



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

RE: 0226-003 - Grand

**MiTek, Inc.**

16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200

**Site Information:**

Customer Info: SCCI Project Name: . Model: .  
Lot/Block: . Subdivision: .  
Address: ., .  
City: Lake City State: FL

**Name Address and License # of Structural Engineer of Record, If there is one, for the building.**

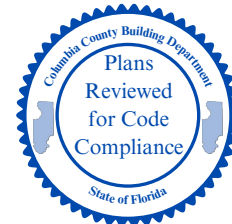
Name: License #:  
Address:  
City: State:

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

Design Code: FBC2023/TPI2014 Design Program: MiTek 20/20 8.8  
Wind Code: ASCE 7-22 Wind Speed: 130 mph  
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 9 individual, Truss Design Drawings and 0 Additional Drawings.  
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

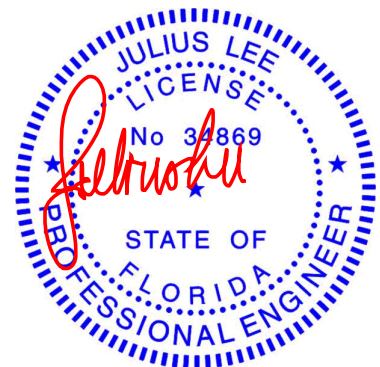
| No. | Seal#     | Truss Name | Date   |
|-----|-----------|------------|--------|
| 1   | T40021803 | A01        | 2/3/26 |
| 2   | T40021804 | A02        | 2/3/26 |
| 3   | T40021805 | A03        | 2/3/26 |
| 4   | T40021806 | A04        | 2/3/26 |
| 5   | T40021807 | CJ01       | 2/3/26 |
| 6   | T40021808 | J01        | 2/3/26 |
| 7   | T40021809 | J02        | 2/3/26 |
| 8   | T40021810 | J03        | 2/3/26 |
| 9   | T40021811 | J04        | 2/3/26 |



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

Truss Design Engineer's Name: Lee, Julius  
My license renewal date for the state of Florida is February 28, 2027.

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



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

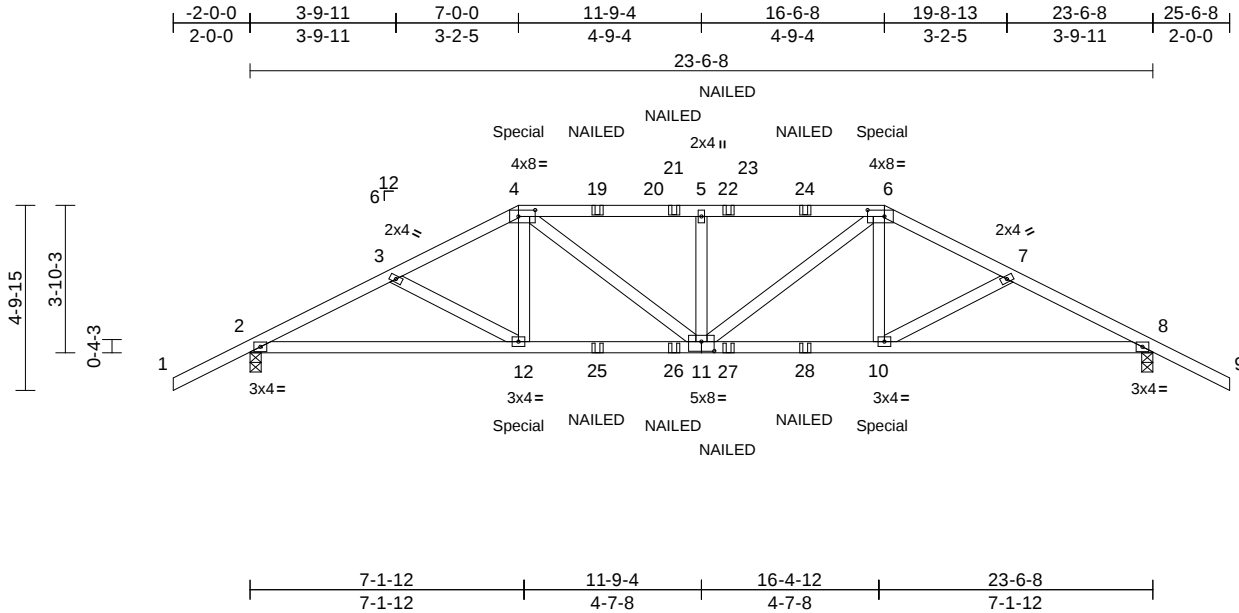
February 3, 2026

|          |       |            |     |          |                          |           |
|----------|-------|------------|-----|----------|--------------------------|-----------|
| Job      | Truss | Truss Type | Qty | Ply      | Grand                    | T40021803 |
| 0226-003 | A01   | Hip Girder | 2   | <b>2</b> | Job Reference (optional) |           |

Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:60.1

Plate Offsets (X, Y): [4:0-5-4,0-2-0], [6:0-5-4,0-2-0], [11:0-4-0,0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.34 | Vert(LL) | -0.08 | 10-11 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.46 | Vert(CT) | -0.17 | 11-12 | >999   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB        | 0.11 | Horz(CT) | 0.06  | 8     | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | FBC2023/TPI2014 | Matrix-MS |      |          |       |       |        |     | Weight: 242 lb | FT = 20% |

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size) 2=0-3-8, 8=0-3-8  
Max Horiz 2=-74 (LC 6)  
Max Grav 2=2020 (LC 1), 8=2020 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/54, 2-3=-3779/0, 3-4=-3594/0,  
4-5=-3965/0, 5-6=-3965/0, 6-7=-3594/0,  
7-8=-3779/0, 8-9=0/54  
BOT CHORD 2-12=0/3329, 10-12=0/3210, 8-10=0/3329  
WEBS 4-12=0/651, 4-11=-29/985, 5-11=-679/153,  
6-11=-29/985, 6-10=0/651, 3-12=-161/84,  
7-10=-161/84

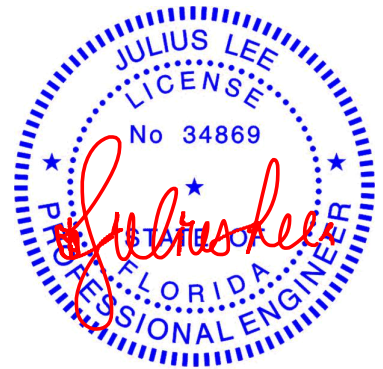
#### NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Web 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 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional); cantilever left and right exposed;  
end vertical left and right exposed; Lumber DOL=1.60  
plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- "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) 225 lb down and 76 lb up at 7-0-0, and 225 lb down and 76 lb up at 16-6-8 on top chord, and 200 lb down at 11-9-4, and 353 lb down at 7-0-0, and 353 lb down at 16-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-4=-60, 4-6=-60, 6-9=-60, 13-16=-20  
Concentrated Loads (lb)  
Vert: 4=-177 (B), 6=-177 (B), 12=-320 (B), 11=-200 (F), 10=-320 (B), 19=-121 (B), 21=-121 (B), 22=-121 (B), 24=-121 (B), 25=-59 (B), 26=-59 (B), 27=-59 (B), 28=-59 (B)



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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

February 3, 2026

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

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

**MiTek®**

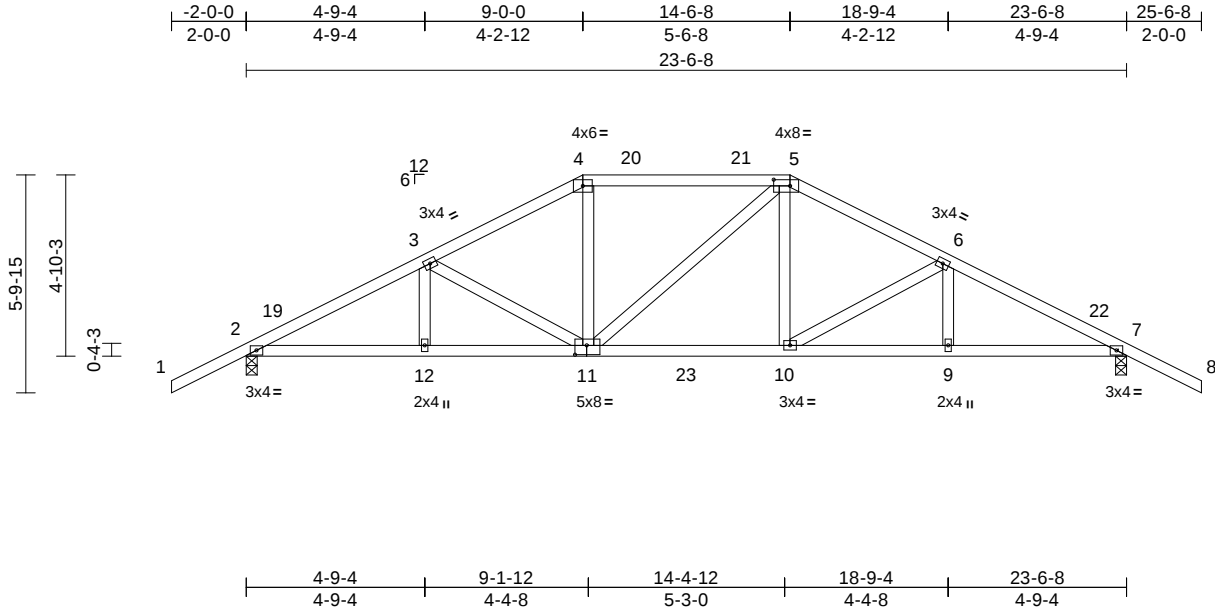
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Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

|          |       |            |     |     |                          |           |
|----------|-------|------------|-----|-----|--------------------------|-----------|
| Job      | Truss | Truss Type | Qty | Ply | Grand                    | T40021804 |
| 0226-003 | A02   | Hip        | 2   | 1   | Job Reference (optional) |           |

Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:61.6

Plate Offsets (X, Y): [5:0-5-4,0-2-0], [11:0-3-12,0-3-0]

| Loading                 | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP    |
|-------------------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------|
| TCLL (roof)             | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.40 | Vert(LL) | -0.10 | 10-11  | >999 | 240    | 244/190 |
| TCDL                    | 10.0  | Lumber DOL      | 1.25            | BC        | 0.85 | Vert(CT) | -0.22 | 10-11  | >999 | 180    |         |
| BCLL                    | 0.0*  | Rep Stress Incr | NO              | WB        | 0.14 | Horz(CT) | 0.06  | 7      | n/a  | n/a    |         |
| BCDL                    | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |        |      |        |         |
| Weight: 123 lb FT = 20% |       |                 |                 |           |      |          |       |        |      |        |         |

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 2=0-3-8, 7=0-3-8  
Max Horiz 2=-91 (LC 10)  
Max Uplift 2=-48 (LC 12), 7=-48 (LC 12)  
Max Grav 2=1162 (LC 1), 7=1162 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/54, 2-3=-1897/88, 3-4=-1583/110, 4-5=-1375/119, 5-6=-1580/110, 6-7=-1897/88, 7-8=0/54  
BOT CHORD 2-12=0/1647, 10-12=0/1647, 9-10=-15/1647, 7-9=-15/1647  
WEBS 3-11=-324/45, 4-11=0/421, 5-11=-110/107, 5-10=0/422, 6-10=-326/44, 3-12=0/143, 6-9=0/145

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 9-0-0, Zone2 9-0-0 to 13-2-15, Zone1 13-2-15 to 14-6-8, Zone2 14-6-8 to 18-9-4, Zone1 18-9-4 to 25-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 2 and 48 lb uplift at joint 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 200 lb down and 15 lb up at 11-9-4 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=1.25, Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-4=-60, 4-5=-60, 5-8=-60, 13-16=-20  
Concentrated Loads (lb)  
Vert: 23=-200 (F)



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

February 3, 2026

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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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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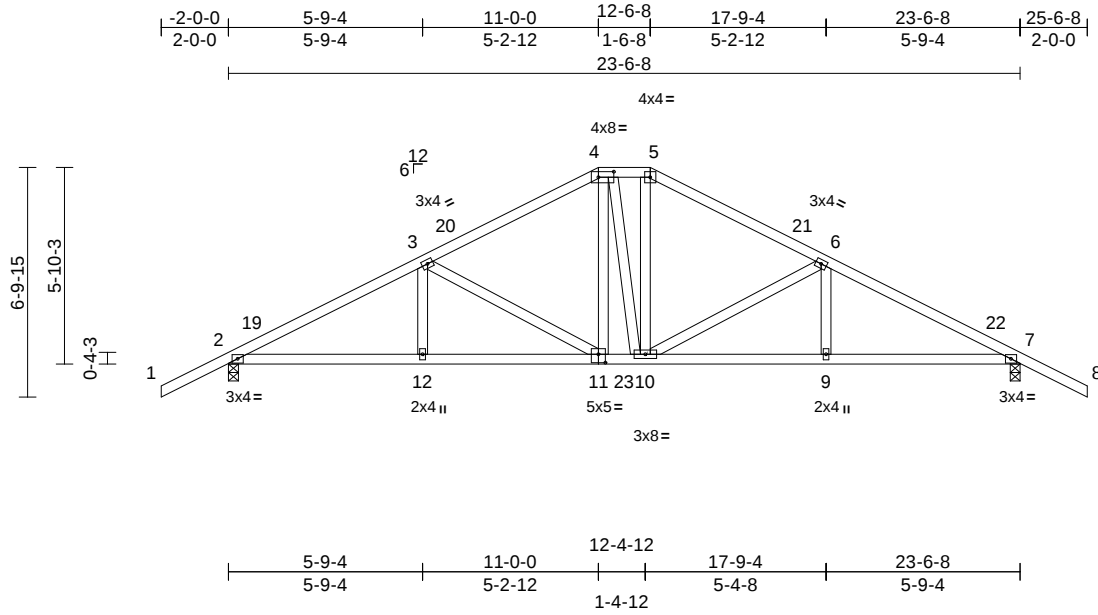
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Chesterfield, MO 63017  
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|          |       |            |     |     |                          |           |
|----------|-------|------------|-----|-----|--------------------------|-----------|
| Job      | Truss | Truss Type | Qty | Ply | Grand                    |           |
| 0226-003 | A03   | Hip        | 2   | 1   | Job Reference (optional) | T40021805 |

Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:68.5

Plate Offsets (X, Y): [4:0-5-8,0-2-0], [11:0-2-8,0-3-0]

| Loading                 | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP    |
|-------------------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------|
| TCLL (roof)             | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.31 | Vert(LL) | -0.07 | 10-11  | >999 | 240    | 244/190 |
| TCDL                    | 10.0  | Lumber DOL      | 1.25            | BC        | 0.47 | Vert(CT) | -0.14 | 11-12  | >999 | 180    |         |
| BCLL                    | 0.0*  | Rep Stress Incr | NO              | WB        | 0.32 | Horz(CT) | 0.06  | 7      | n/a  | n/a    |         |
| BCDL                    | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |        |      |        |         |
| Weight: 130 lb FT = 20% |       |                 |                 |           |      |          |       |        |      |        |         |

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 2=0-3-8, 7=0-3-8  
Max Horiz 2=-107 (LC 10)  
Max Uplift 2=-48 (LC 12), 7=-48 (LC 12)  
Max Grav 2=1162 (LC 1), 7=1162 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/54, 2-3=-1879/76, 3-4=-1408/105,  
4-5=-1195/115, 5-6=-1403/105, 6-7=-1878/76,  
7-8=0/54  
BOT CHORD 2-12=0/1624, 10-12=0/1624, 9-10=0/1623,  
7-9=0/1623  
WEBS 3-12=0/229, 3-11=-502/56, 4-11=0/388,  
4-10=-104/157, 5-10=-1/413, 6-10=-503/56,  
6-9=0/228

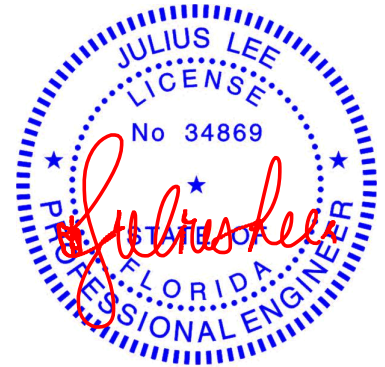
#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Zone3 -2-0-0 to 1-0-0,  
Zone1 1-0-0 to 11-0-0, Zone3 11-0-0 to 12-6-8, Zone2  
12-6-8 to 16-9-7, Zone1 16-9-7 to 25-6-8 zone;  
cantilever left and right exposed ; end vertical left and  
right exposed;C-C for members and forces & MWFRS  
for reactions shown; Lumber DOL=1.60 plate grip  
DOL=1.60
- Building Designer / Project engineer responsible for  
verifying applied roof live load shown covers rain loading  
requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.

- This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 48 lb uplift at joint  
2 and 48 lb uplift at joint 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.
- Hanger(s) or other connection device(s) shall be  
provided sufficient to support concentrated load(s) 200  
lb down and 15 lb up at 11-9-4 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=1.25,  
Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-4=-60, 4-5=-60, 5-8=-60, 13-16=-20  
Concentrated Loads (lb)  
Vert: 23=-200 (F)



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Date:

February 3, 2026

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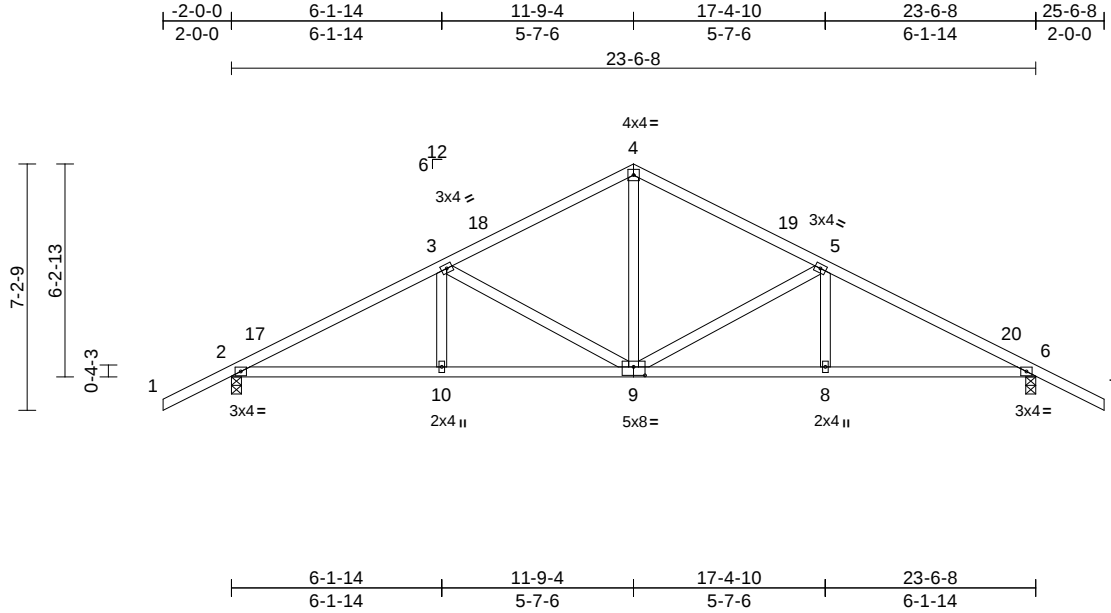
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Chesterfield, MO 63017  
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|          |       |            |     |     |                          |           |
|----------|-------|------------|-----|-----|--------------------------|-----------|
| Job      | Truss | Truss Type | Qty | Ply | Grand                    | T40021806 |
| 0226-003 | A04   | Common     | 3   | 1   | Job Reference (optional) |           |

Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:67.4

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

| Loading                 | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP    |
|-------------------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------|
| TCLL (roof)             | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.36 | Vert(LL) | -0.07 | 9      | >999 | 240    | MT20    |
| TCDL                    | 10.0  | Lumber DOL      | 1.25            | BC        | 0.51 | Vert(CT) | -0.14 | 8-9    | >999 | 180    | 244/190 |
| BCLL                    | 0.0*  | Rep Stress Incr | NO              | WB        | 0.38 | Horz(CT) | 0.06  | 6      | n/a  | n/a    |         |
| BCDL                    | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |        |      |        |         |
| Weight: 116 lb FT = 20% |       |                 |                 |           |      |          |       |        |      |        |         |

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 2=0-3-8, 6=0-3-8  
Max Horiz 2=-113 (LC 10)  
Max Uplift 2=-48 (LC 12), 6=-48 (LC 12)  
Max Grav 2=1162 (LC 1), 6=1162 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/54, 2-3=-1861/112, 3-4=-1355/144,  
4-5=-1355/144, 5-6=-1861/112, 6-7=0/54  
BOT CHORD 2-10=-4/1604, 8-10=-25/1604, 6-8=-25/1604  
WEBS 3-10=0/241, 3-9=-543/74, 4-9=-11/825,  
5-9=-543/73, 5-8=0/241

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Zone3 -2-0-0 to 1-0-0,  
Zone1 1-0-0 to 11-9-4, Zone2 11-9-4 to 16-0-3, Zone1  
16-0-3 to 25-6-8 zone; cantilever left and right exposed ;  
end vertical left and right exposed;C-C for members and  
forces & MWFRS for reactions shown; Lumber  
DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for  
verifying applied roof live load shown covers rain loading  
requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.

- \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 48 lb uplift at joint  
2 and 48 lb uplift at joint 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.
- Hanger(s) or other connection device(s) shall be  
provided sufficient to support concentrated load(s) 200  
lb down and 27 lb up at 11-9-4 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=1.25,  
Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-4=-60, 4-7=-60, 11-14=-20  
Concentrated Loads (lb)  
Vert: 9=-200 (F)



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MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

February 3, 2026

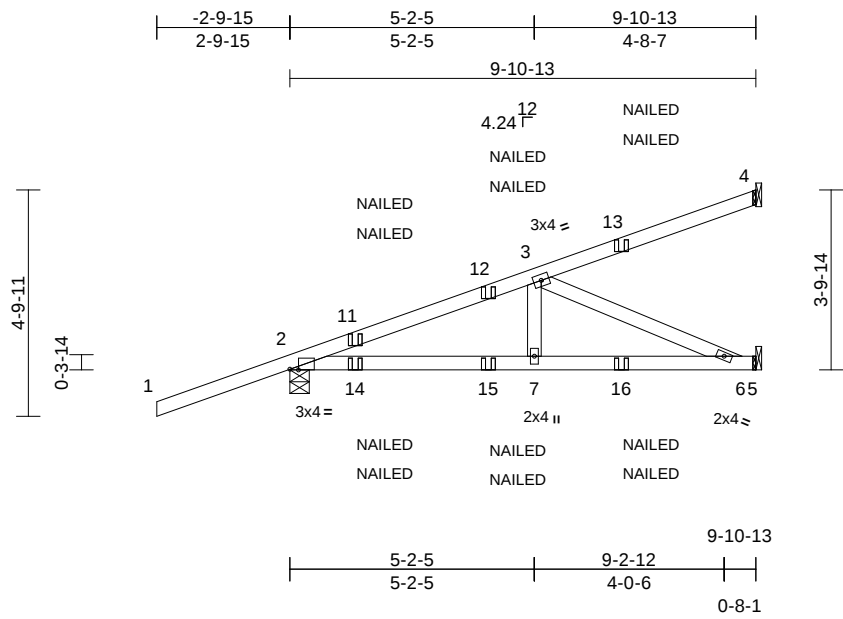
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|          |       |                     |     |     |                          |           |
|----------|-------|---------------------|-----|-----|--------------------------|-----------|
| Job      | Truss | Truss Type          | Qty | Ply | Grand                    |           |
| 0226-003 | CJ01  | Diagonal Hip Girder | 4   | 1   | Job Reference (optional) | T40021807 |



Scale = 1:49

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP          |          |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.62 | Vert(LL) | -0.06 | 7-10   | >999 | 240    | MT20          | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.60 | Vert(CT) | -0.08 | 6-7    | >999 | 180    |               |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB        | 0.25 | Horz(CT) | 0.01  | 5      | n/a  | n/a    |               |          |
| BCDL        | 10.0  | Code            | FBC2023/TPI2014 | Matrix-MS |      |          |       |        |      |        | Weight: 44 lb | FT = 20% |

LUMBER

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

BRACING

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

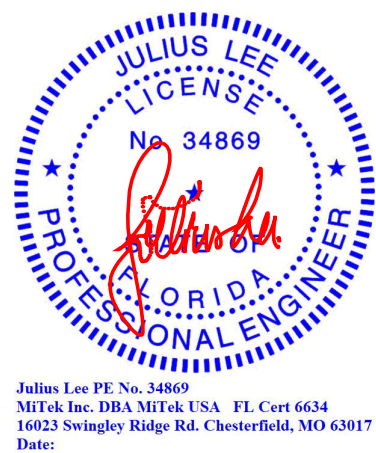
REACTIONS

|            |                                            |
|------------|--------------------------------------------|
| (size)     | 2=0-4-15, 4= Mechanical, 5= Mechanical     |
| Max Horiz  | 2=120 (LC 8)                               |
| Max Uplift | 2=-151 (LC 8), 4=-32 (LC 8)                |
| Max Grav   | 2=537 (LC 13), 4=141 (LC 1), 5=315 (LC 14) |

FORCES

|                                            |                                    |
|--------------------------------------------|------------------------------------|
| (lb) - Maximum Compression/Maximum Tension |                                    |
| TOP CHORD                                  | 1-2=0/57, 2-3=-745/222, 3-4=-76/38 |
| BOT CHORD                                  | 2-7=-230/657, 6-7=-31/657, 5-6=0/0 |
| WEBS                                       | 3-7=0/250, 3-6=-714/34             |

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 4 and 151 lb uplift at joint 2.  
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=1.25, Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-4=-60, 5-8=-20  
Concentrated Loads (lb)  
Vert: 11=72 (F=36, B=36), 13=-71 (F=-36, B=-36), 14=82 (F=41, B=41), 15=6 (F=3, B=3), 16=-49 (F=-24, B=-24)



February 3,2026

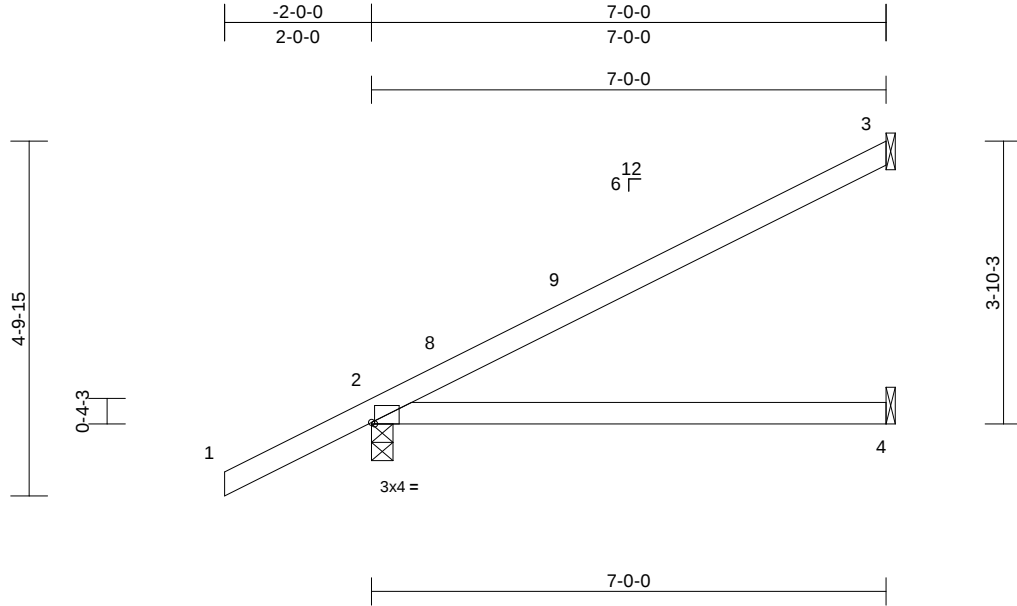
|          |       |            |     |     |                          |           |
|----------|-------|------------|-----|-----|--------------------------|-----------|
| Job      | Truss | Truss Type | Qty | Ply | Grand                    |           |
| 0226-003 | J01   | Jack-Open  | 12  | 1   | Job Reference (optional) | T40021808 |

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Scale = 1:31.4

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.57 | Vert(LL) | -0.09 | 4-7   | >969   | 240 | MT20          | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.49 | Vert(CT) | -0.20 | 4-7   | >408   | 180 |               |          |
| BCLL        | 0.0*  | Rep Stress Incr | YES             | WB        | 0.00 | Horz(CT) | 0.00  | 2     | n/a    | n/a |               |          |
| BCDL        | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |       |        |     | Weight: 26 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

#### BRACING

TOP CHORD Structural wood sheathing directly applied.

BOT CHORD Rigid ceiling directly applied.

**REACTIONS** (size) 2=0-3-8, 3= Mechanical, 4= Mechanical

Max Horiz 2=119 (LC 12)

Max Uplift 2=-37 (LC 12), 3=-42 (LC 12)

Max Grav 2=415 (LC 1), 3=181 (LC 1), 4=123 (LC 3)

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

TOP CHORD 1-2=0/54, 2-3=-227/64

BOT CHORD 2-4=-44/124

#### NOTES

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Zone3 -2-0-0 to 1-0-0,  
Zone1 1-0-0 to 6-11-4 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) Building Designer / Project engineer responsible for  
verifying applied roof live load shown covers rain loading  
requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 42 lb uplift at joint  
3 and 37 lb uplift at joint 2.

- 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.

**LOAD CASE(S)** Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
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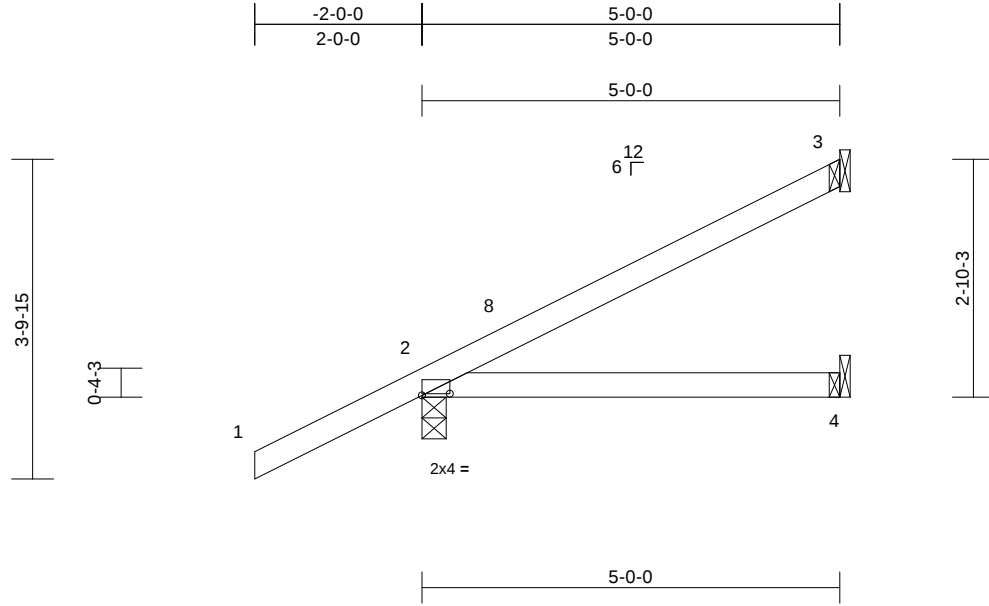
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|          |       |            |     |     |                          |           |
|----------|-------|------------|-----|-----|--------------------------|-----------|
| Job      | Truss | Truss Type | Qty | Ply | Grand                    |           |
| 0226-003 | J02   | Jack-Open  | 8   | 1   | Job Reference (optional) | T40021809 |

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Page: 1



Scale = 1:27.6

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.26 | Vert(LL) | -0.02 | 4-7   | >999   | 240 | MT20          | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.23 | Vert(CT) | -0.05 | 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            | FBC2023/TPI2014 | Matrix-AS |      |          |       |       |        |     | Weight: 19 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 2=0-3-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=96 (LC 12)  
Max Uplift 2=-47 (LC 12), 3=-26 (LC 12)  
Max Grav 2=342 (LC 1), 3=121 (LC 1), 4=86 (LC 3)

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

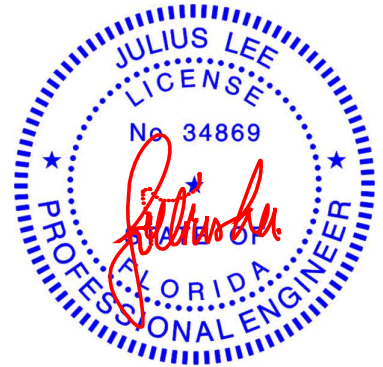
TOP CHORD 1-2=0/54, 2-3=-215/72  
BOT CHORD 2-4=-75/153

#### NOTES

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Zone3 -2-0-0 to 1-0-0,  
Zone1 1-0-0 to 4-11-4 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) Building Designer / Project engineer responsible for  
verifying applied roof live load shown covers rain loading  
requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 26 lb uplift at joint  
3 and 47 lb uplift at joint 2.

- 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.

**LOAD CASE(S)** Standard



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MiTek Inc. DBA MiTek USA FL Cert 6634  
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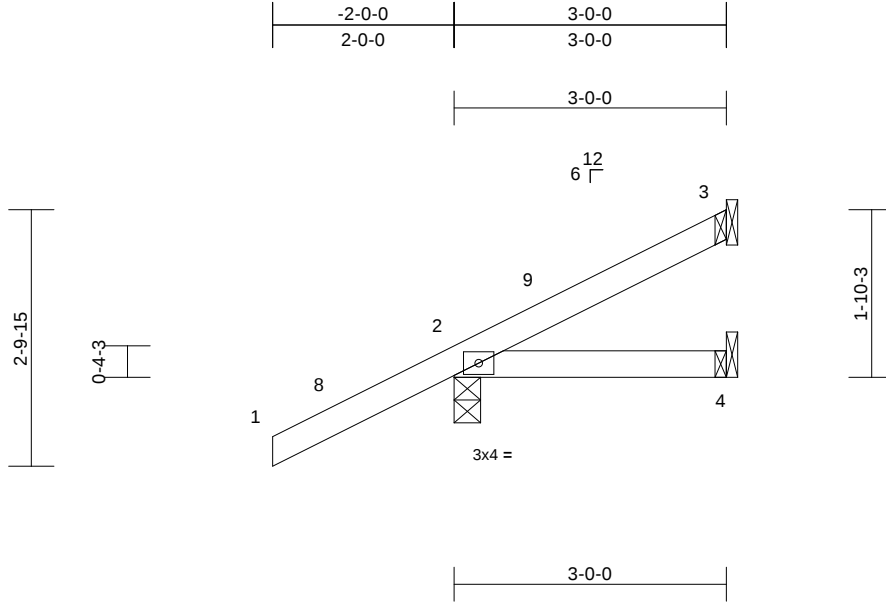
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|                          |       |            |     |     |           |
|--------------------------|-------|------------|-----|-----|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Grand     |
| 0226-003                 | J03   | Jack-Open  | 8   | 1   | T40021810 |
| Job Reference (optional) |       |            |     |     |           |

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|                |       |                 |                 |            |      |             |       |       |        |     |               |             |
|----------------|-------|-----------------|-----------------|------------|------|-------------|-------|-------|--------|-----|---------------|-------------|
| <b>Loading</b> | (psf) | <b>Spacing</b>  | 2-0-0           | <b>CSI</b> |      | <b>DEFL</b> | in    | (loc) | l/defl | L/d | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof)    | 20.0  | Plate Grip DOL  | 1.25            | TC         | 0.27 | Vert(LL)    | 0.00  | 4-7   | >999   | 240 | MT20          | 244/190     |
| TCDL           | 10.0  | Lumber DOL      | 1.25            | BC         | 0.07 | Vert(CT)    | -0.01 | 4-7   | >999   | 180 |               |             |
| BCLL           | 0.0*  | Rep Stress Incr | YES             | WB         | 0.00 | Horz(CT)    | 0.00  | 2     | n/a    | n/a |               |             |
| BCDL           | 10.0  | Code            | FBC2023/TPI2014 | Matrix-MP  |      |             |       |       |        |     | Weight: 13 lb | FT = 20%    |

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 2=0-3-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=72 (LC 12)  
Max Uplift 2=-62 (LC 12), 3=-8 (LC 12)  
Max Grav 2=278 (LC 1), 3=57 (LC 1), 4=47 (LC 3)

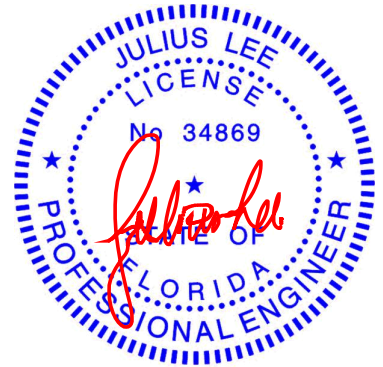
**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/54, 2-3=-185/92  
BOT CHORD 2-4=-102/165

#### NOTES

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Zone3 -2-0-0 to 1-0-0,  
Zone1 1-0-0 to 2-11-4 zone; cantilever left and right  
exposed ; end vertical left and right exposed;C-C for  
members and forces & MWFRS for reactions shown;  
Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for  
verifying applied roof live load shown covers rain loading  
requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 8 lb uplift at joint 3  
and 62 lb uplift at joint 2.
- LOAD CASE(S)** Standard



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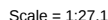
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LUMBER

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 2, 53 lb uplift at joint 4 and 29 lb uplift at joint 3.

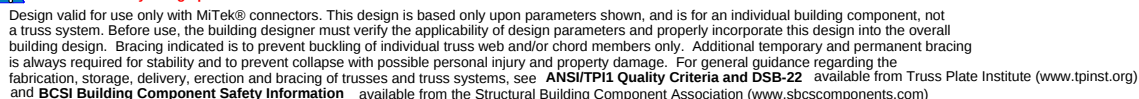
## LOAD CASE(S) Standard

| REACTIONS  | (size) | 2=0-3-8, 3= Mechanical, 4= Mechanical      |
|------------|--------|--------------------------------------------|
| Max Horiz  |        | 2=48 (LC 12)                               |
| Max Uplift |        | 2=-112 (LC 12), 3=-29 (LC 1), 4=-53 (LC 1) |
| Max Grav   |        | 2=281 (LC 1), 3=24 (LC 12), 4=39 (LC 12)   |

## NOTES

- 

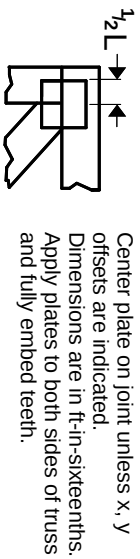
February 3, 2026



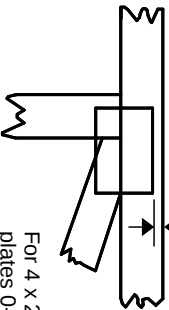
**MiTek®**  
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Chesterfield, MO 63017  
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## Symbols

### PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

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

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

### PLATE SIZE

4 X 4

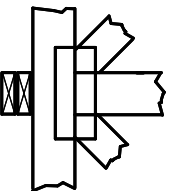
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

### LATERAL BRACING LOCATION



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

### BEARING



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

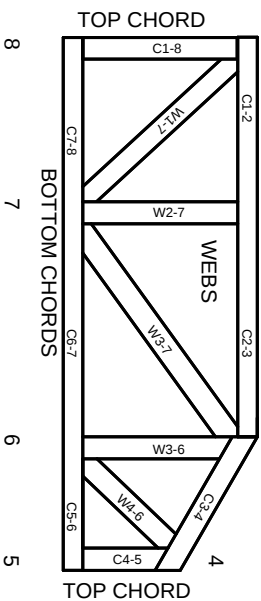
#### Industry Standards:

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

## Numbering System

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

1 2 3 Joint ID typ.



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

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

## Product Code Approvals

ICC-ES Reports:

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

## Design General Notes

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

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

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# MITek®

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

## General Safety Notes

**Failure to Follow Could Cause Property Damage or Personal Injury**

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.