE              |   |           |  |
| Left: 2x4 SPF No.2 |   |           |  |

| REACTIONS. |                            |
|------------|----------------------------|
| (size)     | 9=Mechanical, 2=0-3-8      |
| Max Horz   | 2=270(LC 11)               |
| Max Uplift | 9=265(LC 13), 2=252(LC 12) |
| Max Grav   | 9=1420(LC 1), 2=1486(LC 1) |

| FORCES.  |   |
|--|---|
| (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. |   |
| TOP CHORD  | 3-22=823/169, 3-4=2990/506, 4-5=1967/366, 5-6=1905/363, 6-7=1540/283,<br>7-8=1537/282, 9-11=1368/256, 8-11=1377/274 |
| BOT CHORD  | 3-17=95/367, 3-16=692/2800, 15-16=688/2800, 13-15=480/2210  |
| WEBS   | 6-13=871/219, 7-13=470/197, 8-13=326/1926, 5-15=167/1253, 6-15=824/229,<br>4-15=1259/413                            |

- NOTES-**
- 1) Attached 9-11-0 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-5 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-4-13; starting at 7-8-12 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
  - 2) Unbalanced roof live loads have been considered for this design.
  - 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-12, Interior(1) 2-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 18-8-1, Interior(1) 18-8-1 to 31-7-0 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
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) All plates are MT20 plates unless otherwise indicated.
  - 6) All plates are 2x4 MT20 unless otherwise indicated.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=265, 2=252.
  - 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum continuous sheathing be applied directly to the bottom chord.



December 16, 2021

|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | I49282473 |
| 3043214 | A12   | Roof Special | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
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**NOTES-**  
 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

|                |              |                            |          |          |  |
|----------------|--------------|----------------------------|----------|----------|--|
| Job<br>3043214 | Truss<br>A13 | Truss Type<br>Roof Special | Qty<br>1 | Ply<br>1 | SUMMIT/COBEY CREEK #23/MO<br>149282474 |
|----------------|--------------|----------------------------|----------|----------|--|

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:16 2021 Page 1

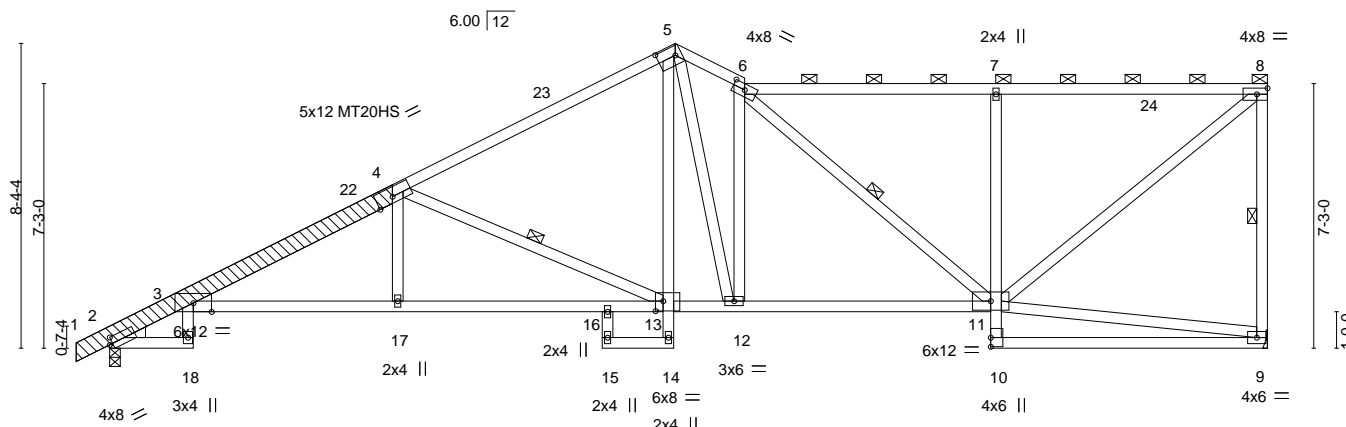
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Job Reference (optional)

0-11-0 2-3-8 7-10-12 13-6-0 15-6-0 17-4-13 24-1-12 31-8-12  
0-11-0 2-3-8 5-7-4 5-7-4 2-0-0 1-10-13 6-8-15 7-7-0

6x8 ≡

Scale = 1:63.1



2-3-8 7-10-12 13-6-0 15-5-8 17-4-13 24-1-12 31-8-12  
2-3-8 5-7-4 5-7-4 1-11-8 1-11-5 6-8-15 7-7-0

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

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.71   | Vert(LL) | -0.31 | 3-17  | >999   | 240 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.87   | Vert(CT) | -0.57 | 3-17  | >662   | 180 | MT20HS         | 148/108  |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.55   | Horz(CT) | 0.35  | 9     | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |       |       |        |     |                |          |
|               |                      |       |           |          |       |       |        |     | Weight: 185 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
1-4: 2x6 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
3-13: 2x4 SPF 1650F 1.5E  
WEBS 2x4 SPF No.2  
OTHERS 2x6 SPF 2100F 1.8E  
LBR SCAB 1-4 2x6 SPF 2100F 1.8E one side  
WEDGE  
Left: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-11-4 max.): 6-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 8-9, 6-11, 4-13

#### REACTIONS.

(size) 9=Mechanical, 2=0-3-8  
Max Horz 2=307(LC 11)  
Max Uplift 9=281(LC 13), 2=250(LC 12)  
Max Grav 9=1420(LC 1), 2=1486(LC 1)

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

TOP CHORD 3-20=-725/133, 3-4=-2995/494, 4-5=-1971/337, 5-6=-2064/397, 6-7=-1409/286,  
7-8=-1402/285, 8-9=-1344/313  
BOT CHORD 3-17=-747/2803, 16-17=-742/2803, 13-16=-722/2787, 5-13=-109/548, 12-13=-435/1629,  
11-12=-458/1870, 7-11=-580/244  
WEBS 6-12=-732/212, 6-11=-616/158, 8-11=-362/1775, 5-12=-177/866, 4-13=-1261/393

#### NOTES-

- Attached 9-11-0 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-5 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-4-13; starting at 7-8-12 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-12, Interior(1) 2-1-12 to 15-4-0, Exterior(2E) 15-4-0 to 17-4-13, Interior(1) 17-4-13 to 31-7-0 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.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=281, 2=250.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 16, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**MiTek**  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |                      |     |     |                           |           |
|---------|-------|----------------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type           | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282475 |
| 3043214 | A15   | COMMON SUPPORTED GAB | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center),

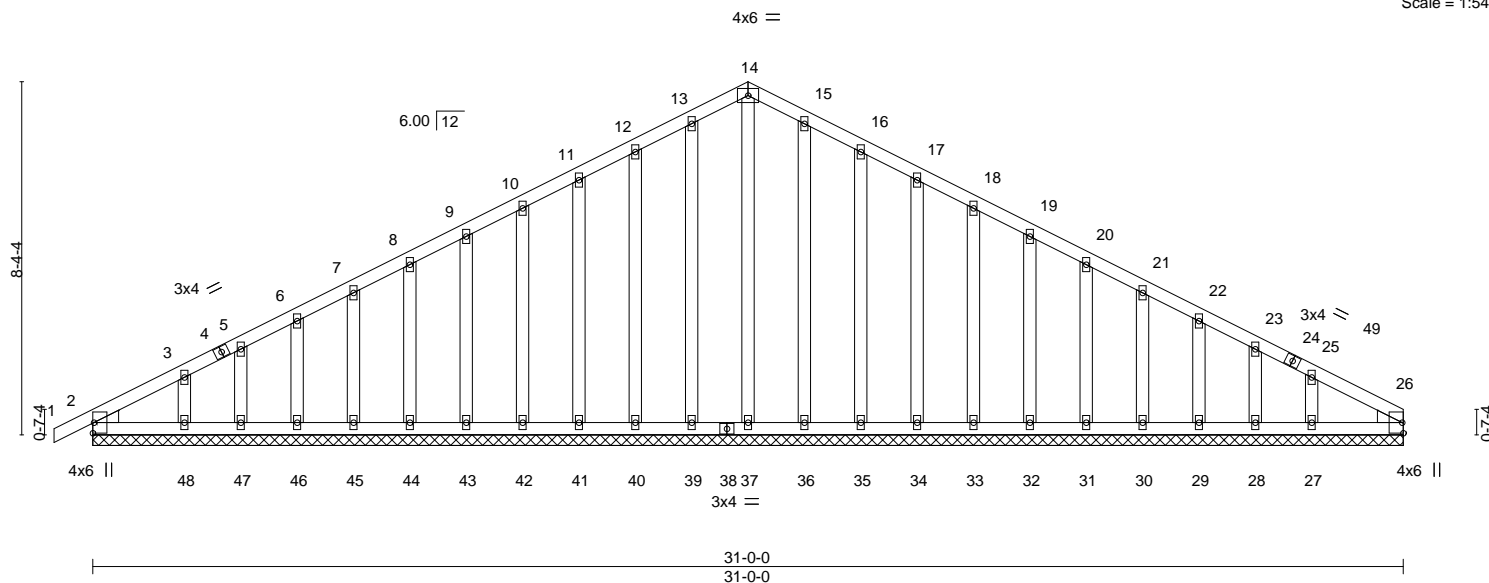
Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:18 2021 Page 1

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0-11-0 15-6-0 31-0-0  
0-11-0 15-6-0 15-6-0

Scale = 1:54.5



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.06  | Vert(LL) | -0.00    | 1      | n/r | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.04  | Vert(CT) | 0.00     | 1      | n/r |                |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.18  | Horz(CT) | 0.01     | 26     | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |          |          |        |     | Weight: 181 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

OTHERS 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2

#### BRACING-

TOP CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins.

BOT CHORD

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

#### REACTIONS.

All bearings 31-0-0.

(lb) - Max Horz 2=148(LC 16)

Max Uplift All uplift 100 lb or less at joint(s) 2, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27

Max Grav All reactions 250 lb or less at joint(s) 2, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26

#### FORCES.

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

TOP CHORD 13-14=-95/264, 14-15=-95/264

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-2-0, Exterior(2N) 2-2-0 to 15-6-0, Corner(3R) 15-6-0 to 18-7-3, Exterior(2N) 18-7-3 to 31-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27.
- 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 26.
- 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.



December 16, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

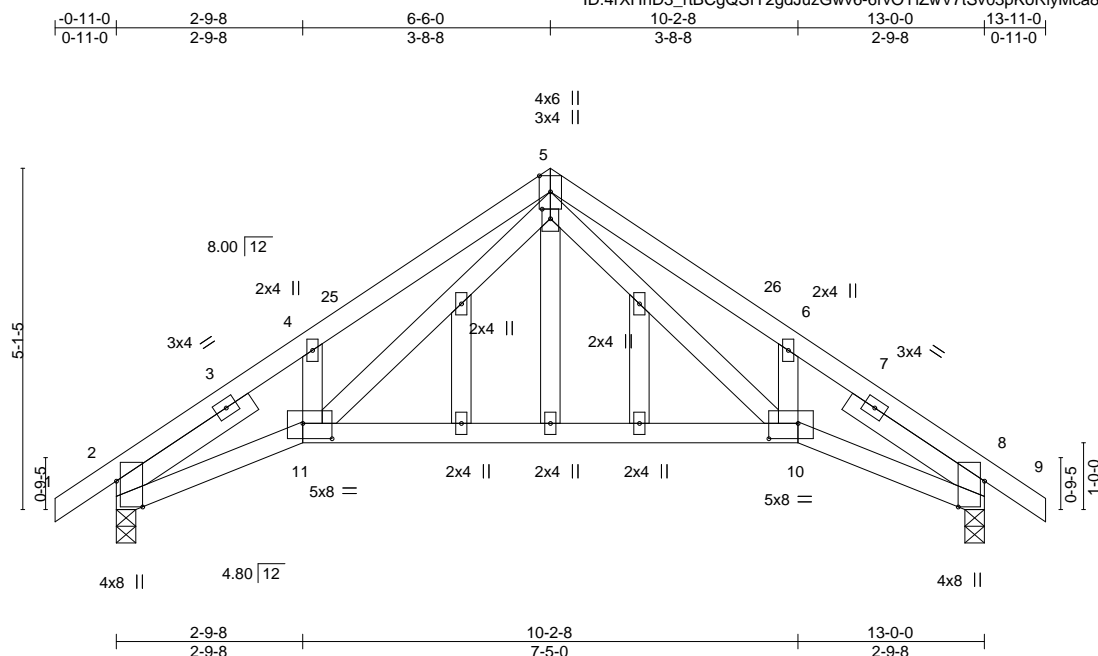
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|  |      |                       |      |             |      |                                  |                      |               |             |
|--|------|-----------------------|------|-------------|------|----------------------------------|----------------------|---------------|-------------|
| Plate Offsets (X,Y)-- [2:0-4-10,Edge], [5:0-1-12,0-1-8], [8:0-4-10,Edge], [10:0-5-4,0-2-12], [11:0-5-4,0-2-12] |      |                       |      |             |      |                                  |                      |               |             |
| <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   | 25.0 | Plate Grip DOL        | 1.15 | TC          | 0.20 | Vert(LL)                         | -0.11 10-11 >999 240 | MT20          | 197/144     |
| TCDL   | 10.0 | Lumber DOL            | 1.15 | BC          | 0.44 | Vert(CT)                         | -0.25 10-11 >623 180 |               |             |
| BCLL   | 0.0  | Rep Stress Incr       | YES  | WB          | 0.16 | Horz(CT)                         | -0.07 2 n/a n/a      |               |             |
| BCDL   | 10.0 | Code IRC2018/TPI2014  |      | Matrix-AS   |      |                                  |                      | Weight: 64 lb | FT = 20%    |

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

|                 |   |
|-----------------|---|
| <b>BRACING-</b> |   |
| TOP CHORD       | Structural wood sheathing directly applied. |
| BOT CHORD       | Rigid ceiling directly applied.             |

Weight: 64 lb      FT = 20%

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 8=-129(LC 10)  
 Max Uplift 2=-109(LC 12), 8=-109(LC 13)  
 Max Grav 2=649(LC 1), 8=649(LC 1)

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

|           |  |
|-----------|--|
| TOP CHORD | 2-4=-1215/234, 4-5=-1165/351, 5-6=-1165/343, 6-8=-1215/227 |
| BOT CHORD | 2-11=-126/1011, 10-11=-37/495, 8-10=-196/1060              |
| WEBS      | 5-10=-233/712, 5-11=-188/651                               |

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 13-11-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable studs spaced at 1'-4" oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=109, 8=109.
- 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 16, 2021

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

**WARNING:** - verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MM1/473 (rev. 3/19/2020) 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

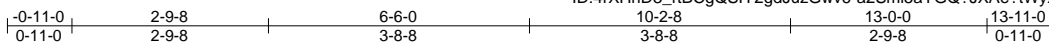


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|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282477 |
| 3043214 | B2    | ROOF SPECIAL | 1   | 1   | Job Reference (optional)  |           |

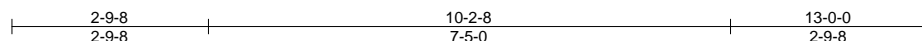
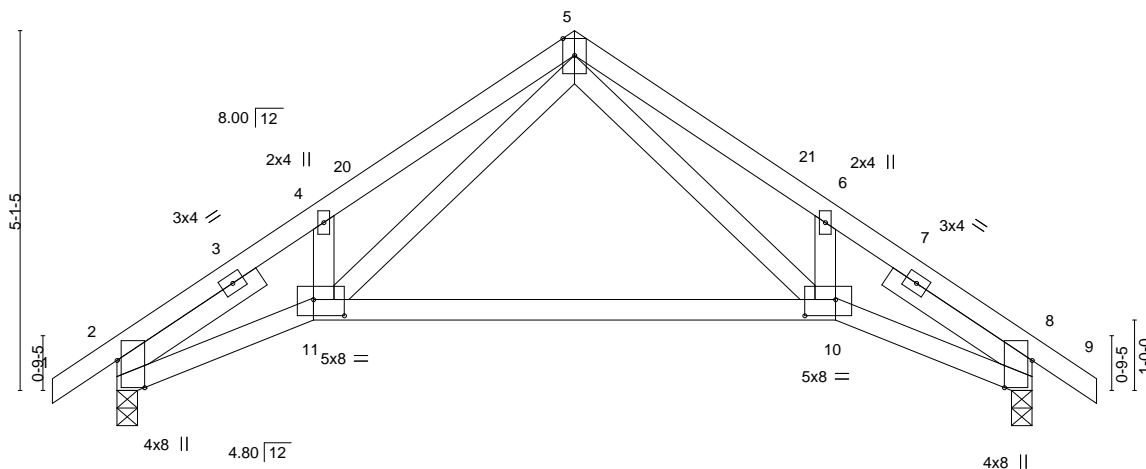
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:38 2021 Page 1  
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4x6 ||

Scale = 1:32.7



|  |      |                       |      |             |      |                                  |                      |               |             |
|--|------|-----------------------|------|-------------|------|----------------------------------|----------------------|---------------|-------------|
| Plate Offsets (X,Y)-- [2:0-4-10,Edge], [8:0-4-10,Edge], [10:0-5-4,0-2-12], [11:0-5-4,0-2-12] |      |                       |      |             |      |                                  |                      |               |             |
| <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   | 25.0 | Plate Grip DOL        | 1.15 | TC          | 0.20 | Vert(LL)                         | -0.11 10-11 >999 240 | MT20          | 197/144     |
| TCDL   | 10.0 | Lumber DOL            | 1.15 | BC          | 0.44 | Vert(CT)                         | -0.25 10-11 >623 180 |               |             |
| BCLL   | 0.0  | Rep Stress Incr       | YES  | WB          | 0.16 | Horz(CT)                         | 0.07 8 n/a n/a       |               |             |
| BCDL   | 10.0 | Code IRC2018/TPI2014  |      | Matrix-AS   |      |                                  |                      | Weight: 56 lb | FT = 20%    |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 8=0-3-8  
Max Horz 2=-129(LC 10)  
Max Uplift 2=-109(LC 12), 8=-109(LC 13)  
Max Grav 2=649(LC 1), 8=649(LC 1)

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

TOP CHORD 2-4=-1215/227, 4-5=-1165/343, 5-6=-1165/351, 6-8=-1215/234  
BOT CHORD 2-11=-196/1060, 10-11=-37/495, 8-10=-126/1011  
WEBS 5-10=-188/651, 5-11=-233/712

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 13-11-0 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.
- Bearing at joint(s) 2, 8 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 capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=109, 8=109.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 16, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



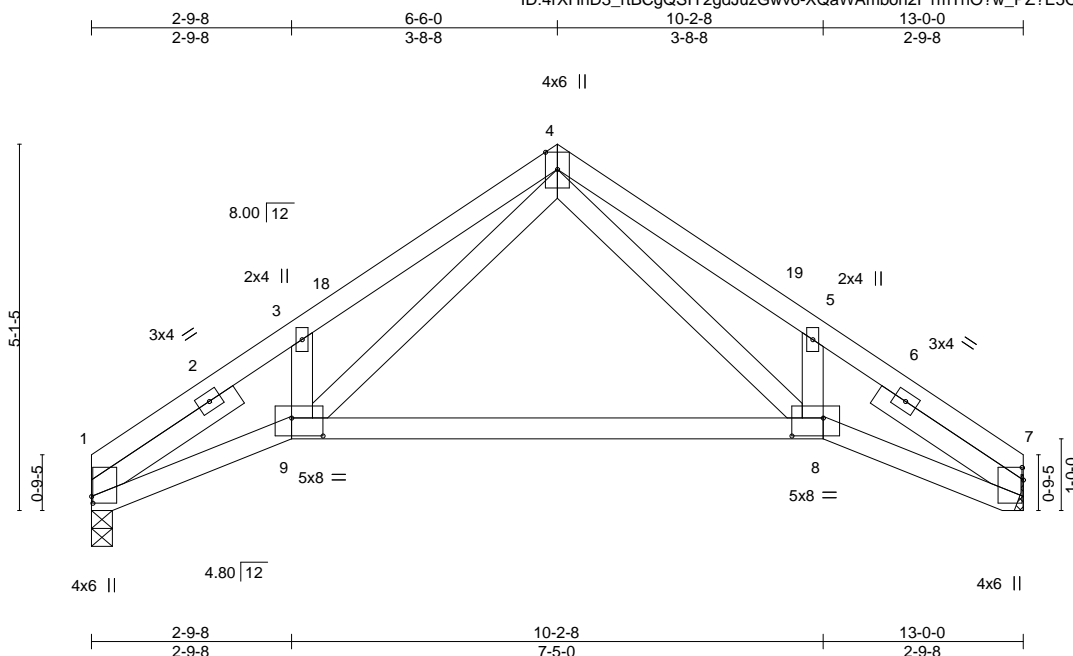
|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282478 |
| 3043214 | B3    | Roof Special | 4   | 1   |                           |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:40 2021 Page 1

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Scale: 3/8"=1'

| Plate Offsets (X,Y)-- [1:0-1-2,0-0-3], [7:0-2-2,0-0-3], [8:0-5-4,0-3-0], [9:0-5-4,0-3-0] |      |                       |      |             |      |                                  |       |     |      |                           |               |          |
|--|------|-----------------------|------|-------------|------|----------------------------------|-------|-----|------|---------------------------|---------------|----------|
| <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   | 25.0 | Plate Grip DOL        | 1.15 | TC          | 0.20 | Vert(LL)                         | -0.11 | 8-9 | >999 | 240                       | MT20          | 197/144  |
| TCDL   | 10.0 | Lumber DOL            | 1.15 | BC          | 0.44 | Vert(CT)                         | -0.25 | 8-9 | >623 | 180                       |               |          |
| BCLL   | 0.0  | Rep Stress Incr       | YES  | WB          | 0.16 | Horz(CT)                         | 0.07  | 7   | n/a  | n/a                       |               |          |
| BCDL   | 10.0 | Code IRC2018/TPI2014  |      | Matrix-AS   |      |                                  |       |     |      |                           | Weight: 53 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=0-3-8, 7=Mechanical  
 Max Horz 1=-113(LC 8)  
 Max Uplift 1=-88(LC 12), 7=-88(LC 13)  
 Max Grav 1=585(LC 1), 7=585(LC 1)

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

TOP CHORD 1-3=-1241/266, 3-4=-1193/379, 4-5=-1193/374, 5-7=-1241/262  
 BOT CHORD 1-9=-219/1069, 8-9=-51/503, 7-8=-171/1037  
 WEBS 4-8=-204/674, 4-9=-243/727

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 2-11-4, Interior(1) 2-11-4 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 13-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 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 capable of withstanding 100 lb uplift at joint(s) 1, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 16, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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 Chesterfield, MO 63017

**MiTek**  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |             |     |     |                           |           |
|---------|-------|-------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type  | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | I49282479 |
| 3043214 | B5    | Flat Girder | 1   | 2   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-4=-70, 5-8=-20
  - Concentrated Loads (lb)
    - Vert: 1=-2 9=-884 10=-884 11=-884 12=-884 13=-884 14=-889

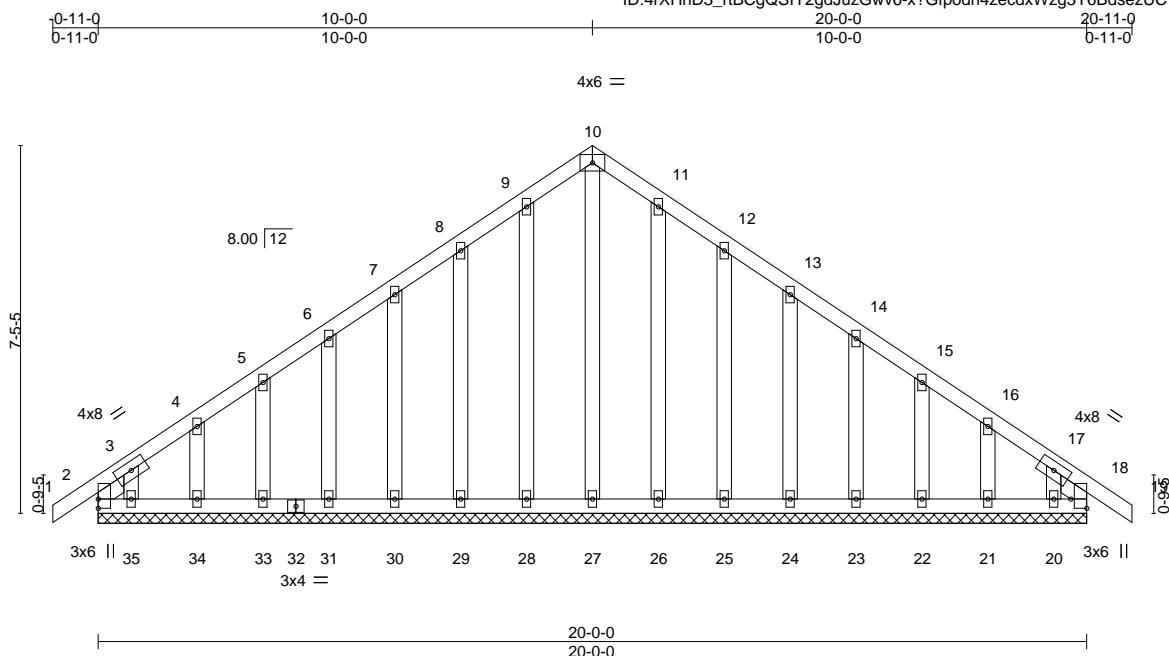
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| Plate Offsets (X,Y)-- [18;Edge,0-3-14] |      |                      |      |          |      |                           |       |    |     |     |                |          |
|--|------|----------------------|------|----------|------|---------------------------|-------|----|-----|-----|----------------|----------|
| LOADING (psf)                          |      | SPACING- 2-0-0       |      | CSI.     |      | DEFL. in (loc) l/defl L/d |       |    |     |     | PLATES         | GRIP     |
| TCLL                                   | 25.0 | Plate Grip DOL       | 1.15 | TC       | 0.05 | Vert(LL)                  | -0.00 | 18 | n/r | 120 | MT20           | 197/144  |
| TCDL                                   | 10.0 | Lumber DOL           | 1.15 | BC       | 0.03 | Vert(CT)                  | -0.00 | 19 | n/r | 120 |                |          |
| BCLL                                   | 0.0  | Rep Stress Incr      | YES  | WB       | 0.14 | Horz(CT)                  | 0.00  | 18 | n/a | n/a |                |          |
| BCDL                                   | 10.0 | Code IRC2018/TPI2014 |      | Matrix-S |      |                           |       |    |     |     | Weight: 116 lb | FT = 20% |

|                |   |                 |   |
|----------------|---|-----------------|---|
| <b>LUMBER-</b> |   | <b>BRACING-</b> |   |
| TOP CHORD      | 2x4 SPF No.2                                      | TOP CHORD       | Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD      | 2x4 SPF No.2                                      | BOT CHORD       | Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| OTHERS         | 2x4 SPF No.2                                      |                 |   |
| SLIDER         | Left 2x4 SPF No.2 0-8-7, Right 2x4 SPF No.2 0-8-7 |                 |   |

**REACTIONS.** All bearings 20-0-0.  
(lb) - Max Horz 2=190(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 28, 29, 30, 31, 33, 34, 26, 25, 24, 23, 18, 22, 21 except  
2=113(LC 8), 35=136(LC 12), 20=112(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 27, 28, 29, 30, 31, 33, 34, 35, 26, 25, 24, 23, 18, 22,  
21. 20

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-250/186

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 20-11-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 28, 29, 30, 31, 33, 34, 26, 25, 24, 23, 18, 22, 21 except (jt=lb) 2=113, 35=136, 20=112.
- 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.



December 16, 2021

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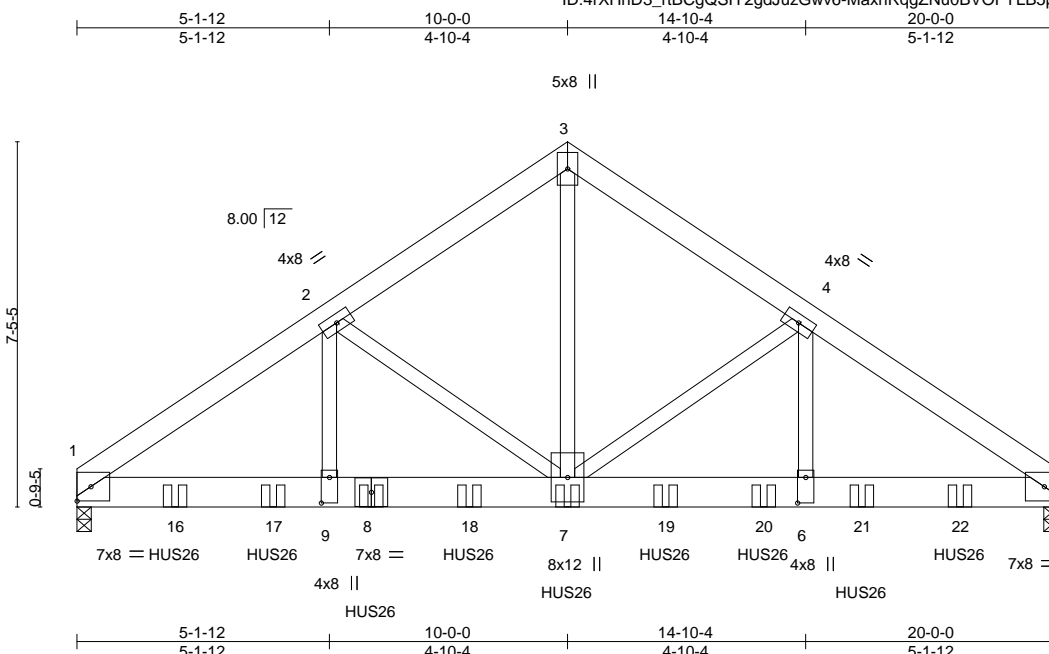
|                |             |                             |          |          |  |
|----------------|-------------|-----------------------------|----------|----------|--|
| Job<br>3043214 | Truss<br>B7 | Truss Type<br>COMMON GIRDER | Qty<br>1 | Ply<br>2 | SUMMIT/COBEY CREEK #23/MO<br>149282481 |
|----------------|-------------|-----------------------------|----------|----------|--|

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:46 2021 Page 1

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Scale = 1:47.0

|  |                      |       |             |              |          |                |             |
|--|----------------------|-------|-------------|--------------|----------|----------------|-------------|
| Plate Offsets (X,Y)-- [6:0-6-4,0-2-0], [9:0-6-4,0-2-0] |                      |       |             |              |          |                |             |
| <b>LOADING</b> (psf)                                   | <b>SPACING-</b>      | 2-0-0 | <b>CSI.</b> | <b>DEFL.</b> | in (loc) | l/defl         | L/d         |
| TCLL 25.0  | Plate Grip DOL       | 1.15  | TC 0.33     | Vert(LL)     | -0.10    | 7-9            | >999        |
| TCDL 10.0  | Lumber DOL           | 1.15  | BC 0.35     | Vert(CT)     | -0.18    | 7-9            | >999        |
| BCLL 0.0   | Rep Stress Incr      | NO    | WB 0.92     | Horz(CT)     | 0.04     | 5              | n/a         |
| BCDL 10.0  | Code IRC2018/TPI2014 |       | Matrix-MS   |              |          |                |             |
|  |                      |       |             |              |          | <b>PLATES</b>  | <b>GRIP</b> |
|  |                      |       |             |              |          | MT20           | 197/144     |
|  |                      |       |             |              |          | Weight: 266 lb | FT = 20%    |

#### LUMBER-

TOP CHORD 2x6 SPF No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=0-3-8, 5=0-3-8  
Max Horz 1=-174(LC 25)  
Max Uplift 1=-1310(LC 8), 5=-1317(LC 9)  
Max Grav 1=7222(LC 1), 5=7207(LC 1)

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

TOP CHORD 1-2=-10202/1875, 2-3=-7240/1419, 3-4=-7240/1419, 4-5=-10186/1883  
BOT CHORD 1-9=-1589/8397, 7-9=-1589/8397, 6-7=-1485/8383, 5-6=-1485/8383  
WEBS 3-7=-1433/7513, 4-7=-3008/673, 4-6=-540/3171, 2-7=-3025/664, 2-9=-530/3189

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.  
Webs connected as follows: 2x4 - 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1310, 5=1317.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 4-0-0 oc max. starting at 2-0-0 from the left end to 18-0-0 to connect truss(es) to back face of bottom chord.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 10-0-0 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
- 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



December 16, 2021

Continued on page 2

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|         |       |               |     |     |                           |
|---------|-------|---------------|-----|-----|---------------------------|
| Job     | Truss | Truss Type    | Qty | Ply | SUMMIT/COBEY CREEK #23/MO |
| 3043214 | B7    | COMMON GIRDER | 1   | 2   | I49282481                 |
|         |       |               |     |     | Job Reference (optional)  |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:46 2021 Page 2  
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**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-3=-70, 3-5=-70, 10-13=-20

Concentrated Loads (lb)

Vert: 8=-1409(B) 7=-1400(B) 16=-1409(B) 17=-1409(B) 18=-1400(B) 19=-1400(B) 20=-1400(B) 21=-1400(B) 22=-1400(B)



|                |             |                      |          |          |  |
|----------------|-------------|----------------------|----------|----------|--|
| Job<br>3043214 | Truss<br>B8 | Truss Type<br>COMMON | Qty<br>2 | Ply<br>1 | SUMMIT/COBEY CREEK #23/MO<br>149282482 |
|----------------|-------------|----------------------|----------|----------|--|

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

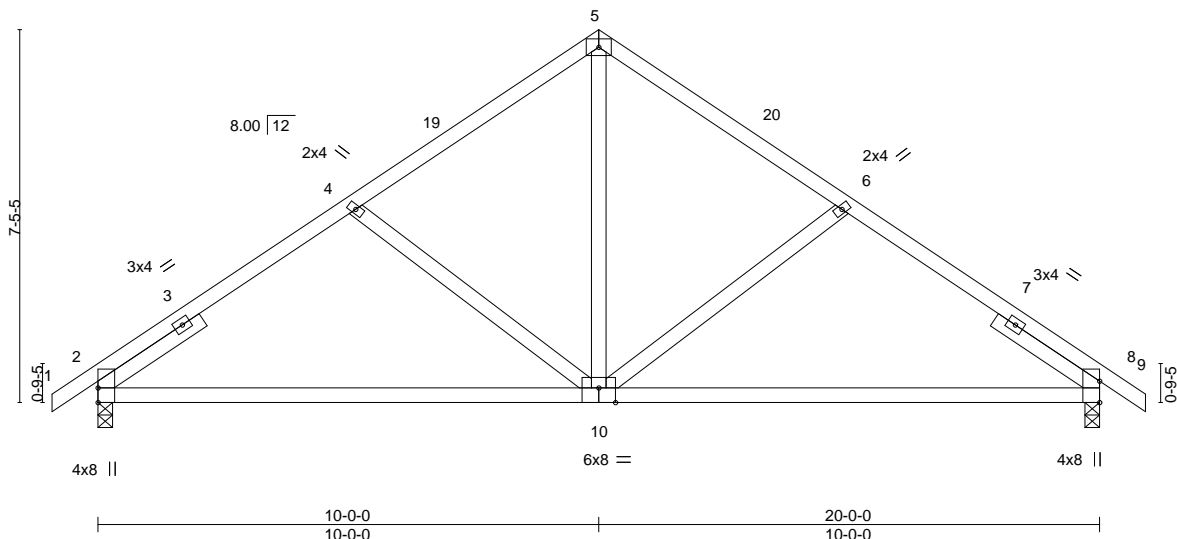
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:47 2021 Page 1

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0-11-0 5-1-12 10-0-0 14-10-4 20-0-0 20-11-0  
0-11-0 5-1-12 4-10-4 4-10-4 5-1-12 0-11-0

4x6 =

Scale = 1:46.0



|                       |                      |       |             |              |             |        |     |               |             |
|-----------------------|----------------------|-------|-------------|--------------|-------------|--------|-----|---------------|-------------|
| Plate Offsets (X,Y)-- | [10:0-4-0,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> | <b>GRIP</b> |
| TCLL 25.0             | Plate Grip DOL       | 1.15  | TC 0.23     | Vert(LL)     | -0.13 10-17 | >999   | 240 | MT20          | 197/144     |
| TCDL 10.0             | Lumber DOL           | 1.15  | BC 0.69     | Vert(CT)     | -0.27 10-17 | >893   | 180 |               |             |
| BCLL 0.0              | Rep Stress Incr      | YES   | WB 0.21     | Horz(CT)     | 0.02 8      | n/a    | n/a |               |             |
| BCDL 10.0             | Code IRC2018/TPI2014 |       | Matrix-AS   |              |             |        |     | Weight: 80 lb | FT = 20%    |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

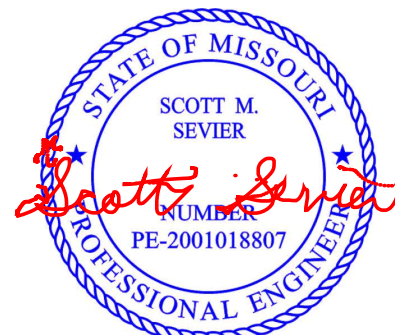
(size) 2=0-3-8, 8=0-3-8  
Max Horz 2=190(LC 10)  
Max Uplift 2=159(LC 12), 8=159(LC 13)  
Max Grav 2=964(LC 1), 8=964(LC 1)

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

TOP CHORD 2-4=-1008/216, 4-5=-897/205, 5-6=-897/205, 6-8=-1008/216  
BOT CHORD 2-10=-194/909, 8-10=-87/892  
WEBS 5-10=-91/545, 6-10=-321/211, 4-10=-321/210

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-11-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=159, 8=159.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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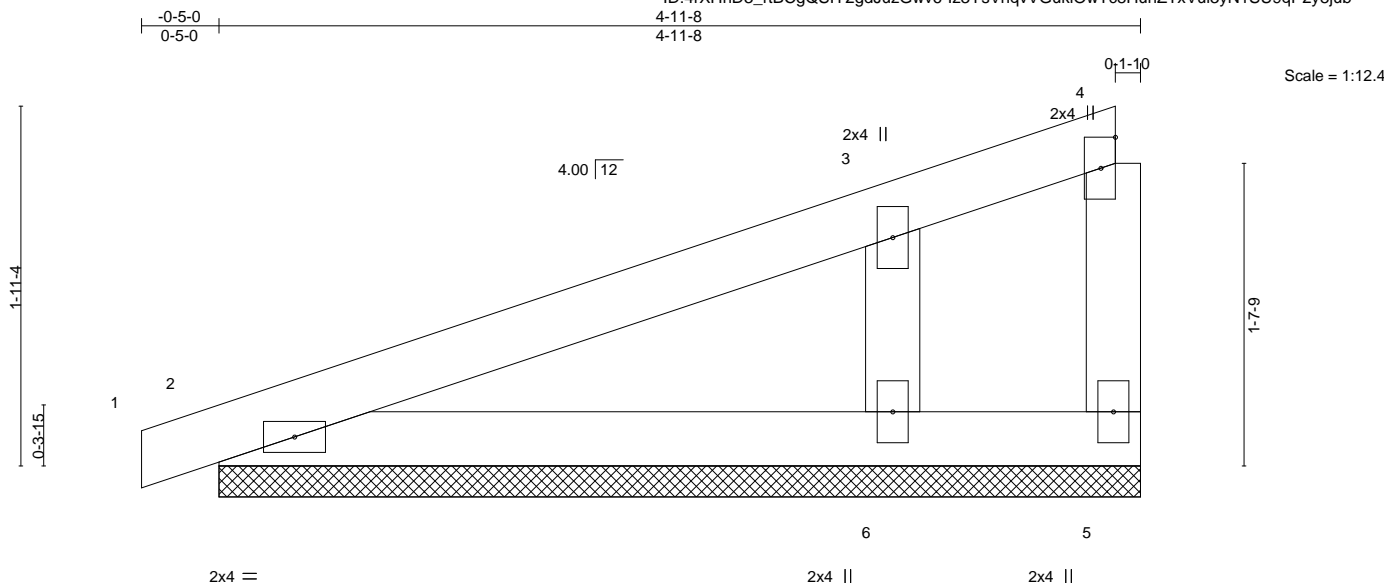
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                |             |                     |          |          |  |
|----------------|-------------|---------------------|----------|----------|--|
| Job<br>3043214 | Truss<br>C1 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | SUMMIT/COBEY CREEK #23/MO<br>I49282483 |
|----------------|-------------|---------------------|----------|----------|--|

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:48 2021 Page 1

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| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.17  | Vert(LL) | -0.00 | 1     | n/r    | 120 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.09  | Vert(CT) | 0.00  | 1     | n/r    | 120 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.07  | Horz(CT) | 0.00  | 5     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P |          |       |       |        |     | Weight: 15 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS.

(size) 5=4-11-8, 2=4-11-8, 6=4-11-8  
Max Horz 2=75(LC 9)  
Max Uplift 5=44(LC 1), 2=39(LC 8), 6=95(LC 12)  
Max Grav 5=17(LC 12), 2=163(LC 1), 6=341(LC 1)

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

WEBS 3-6=-264/392

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-5-0 to 2-7-0, Exterior(2N) 2-7-0 to 4-9-5 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



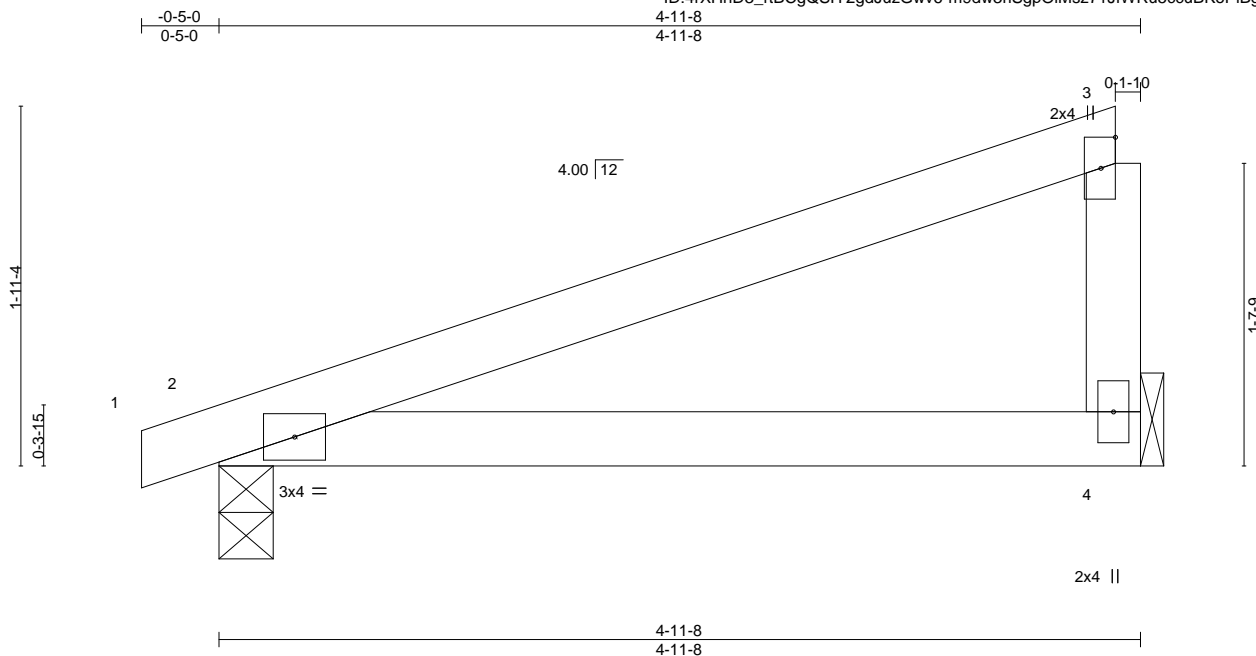
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                |             |                          |          |          |  |
|----------------|-------------|--------------------------|----------|----------|--|
| Job<br>3043214 | Truss<br>C2 | Truss Type<br>MONO TRUSS | Qty<br>6 | Ply<br>1 | SUMMIT/COBEY CREEK #23/MO<br>149282484 |
|----------------|-------------|--------------------------|----------|----------|--|

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.30   | Vert(LL) | 0.04  | 4-7   | >999   | 240 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.26   | Vert(CT) | -0.06 | 4-7   | >937   | 180 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.00   | Horz(CT) | 0.00  | 2     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |       |       |        |     | Weight: 14 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 2=0-3-8, 4=Mechanical  
Max Horz 2=75(LC 11)  
Max Uplift 2=62(LC 8), 4=54(LC 12)  
Max Grav 2=247(LC 1), 4=215(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-5-0 to 2-7-0, Interior(1) 2-7-0 to 4-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |            |     |     |                           |           |
|---------|-------|------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | I49282485 |
| 3043214 | C3    | MONOPITCH  | 3   | 1   |                           |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

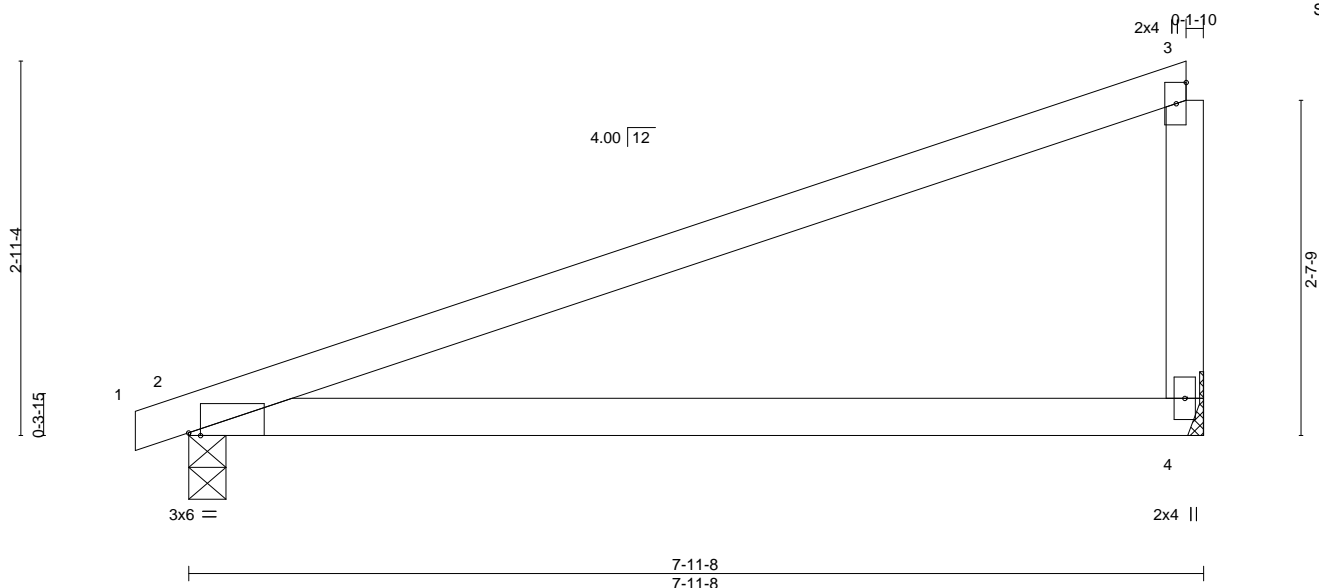
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:50 2021 Page 1

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-0-5-0  
0-5-0

7-11-8  
7-11-8

Scale = 1:18.1



| Plate Offsets (X,Y)-- |  | [2:0-1-2,Edge]  |                    |
|-----------------------|--|-----------------|--------------------|
| <b>LOADING</b> (psf)  |  | <b>SPACING-</b> | 2-0-0              |
| TCLL 25.0             |  | Plate Grip DOL  | 1.15               |
| TCDL 10.0             |  | Lumber DOL      | 1.15               |
| BCLL 0.0              |  | Rep Stress Incr | YES                |
| BCDL 10.0             |  | Code            | IRC2018/TPI2014    |
|                       |  | <b>CSI.</b>     |                    |
|                       |  | TC              | 0.84               |
|                       |  | BC              | 0.64               |
|                       |  | WB              | 0.00               |
|                       |  | Matrix-AS       |                    |
|                       |  | <b>DEFL.</b>    |                    |
|                       |  | in (loc)        | l/defl L/d         |
|                       |  | Vert(LL)        | 0.21 4-7 >456 240  |
|                       |  | Vert(CT)        | -0.39 4-7 >241 180 |
|                       |  | Horz(CT)        | 0.01 2 n/a n/a     |
|                       |  | <b>PLATES</b>   | <b>GRIP</b>        |
|                       |  | MT20            | 197/144            |
|                       |  | Weight: 22 lb   | FT = 20%           |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 4=Mechanical, 2=0-3-8  
Max Horz 2=120(LC 11)  
Max Uplift 4=89(LC 12), 2=89(LC 8)  
Max Grav 4=351(LC 1), 2=382(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-5-0 to 2-7-0, Interior(1) 2-7-0 to 7-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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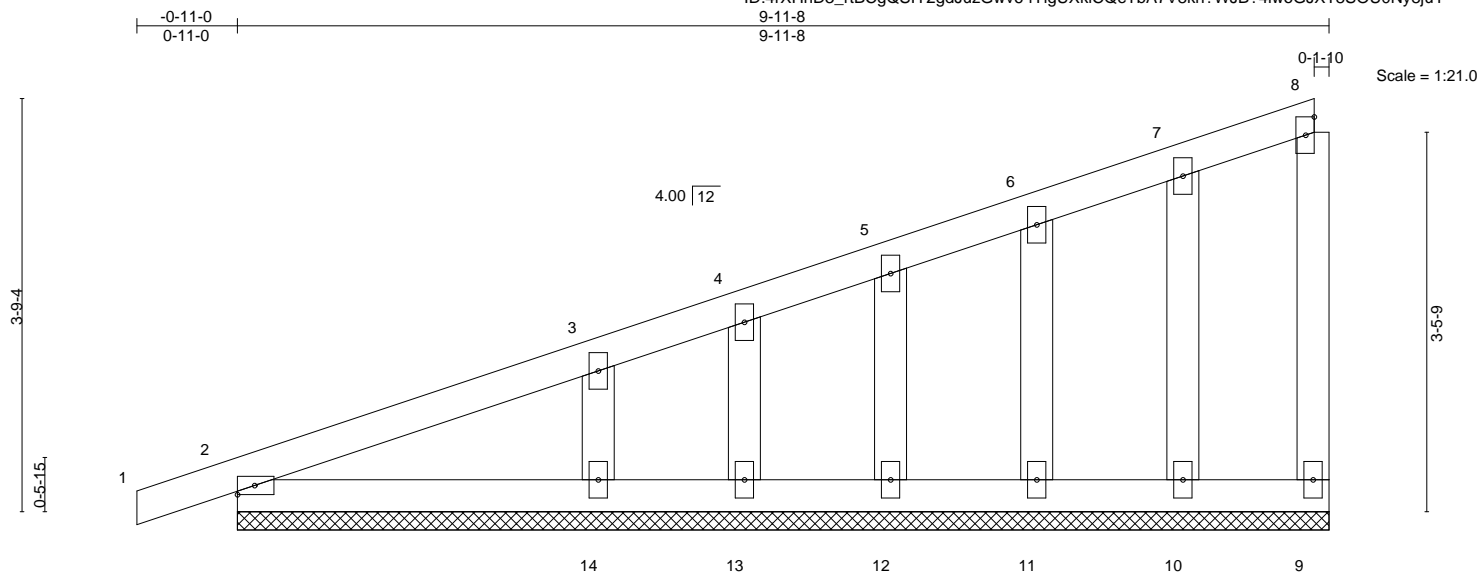
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                          |       |                           |     |     |                           |
|--------------------------|-------|---------------------------|-----|-----|---------------------------|
| Job                      | Truss | Truss Type                | Qty | Ply | SUMMIT/COBEY CREEK #23/MO |
| 3043214                  | C4    | Monopitch Supported Gable | 1   | 1   | 149282486                 |
| Job Reference (optional) |       |                           |     |     |                           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | L/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.11  | Vert(LL) | -0.00 | 1     | n/r    | 120 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.06  | Vert(CT) | 0.00  | 1     | n/r    | 120 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.04  | Horz(CT) | 0.00  | 9     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |          |       |       |        |     | Weight: 39 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 9-11-8.  
(lb) - Max Horz 2=156(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 9, 2, 10, 11, 12, 13, 14  
Max Grav All reactions 250 lb or less at joint(s) 9, 2, 10, 11, 12, 13 except 14=287(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-291/142

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 9-9-5 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 2, 10, 11, 12, 13, 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.



December 16, 2021

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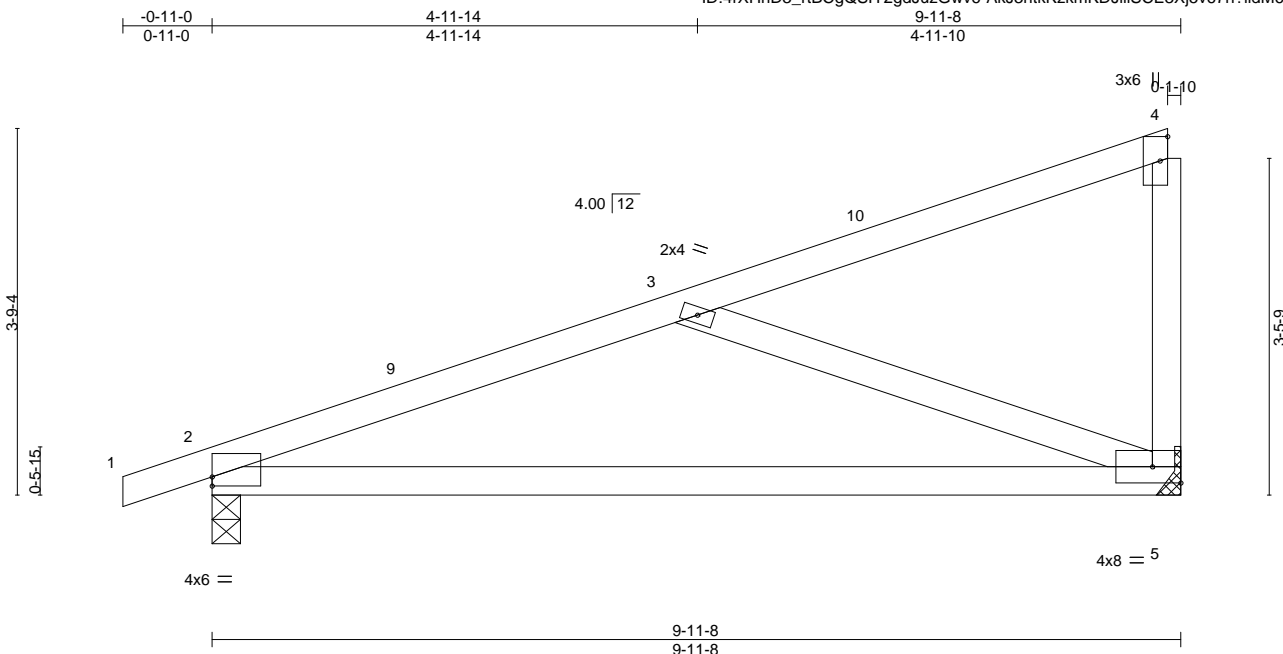


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |            |     |     |                           |           |
|---------|-------|------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282487 |
| 3043214 | C5    | Monopitch  | 9   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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Scale = 1:23.7

|                       |      |                       |      |             |      |                                  |       |     |                    |     |                        |
|-----------------------|------|-----------------------|------|-------------|------|----------------------------------|-------|-----|--------------------|-----|------------------------|
| Plate Offsets (X,Y)-- |      | [2:0-0-0,0-1-2]       |      |             |      |                                  |       |     |                    |     |                        |
| <b>LOADING</b> (psf)  |      | <b>SPACING-</b> 2-0-0 |      | <b>CSI.</b> |      | <b>DEFL.</b> in (loc) l/defl L/d |       |     | <b>PLATES GRIP</b> |     |                        |
| TCLL                  | 25.0 | Plate Grip DOL        | 1.15 | TC          | 0.42 | Vert(LL)                         | -0.21 | 5-8 | >572               | 240 | MT20 197/144           |
| TCDL                  | 10.0 | Lumber DOL            | 1.15 | BC          | 0.60 | Vert(CT)                         | -0.41 | 5-8 | >285               | 180 |                        |
| BCLL                  | 0.0  | Rep Stress Incr       | YES  | WB          | 0.30 | Horz(CT)                         | 0.01  | 2   | n/a                | n/a |                        |
| BCDL                  | 10.0 | Code IRC2018/TPI2014  |      | Matrix-AS   |      |                                  |       |     |                    |     | Weight: 34 lb FT = 20% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 2=0-3-8, 5=Mechanical  
Max Horz 2=158(LC 11)  
Max Uplift 2=129(LC 8), 5=112(LC 12)  
Max Grav 2=509(LC 1), 5=439(LC 1)

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

TOP CHORD 2-3=-694/313  
BOT CHORD 2-5=-417/636  
WEBS 3-5=-622/394

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 9-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=129, 5=112.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 16, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

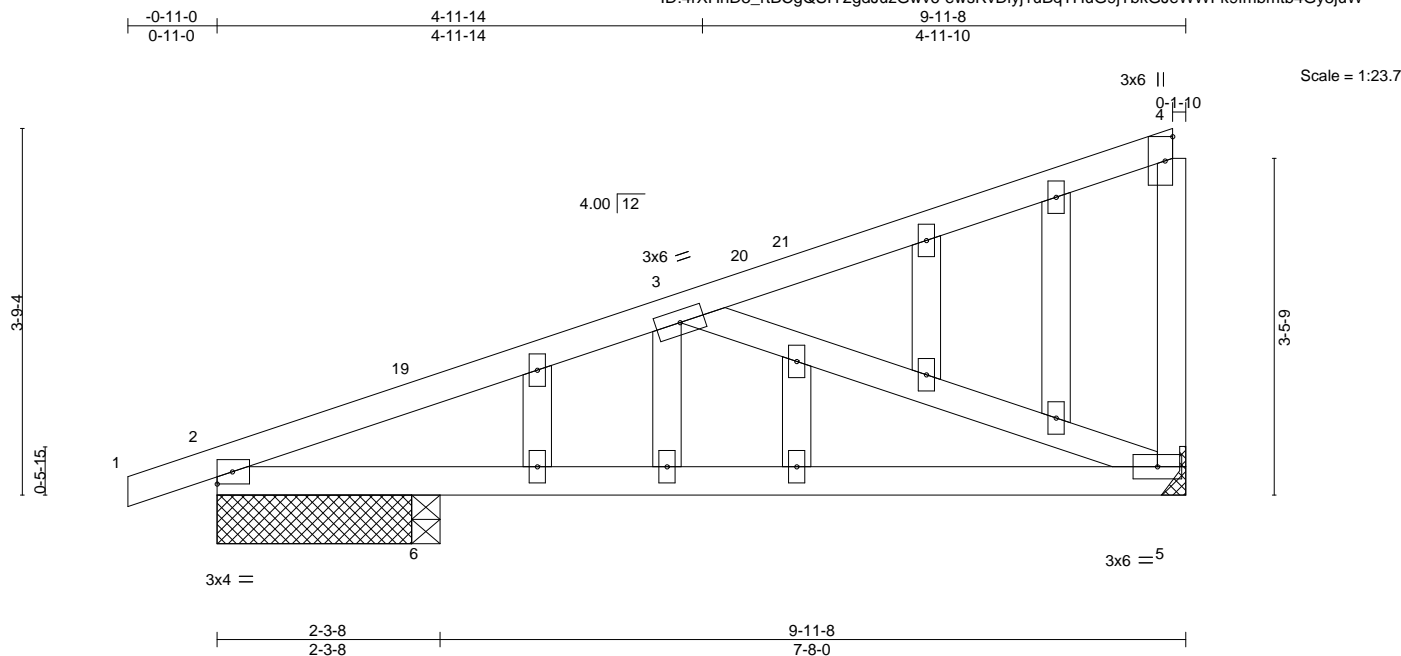


|         |       |                         |     |     |                           |           |
|---------|-------|-------------------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type              | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | I49282488 |
| 3043214 | C6    | Common Structural Gable | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.23   | Vert(LL) | -0.08 | 5-6   | >999   | 240 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.39   | Vert(CT) | -0.16 | 5-6   | >580   | 180 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.26   | Horz(CT) | 0.01  | 5     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |       |       |        |     | Weight: 42 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 2=2-0-0, 5=Mechanical, 6=0-3-8  
Max Horz 2=158(LC 11)  
Max Uplift 2=171(LC 8), 5=122(LC 8)  
Max Grav 2=376(LC 1), 5=401(LC 1), 6=321(LC 3)

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

TOP CHORD 2-3=-620/284  
BOT CHORD 2-6=-449/542, 5-6=-449/542  
WEBS 3-5=-534/419

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 9-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=171, 5=122.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 16, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |                     |     |     |                           |           |
|---------|-------|---------------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type          | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282489 |
| 3043214 | CJ1   | Diagonal Hip Girder | 2   | 1   | Job Reference (optional)  |           |

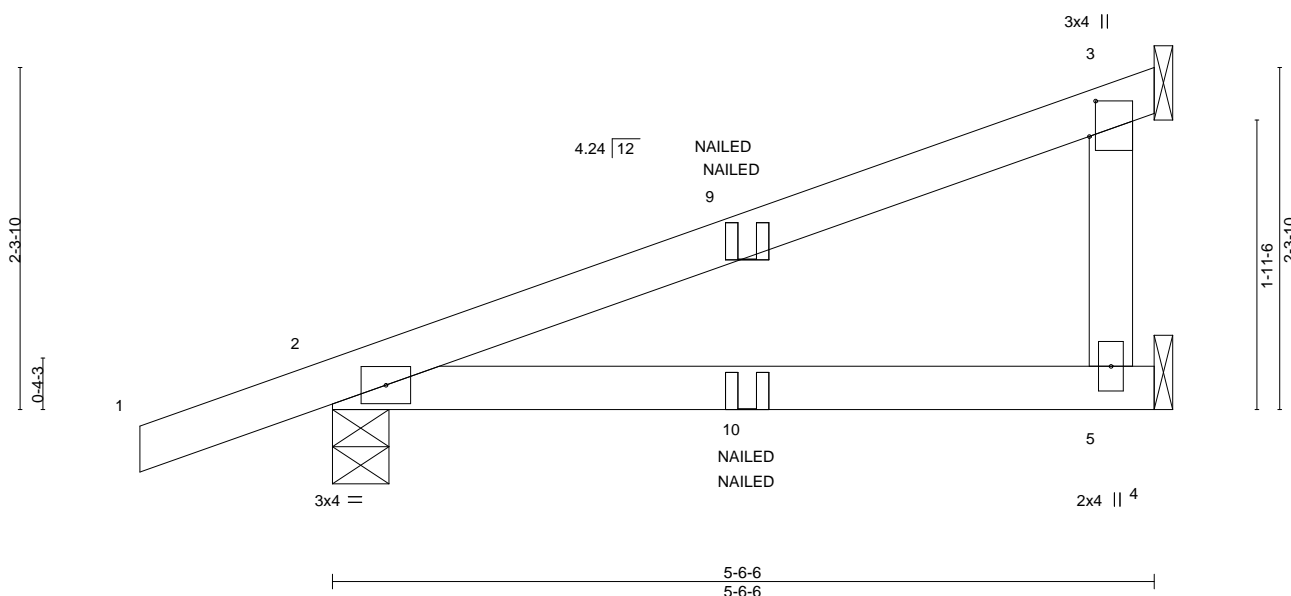
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:54 2021 Page 1

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Scale = 1:15.5



|  |      |                      |      |           |      |                           |       |     |      |               |              |
|--|------|----------------------|------|-----------|------|---------------------------|-------|-----|------|---------------|--------------|
| Plate Offsets (X,Y)-- [3:0-2-14,0-0-8] |      |                      |      |           |      |                           |       |     |      |               |              |
| LOADING (psf)                          |      | SPACING- 2-0-0       |      | CSI.      |      | DEFL. in (loc) l/defl L/d |       |     |      | PLATES GRIP   |              |
| TCLL                                   | 25.0 | Plate Grip DOL       | 1.15 | TC        | 0.43 | Vert(LL)                  | -0.04 | 5-8 | >999 | 240           | MT20 197/144 |
| TCDL                                   | 10.0 | Lumber DOL           | 1.15 | BC        | 0.32 | Vert(CT)                  | -0.08 | 5-8 | >747 | 180           |              |
| BCLL                                   | 0.0  | Rep Stress Incr      | NO   | WB        | 0.00 | Horz(CT)                  | 0.00  | 2   | n/a  | n/a           |              |
| BCDL                                   | 10.0 | Code IRC2018/TPI2014 |      | Matrix-MP |      |                           |       |     |      | Weight: 17 lb | FT = 20%     |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-9, 3=Mechanical, 5=Mechanical  
Max Horz 2=101(LC 4)  
Max Uplift 2=102(LC 4), 3=68(LC 8)  
Max Grav 2=342(LC 1), 3=155(LC 1), 5=108(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 2=102.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-70, 4-6=-20  
Concentrated Loads (lb)  
Vert: 10=-10(F=-5, B=-5)



December 16, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |                        |     |     |                           |           |
|---------|-------|------------------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type             | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282490 |
| 3043214 | D1    | Common Supported Gable | 1   | 1   | Job Reference (optional)  |           |

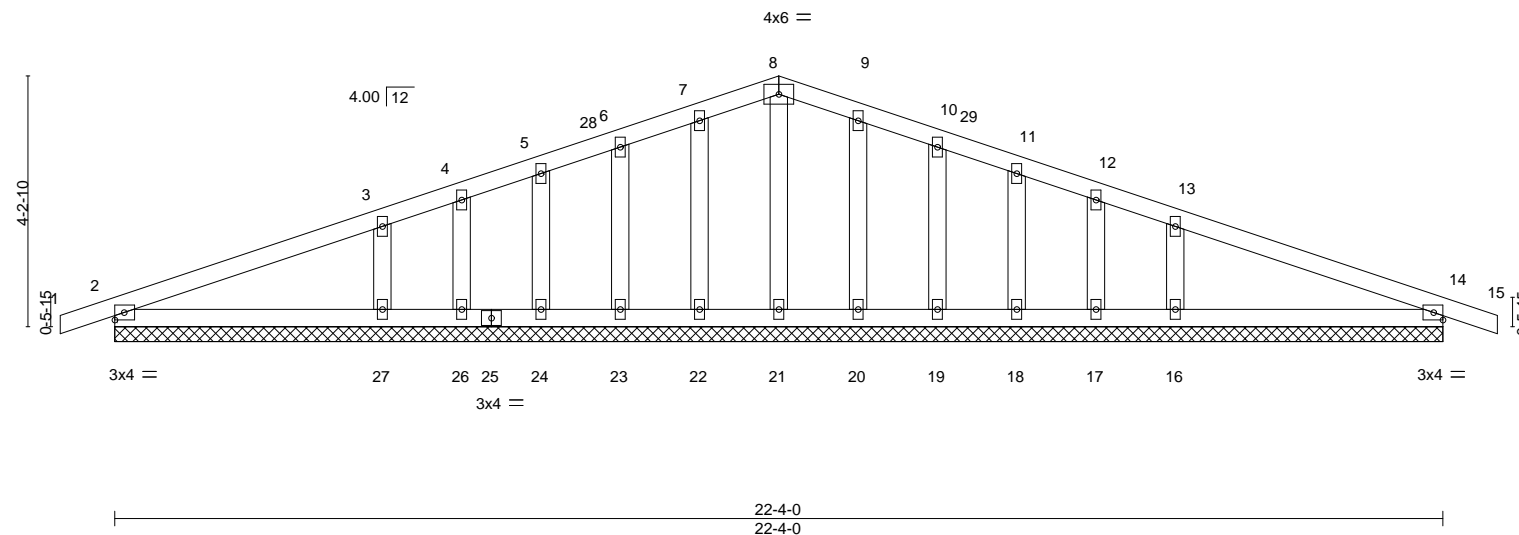
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:56 2021 Page 1

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|         |        |        |        |
|---------|--------|--------|--------|
| -0-11-0 | 11-2-0 | 22-4-0 | 23-3-0 |
| 0-11-0  | 11-2-0 | 11-2-0 | 0-11-0 |

Scale = 1:38.7



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in   | (loc) | L/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.22  | Vert(LL) | 0.01 | 15    | n/r    | 120 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.13  | Vert(CT) | 0.02 | 15    | n/r    | 120 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.04  | Horz(CT) | 0.00 | 14    | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |          |      |       |        |     | Weight: 85 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

- All bearings 22-4-0.  
(lb) - Max Horz 2=-71(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 23, 24, 26, 20, 19, 18, 17, 14 except 27=-125(LC 12), 16=-124(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 21, 22, 23, 24, 26, 20, 19, 18, 17, 14 except 27=438(LC 25), 16=438(LC 26)

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

WEBS 3-27=-317/180, 13-16=-317/180

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 11-2-0, Corner(3R) 11-2-0 to 14-2-0, Exterior(2N) 14-2-0 to 23-3-0 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
- 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 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 23, 24, 26, 20, 19, 18, 17, 14 except (jt=lb) 27=125, 16=124.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 16, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |            |     |     |                           |           |
|---------|-------|------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282491 |
| 3043214 | D2    | Common     | 5   | 1   |                           |           |

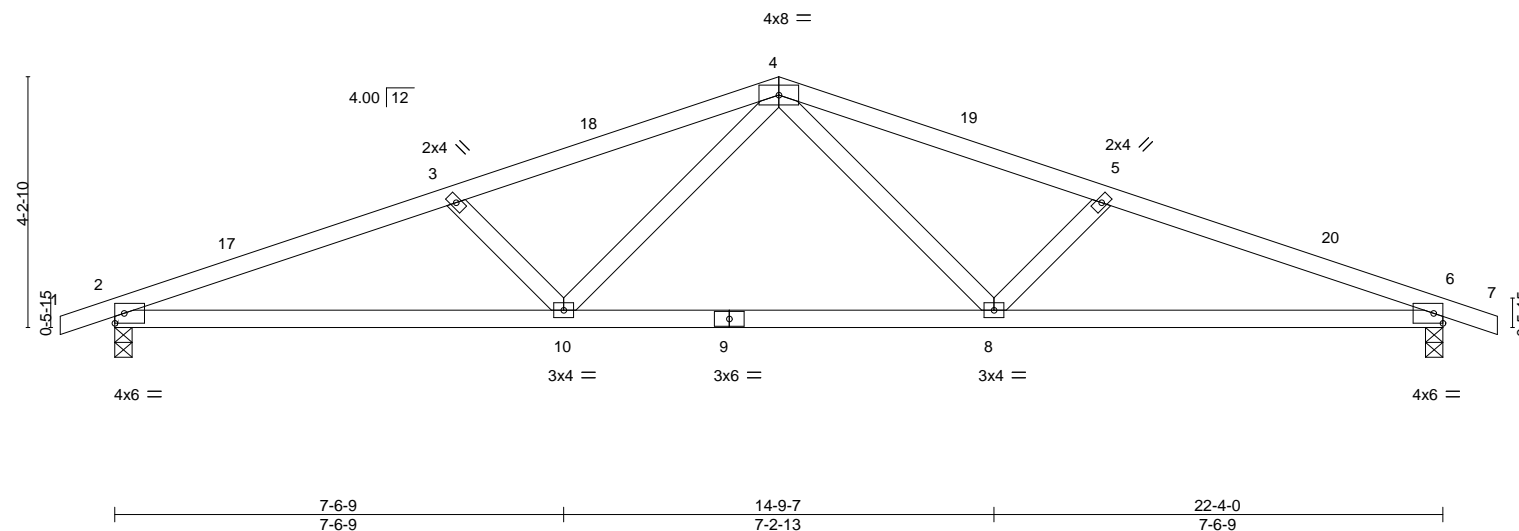
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:58 2021 Page 1

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|         |        |        |        |        |        |
|---------|--------|--------|--------|--------|--------|
| -0-11-0 | 5-8-14 | 11-2-0 | 16-7-2 | 22-4-0 | 23-3-0 |
| 0-11-0  | 5-8-14 | 5-5-2  | 5-5-2  | 5-8-14 | 0-11-0 |

Scale = 1:38.7



|                      |                      |                  |                              |                 |             |
|----------------------|----------------------|------------------|------------------------------|-----------------|-------------|
| 7-6-9<br>7-6-9       |                      | 14-9-7<br>7-2-13 |                              | 22-4-0<br>7-6-9 |             |
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | <b>CSI.</b>      | <b>DEFL.</b>                 | <b>PLATES</b>   | <b>GRIP</b> |
| TCLL 25.0            | 2-0-0                | TC 0.39          | in (loc) l/defl L/d          | MT20            | 197/144     |
| TCDL 10.0            | Plate Grip DOL 1.15  | BC 0.63          | Vert(LL) -0.15 8-10 >999 240 |                 |             |
| BCLL 0.0             | Lumber DOL 1.15      | WB 0.15          | Vert(CT) -0.28 8-10 >949 180 |                 |             |
| BCDL 10.0            | Rep Stress Incr YES  | Matrix-AS        | Horz(CT) 0.06 6 n/a n/a      |                 |             |
|                      | Code IRC2018/TPI2014 |                  |                              | Weight: 72 lb   | FT = 20%    |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 6=0-3-8  
Max Horz 2=-71(LC 17)  
Max Uplift 2=-227(LC 8), 6=-227(LC 9)  
Max Grav 2=1069(LC 1), 6=1069(LC 1)

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

TOP CHORD 2-3=-2253/540, 3-4=-1981/486, 4-5=-1981/486, 5-6=-2253/540  
BOT CHORD 2-10=-449/2076, 8-10=-267/1444, 6-8=-453/2076  
WEBS 4-8=-111/593, 5-8=-403/196, 4-10=-110/593, 3-10=-403/196

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 11-2-0, Exterior(2R) 11-2-0 to 14-2-0, Interior(1) 14-2-0 to 23-3-0 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=227, 6=227.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 16, 2021

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16023 Swingley Ridge Rd  
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|         |       |            |     |     |                           |           |
|---------|-------|------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | 149282492 |
| 3043214 | E1    | Hip Girder | 1   | 1   |                           |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

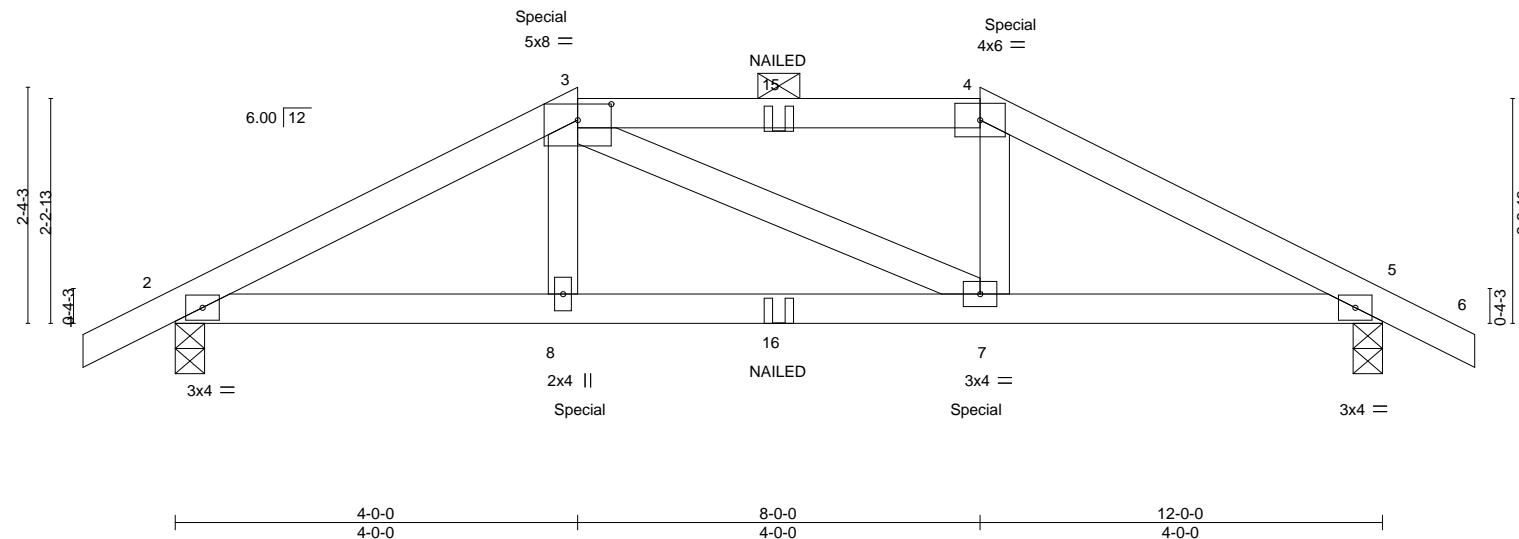
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:58:59 2021 Page 1

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Job Reference (optional)

|         |       |       |        |         |
|---------|-------|-------|--------|---------|
| -0-11-0 | 4-0-0 | 8-0-0 | 12-0-0 | 12-11-0 |
| 0-11-0  | 4-0-0 | 4-0-0 | 4-0-0  | 0-11-0  |

Scale = 1:22.9



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

|                      |                      |       |             |              |       |       |        |     |               |             |
|----------------------|----------------------|-------|-------------|--------------|-------|-------|--------|-----|---------------|-------------|
| <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 25.0            | Plate Grip DOL       | 1.15  | TC 0.40     | Vert(LL)     | -0.03 | 7-8   | >999   | 240 | MT20          | 197/144     |
| TCDL 10.0            | Lumber DOL           | 1.15  | BC 0.42     | Vert(CT)     | -0.07 | 7-8   | >999   | 180 |               |             |
| BCLL 0.0             | Rep Stress Incr      | NO    | WB 0.06     | Horz(CT)     | 0.02  | 5     | n/a    | n/a |               |             |
| BCDL 10.0            | Code IRC2018/TPI2014 |       | Matrix-MS   |              |       |       |        |     | Weight: 40 lb | FT = 20%    |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 5=0-3-8  
Max Horz 2=42(LC 13)  
Max Uplift 2=180(LC 8), 5=180(LC 9)  
Max Grav 2=833(LC 1), 5=833(LC 1)

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

TOP CHORD 2-3=-1406/282, 3-4=-1207/285, 4-5=-1407/282  
BOT CHORD 2-8=-228/1221, 7-8=-232/1207, 5-7=-206/1222  
WEBS 3-8=0/268, 4-7=0/269

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=180, 5=180.
- This truss 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 162 lb down and 148 lb up at 4-0-0, and 162 lb down and 148 lb up at 8-0-0 on top chord, and 85 lb down at 4-0-0, and 85 lb down at 7-11-4 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 (plf)  
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 9-12=-20  
Concentrated Loads (lb)  
Vert: 4=-103(B) 8=-85(B) 7=-85(B) 3=-103(B) 15=-47(B) 16=-33(B)



December 16, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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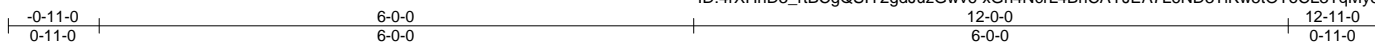
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |            |     |     |                           |           |
|---------|-------|------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | I49282493 |
| 3043214 | E2    | Common     | 3   | 1   |                           |           |

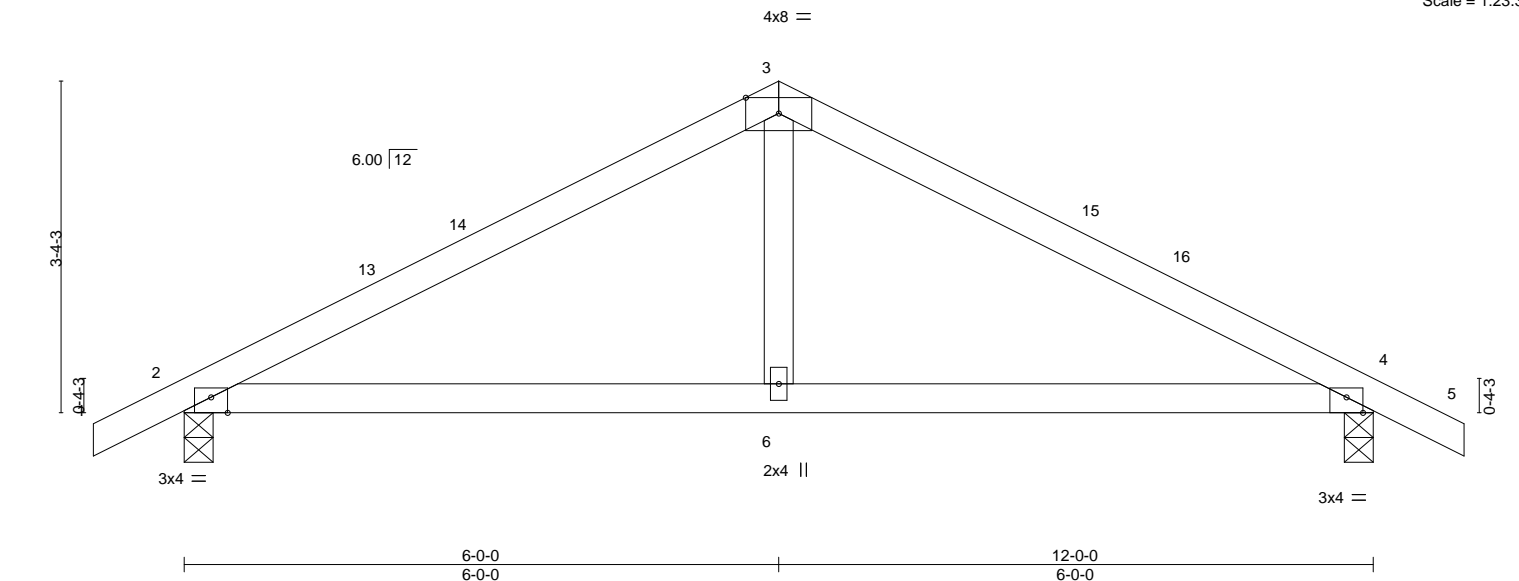
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:59:00 2021 Page 1

ID:4rXHhD3\_rBCgQSIY2gdJuzGwv6-xGn4NcrL4BnCAYJEA7L6ND3TIKw5tOTCL3TqMy8juP



Scale = 1:23.3



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.37   | Vert(LL) | -0.05 | 6-9   | >999   | 240 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.37   | Vert(CT) | -0.09 | 6-9   | >999   | 180 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.06   | Horz(CT) | 0.01  | 4     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |       |       |        |     |               |          |
|               |                      |       |           |          |       |       |        |     | Weight: 35 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 4=0-3-8  
Max Horz 2=-61(LC 17)  
Max Uplift 2=-111(LC 12), 4=-111(LC 13)  
Max Grav 2=604(LC 1), 4=604(LC 1)

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

TOP CHORD 2-3=-770/291, 3-4=-770/291  
BOT CHORD 2-6=-134/622, 4-6=-134/622  
WEBS 3-6=0/274

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=111, 4=111.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 16, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Chesterfield, MO 63017



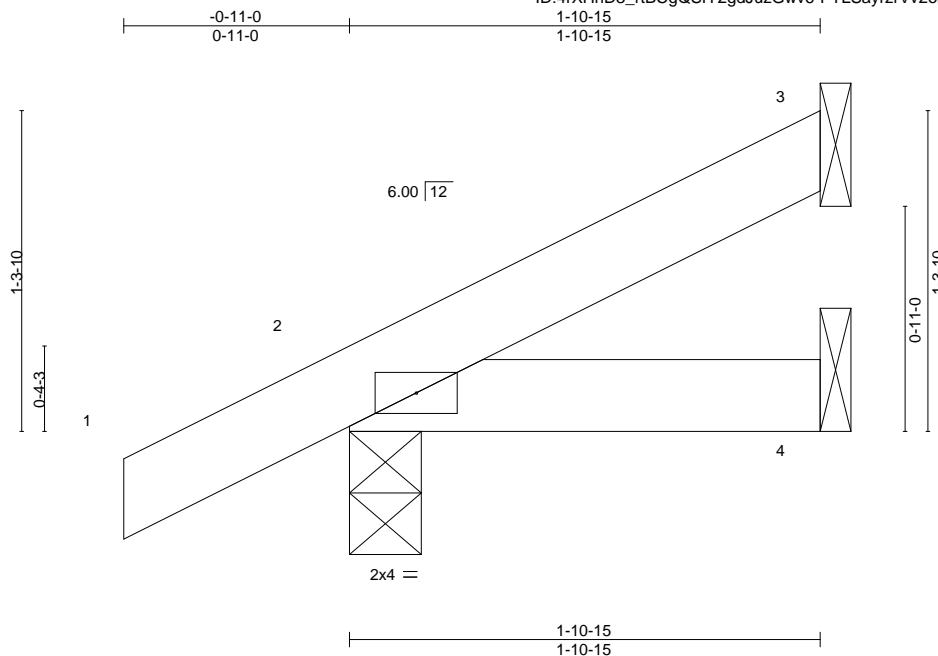
|                |             |                         |          |          |   |           |
|----------------|-------------|-------------------------|----------|----------|---|-----------|
| Job<br>3043214 | Truss<br>J1 | Truss Type<br>Jack-Open | Qty<br>4 | Ply<br>1 | SUMMIT/COBEY CREEK #23/MO<br>Job Reference (optional) | I49282494 |
|----------------|-------------|-------------------------|----------|----------|---|-----------|

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:59:01 2021 Page 1

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Scale = 1:9.4

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc) | L/defl | L/d  | PLATES       | GRIP     |
|---------------|----------------------|-------|-----------|----------|----------|--------|------|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.06   | Vert(LL) | -0.00    | 7      | >999 | 240          | MT20     |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.03   | Vert(CT) | -0.00    | 7      | >999 | 180          | 197/144  |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.00   | Horz(CT) | -0.00    | 3      | n/a  | n/a          |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-MP |          |          |        |      |              |          |
|               |                      |       |           |          |          |        |      | Weight: 6 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=55(LC 12)  
Max Uplift 3=24(LC 12), 2=37(LC 12)  
Max Grav 3=48(LC 1), 2=165(LC 1), 4=32(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 16, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

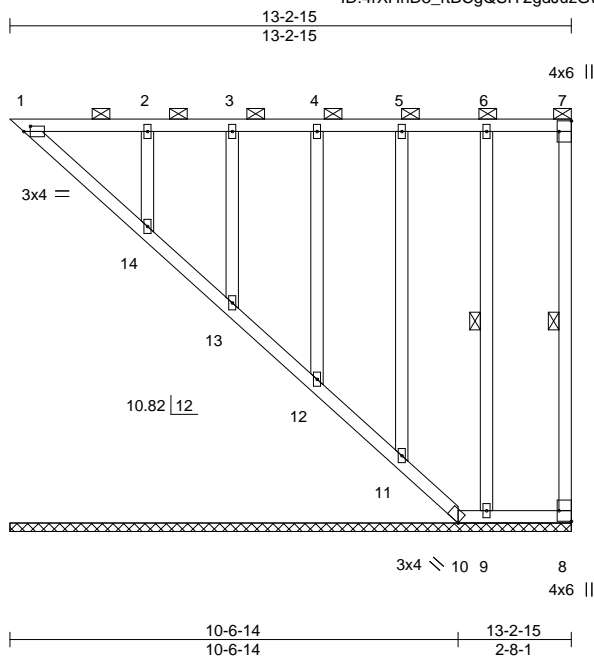
|                          |       |            |     |     |                           |
|--------------------------|-------|------------|-----|-----|---------------------------|
| Job                      | Truss | Truss Type | Qty | Ply | SUMMIT/COBEY CREEK #23/MO |
| 3043214                  | L1    | GABLE      | 2   | 1   | 149282495                 |
| Job Reference (optional) |       |            |     |     |                           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:59:02 2021 Page 1

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Scale = 1:54.4

| Plate Offsets (X,Y)-- |                 | [1:0-1-14,0-1-8], [7:Edge,0-3-8], [8:Edge,0-3-8] |             |
|-----------------------|-----------------|--|-------------|
| <b>LOADING</b> (psf)  | <b>SPACING-</b> | 2-0-0  | <b>CSI.</b> |
| TCLL 25.0             | Plate Grip DOL  | 1.15   | TC 0.51     |
| TCDL 10.0             | Lumber DOL      | 1.15   | BC 0.24     |
| BCLL 0.0              | Rep Stress Incr | YES  | WB 0.16     |
| BCDL 10.0             | Code            | IRC2018/TPI2014                                  | Matrix-S    |
| <b>DEFL.</b>          | in (loc)        | l/defl   | L/d         |
| Vert(LL)              | n/a             | -  | n/a 999     |
| Vert(CT)              | n/a             | -  | n/a 999     |
| Horz(CT)              | -0.01           | 8  | n/a n/a     |
| <b>PLATES</b>         | <b>GRIP</b>     |  |             |
| MT20                  | 197/144         |  |             |
| Weight: 77 lb         |                 | FT = 20%   |             |

#### LUMBER-

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

#### BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-7, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-0-0 oc bracing: 1-14,12-13.  
WEBS 1 Row at midpt 7-8, 6-9

#### REACTIONS.

All bearings 13-2-15.

(lb) - Max Horz 1=261(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 8, 10, 9, 11, 12, 13, 14 except 1=-108(LC 11)

Max Grav All reactions 250 lb or less at joint(s) 1, 8, 10, 9, 11, 12, 13 except 14=270(LC 1)

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

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 1 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 capable of withstanding 100 lb uplift at joint(s) 8, 10, 9, 11, 12, 13, 14 except (it=lb) 1=108.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 11, 12, 13, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 16,2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

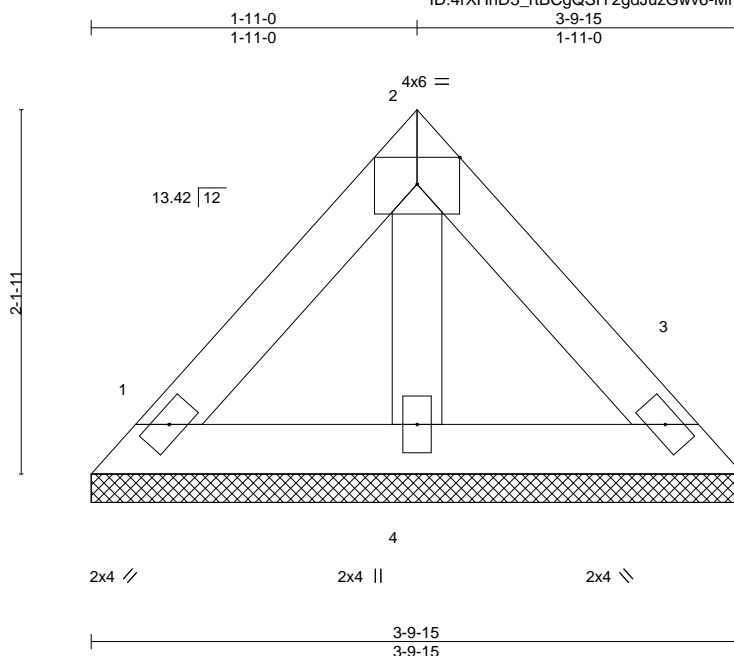
|                |             |                            |          |          |  |
|----------------|-------------|----------------------------|----------|----------|--|
| Job<br>3043214 | Truss<br>L2 | Truss Type<br>Lay-In Gable | Qty<br>1 | Ply<br>1 | SUMMIT/COBEY CREEK #23/MO<br>149282496 |
|----------------|-------------|----------------------------|----------|----------|--|

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:59:03 2021 Page 1

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Scale = 1:13.5

| Plate Offsets (X,Y)-- |  | [2:Edge,0-1-14] |                 |
|-----------------------|--|-----------------|-----------------|
| <b>LOADING</b> (psf)  |  | <b>SPACING-</b> | 2-0-0           |
| TCLL 25.0             |  | Plate Grip DOL  | 1.15            |
| TCDL 10.0             |  | Lumber DOL      | 1.15            |
| BCLL 0.0              |  | Rep Stress Incr | YES             |
| BCDL 10.0             |  | Code            | IRC2018/TPI2014 |
|                       |  | <b>CSI.</b>     |                 |
|                       |  | TC              | 0.05            |
|                       |  | BC              | 0.02            |
|                       |  | WB              | 0.01            |
|                       |  | Matrix-P        |                 |
|                       |  | <b>DEFL.</b>    |                 |
|                       |  | Vert(LL)        | n/a             |
|                       |  | Vert(CT)        | n/a             |
|                       |  | Horz(CT)        | 0.00            |
|                       |  |                 | (loc) -         |
|                       |  |                 | l/defl n/a      |
|                       |  |                 | L/d 999         |
|                       |  |                 | n/a 999         |
|                       |  |                 | n/a n/a         |
|                       |  | <b>PLATES</b>   |                 |
|                       |  | MT20            |                 |
|                       |  | <b>GRIP</b>     |                 |
|                       |  | 197/144         |                 |
|                       |  | Weight: 12 lb   | FT = 20%        |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=3-9-15, 3=3-9-15, 4=3-9-15  
Max Horz 1=-48(LC 8)  
Max Uplift 1=-26(LC 13), 3=-22(LC 13)  
Max Grav 1=89(LC 1), 3=89(LC 1), 4=108(LC 1)

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

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 16, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

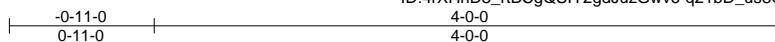
|                |             |                         |          |          |  |
|----------------|-------------|-------------------------|----------|----------|--|
| Job<br>3043214 | Truss<br>M1 | Truss Type<br>Jack-Open | Qty<br>3 | Ply<br>1 | SUMMIT/COBEY CREEK #23/MO<br>149282497 |
|----------------|-------------|-------------------------|----------|----------|--|

Builders FirstSource (Valley Center),

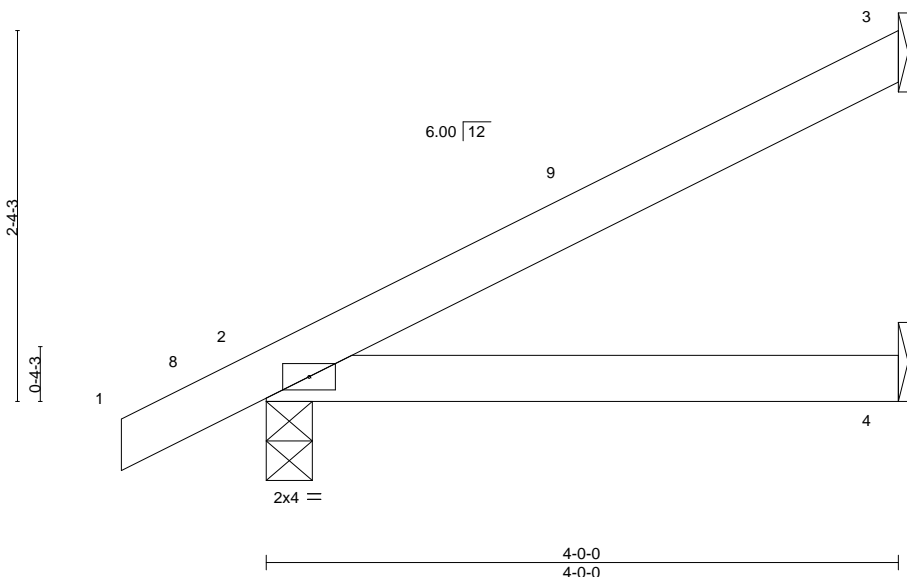
Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:59:04 2021 Page 1

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Scale = 1:14.6



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.19   | Vert(LL) | 0.02  | 4-7   | >999   | 240 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.15   | Vert(CT) | -0.03 | 4-7   | >999   | 180 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.00   | Horz(CT) | -0.00 | 3     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |       |       |        |     | Weight: 11 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=96(LC 12)  
Max Uplift 3=60(LC 12), 2=44(LC 12)  
Max Grav 3=117(LC 1), 2=249(LC 1), 4=71(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 3-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 16, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                          |       |            |     |     |                           |
|--------------------------|-------|------------|-----|-----|---------------------------|
| Job                      | Truss | Truss Type | Qty | Ply | SUMMIT/COBEY CREEK #23/MO |
| 3043214                  | V6    | Valley     | 1   | 1   | 149282498                 |
| Job Reference (optional) |       |            |     |     |                           |

Builders FirstSource (Valley Center),

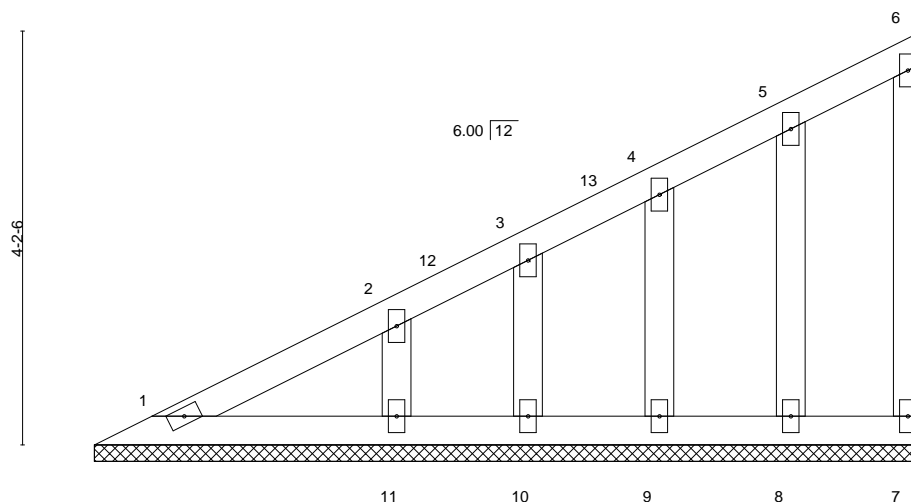
Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:59:06 2021 Page 1

ID:4rXHhD3\_rBCgQSIY2gdJuzGwv6-mQ9Lefv6g1XLuTnOWOSWdUIYgl2jH6IhaHWn20y8juJ

8-4-13  
8-4-13

Scale = 1:23.4



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in   | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.15  | Vert(LL) | n/a  | -     | n/a    | 999 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.04  | Vert(CT) | n/a  | -     | n/a    | 999 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.04  | Horz(CT) | 0.00 | 7     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P |          |      |       |        |     | Weight: 33 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 8-4-13.

(lb) - Max Horz 1=159(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 7, 8, 9, 10, 11

Max Grav All reactions 250 lb or less at joint(s) 1, 7, 8, 9, 10, 11

#### FORCES.

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

TOP CHORD 1-2=-345/177

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-7-7 to 3-7-7, Exterior(2N) 3-7-7 to 8-3-1 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 8, 9, 10, 11.
- 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.



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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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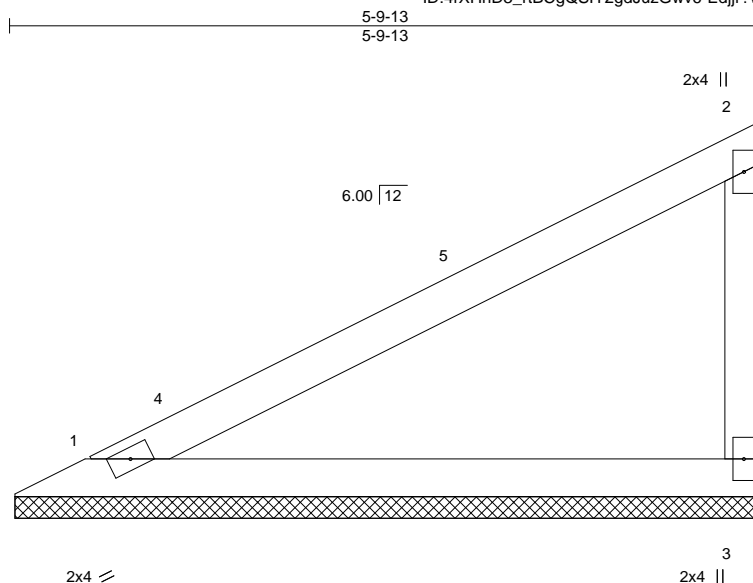
|  |             |                      |          |          |  |
|--|-------------|----------------------|----------|----------|--|
| Job<br>3043214   | Truss<br>V7 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | SUMMIT/COBEY CREEK #23/MO<br>149282499 |
| Builders FirstSource (Valley Center), Valley Center, KS - 67147, |             |                      |          |          | Job Reference (optional)               |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 11:59:07 2021 Page 1

ID:4rXHhD3\_rtBCgQSIY2gdJuzGwv6-Edjir?wkQKfCWdLa45zIAhre29KO0Y9qpxGLaSy8jul



Scale = 1:17.8

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in   | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.49  | Vert(LL) | n/a  | -     | n/a    | 999 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.27  | Vert(CT) | n/a  | -     | n/a    | 999 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.00  | Horz(CT) | 0.00 | 3     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P |          |      |       |        |     | Weight: 16 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-9-13 oc purlins, except end verticals.

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

#### REACTIONS.

(size) 1=5-9-5, 3=5-9-5

Max Horz 1=105(LC 9)

Max Uplift 1=-38(LC 12), 3=-65(LC 12)

Max Grav 1=227(LC 1), 3=227(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-8-1 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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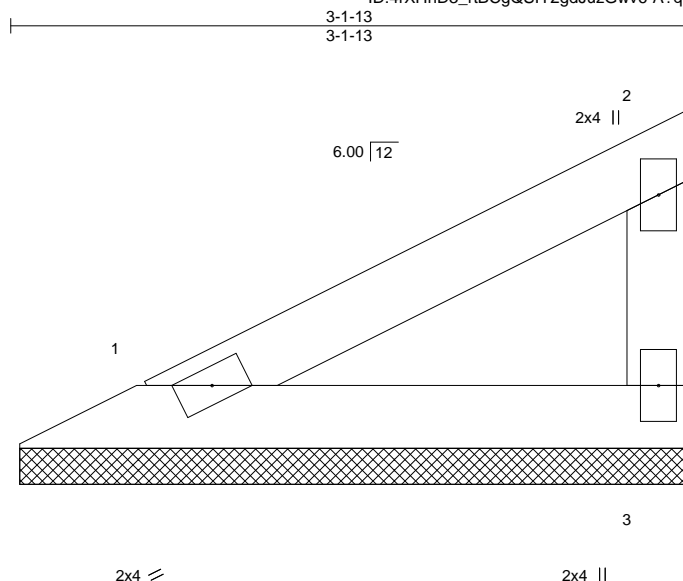
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|  |             |                      |          |          |  |
|--|-------------|----------------------|----------|----------|--|
| Job<br>3043214   | Truss<br>V8 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | SUMMIT/COBEY CREEK #23/MO<br>149282500 |
| Builders FirstSource (Valley Center), Valley Center, KS - 67147, |             |                      |          |          | Job Reference (optional)               |

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Scale = 1:10.7

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.10  | Vert(LL) | n/a      | -      | n/a | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.05  | Vert(CT) | n/a      | -      | n/a |              |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.00  | Horz(CT) | 0.00     | 3      | n/a |              |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P |          |          |        |     | Weight: 8 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-1-13 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=3-1-5, 3=3-1-5  
Max Horz 1=50(LC 9)  
Max Uplift 1=18(LC 12), 3=30(LC 12)  
Max Grav 1=107(LC 1), 3=107(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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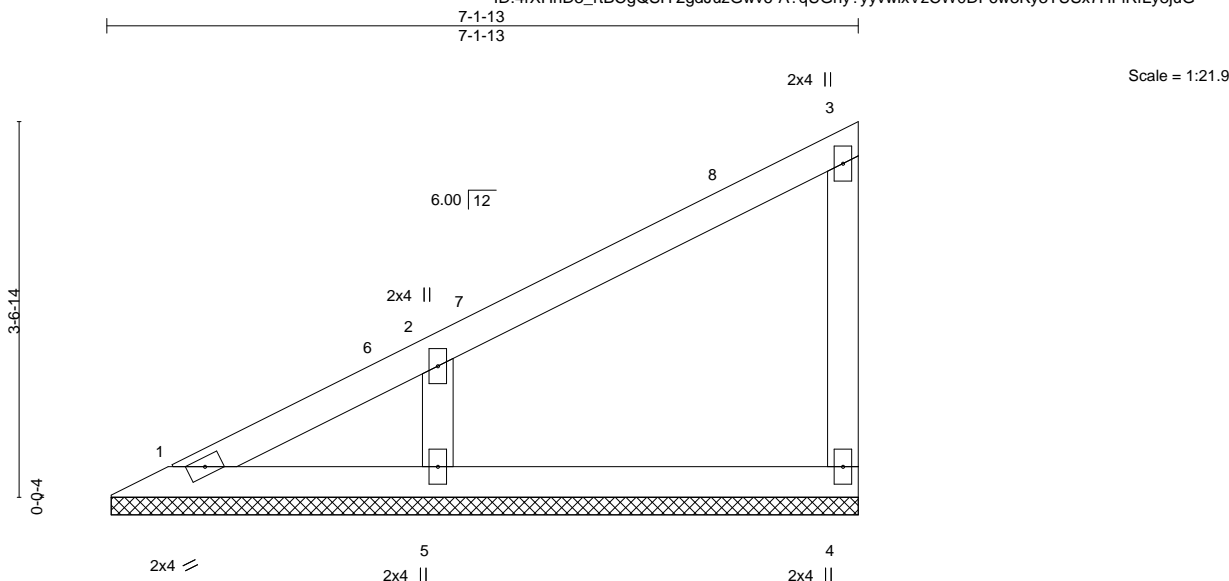
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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|  |             |                      |          |          |  |
|--|-------------|----------------------|----------|----------|--|
| Job<br>3043214   | Truss<br>V9 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | SUMMIT/COBEY CREEK #23/MO<br>I49282501 |
| Builders FirstSource (Valley Center), Valley Center, KS - 67147, |             |                      |          |          | Job Reference (optional)               |

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ID:4rXHhD3\_rtBCgQSIY2gdJuzGwv6-A?qUGhy?yyvwlxVzCW0DF6w3Ky3TUSx7HFIRfLy8juG



Scale = 1:21.9

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.19  | Vert(LL) | n/a      | -      | n/a | 999           | MT20     |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.10  | Vert(CT) | n/a      | -      | n/a | 999           | 197/144  |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.05  | Horz(CT) | -0.00    | 4      | n/a | n/a           |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P |          |          |        |     |               |          |
|               |                      |       |          |          |          |        |     | Weight: 21 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=7-1-5, 4=7-1-5, 5=7-1-5  
Max Horz 1=133(LC 9)  
Max Uplift 4=30(LC 9), 5=123(LC 12)  
Max Grav 1=78(LC 20), 4=140(LC 1), 5=371(LC 1)

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

WEBS 2-5=-289/264

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 7-0-1 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=123.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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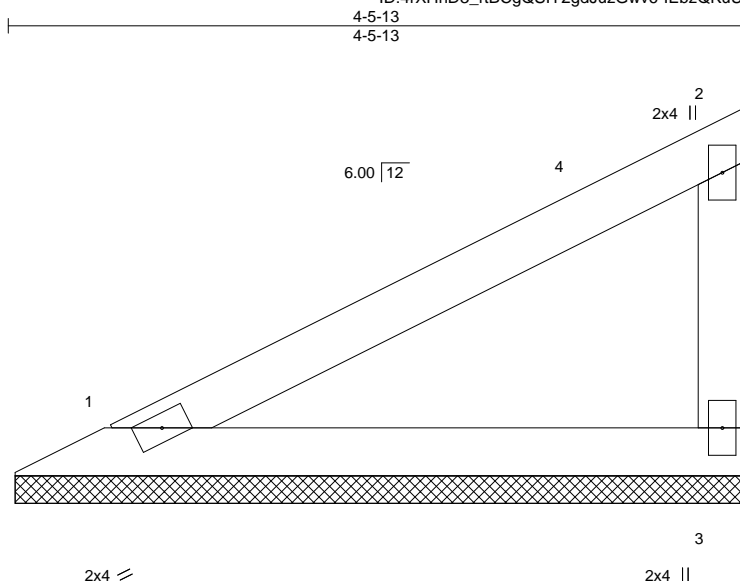
|         |       |            |     |     |                           |           |
|---------|-------|------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | SUMMIT/COBEY CREEK #23/MO | I49282502 |
| 3043214 | V10   | Valley     | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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Scale = 1:14.0

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in   | (loc) | L/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.25  | Vert(LL) | n/a  | -     | n/a    | 999 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.14  | Vert(CT) | n/a  | -     | n/a    | 999 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.00  | Horz(CT) | 0.00 | 3     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P |          |      |       |        |     | Weight: 12 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-5-13 oc purlins, except end verticals.

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

#### REACTIONS.

(size) 1=4-5-5, 3=4-5-5

Max Horz 1=77(LC 9)

Max Uplift 1=28(LC 12), 3=48(LC 12)

Max Grav 1=167(LC 1), 3=167(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-4-1 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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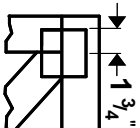
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



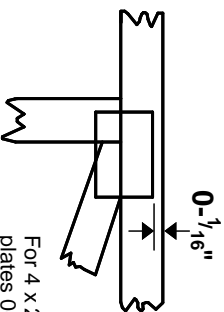
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

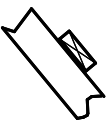
**\* Plate location details available in MITek 20/20 software or upon request.**

## PLATE SIZE

**4 X 4**

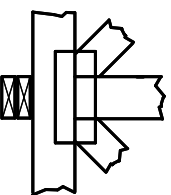
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



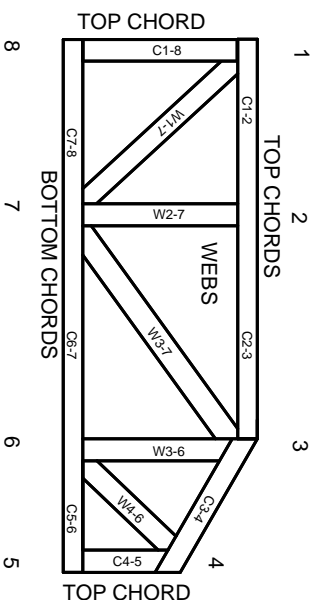
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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Mittek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



# 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.