MiTek

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

RE: 4609381 - MIKE TODD - YOUNG GARAGE

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

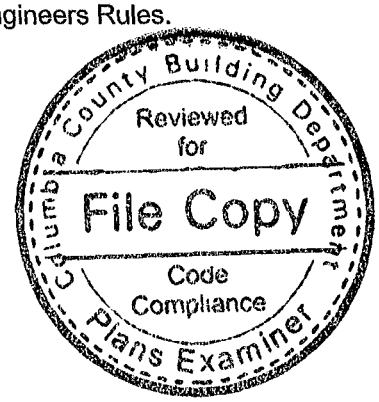
**Site Information:**
Customer Info: MIKE TODD CONST. Project Name: Young Garage Model: Custom
Lot/Block: N/A Subdivision: N/A
Address: TBD, TBD
City: Columbia Cty State: FL

**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 13 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 | T37091012 | CJ01 | 4/23/25 |
| 2 | T37091013 | CJ01A | 4/23/25 |
| 3 | T37091014 | CJ03 | 4/23/25 |
| 4 | T37091015 | CJ03A | 4/23/25 |
| 5 | T37091016 | CJ05 | 4/23/25 |
| 6 | T37091017 | CJ05A | 4/23/25 |
| 7 | T37091018 | EJ01 | 4/23/25 |
| 8 | T37091019 | HJ10 | 4/23/25 |
| 9 | T37091020 | T01 | 4/23/25 |
| 10 | T37091021 | T01A | 4/23/25 |
| 11 | T37091022 | T02 | 4/23/25 |
| 12 | T37091023 | T03 | 4/23/25 |
| 13 | T37091024 | T04 | 4/23/25 |

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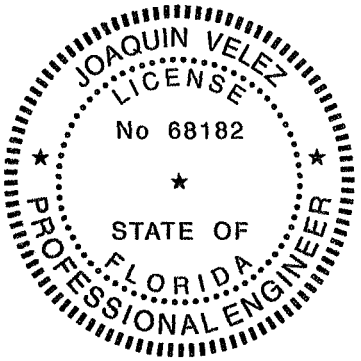
The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name: Velez, Joaquin
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




Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

April 23,2025

| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE |
|---|---|---|---|---|---|
| 4609381 | CJ01 | Jack-Open | 7 | 1 | T37091012 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:20.58 2025 Page 1
ID:7WKr8toudn35dxwKwBAfQtytHta-6R237le6oUHhD0PKGp9DhbfBVJEaHQfx7asRsBzOAwJ

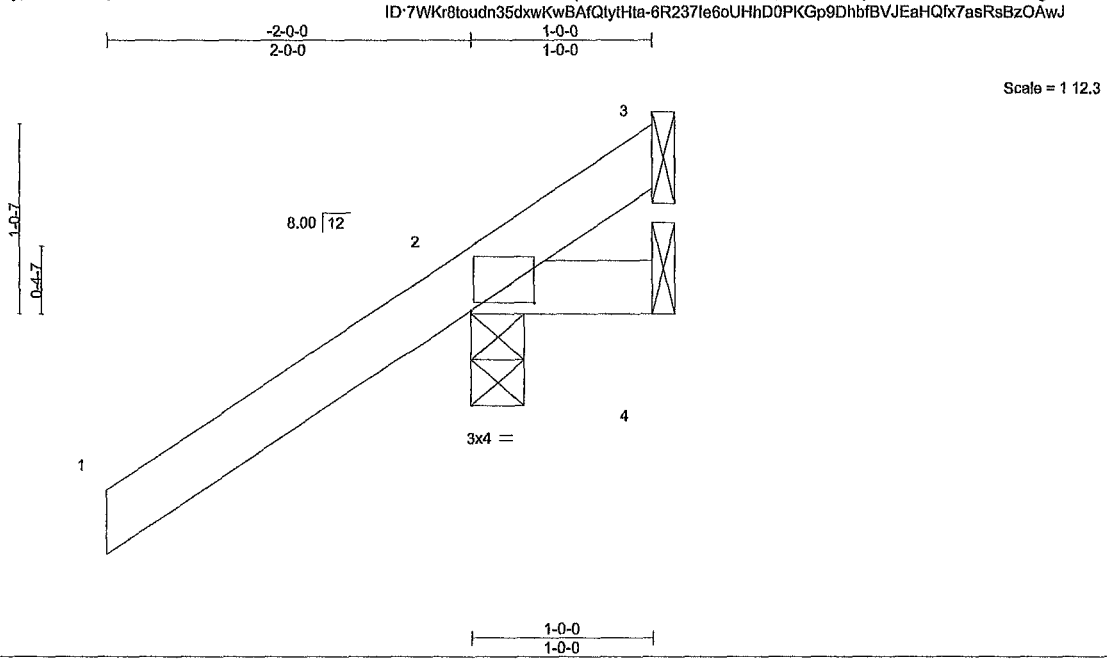



Plate Offsets (X,Y)-- [2 0-4-3,0-0-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1 25 | TC | 0.38 | Vert(LL) | 0.00 | 7 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10 0 | Lumber DOL | 1.25 | BC | 0 11 | Vert(CT) | 0 00 | 7 | >999 | 180 | | |
| BCLL | 0 0 * | Rep Stress Incr | YES | WB | 0 00 | Horz(CT) | 0 00 | 2 | n/a | n/a | | |
| BCDL | 10 0 | Code FBC2023/TPI2014 | | Matrix-MP | | | | | | | Weight: 7 lb | FT = 20% |

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

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

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=69(LC 12)
Max Uplift 3=-29(LC 1), 2=-129(LC 12), 4=-53(LC 1)
Max Grav 3=18(LC 16), 2=281(LC 1), 4=39(LC 12)

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

**NOTES-**
1) Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft; Cat. II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 zone;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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=129

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Chesterfield, MO 63017
Date:
April 23,2025




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| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE | T37091013 |
|---|---|---|---|---|---|---|
| 4609381 | CJ01A | Jack-Open | 1 | 1 | Job Reference (optional) | |

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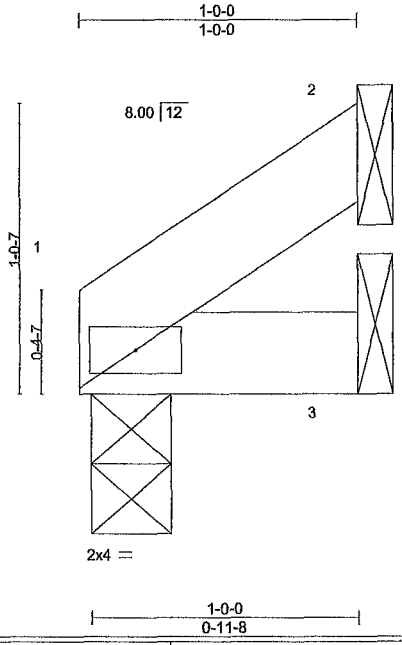


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20 0 | Plate Grip DOL | 1 25 | TC | 0 01 | Vert(LL) | -0 00 | 6 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10 0 | Lumber DOL | 1.25 | BC | 0 01 | Vert(CT) | -0.00 | 6 | >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: 4 lb | FT = 20% |

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

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

**REACTIONS.** (size) 1=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 1=25(LC 12)
Max Uplift 1=-2(LC 12), 2=-17(LC 12), 3=-5(LC 12)
Max Grav 1=40(LC 1), 2=25(LC 19), 3=18(LC 3)

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

**NOTES-**
1) Wind ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 zone,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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
5) Refer to girder(s) for truss to truss connections
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2, 3

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:
April 23,2025




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| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE | T37091014 |
|---|---|---|---|---|---|---|
| 4609381 | CJ03 | Jack-Open | 7 | 1 | Job Reference (optional) | |

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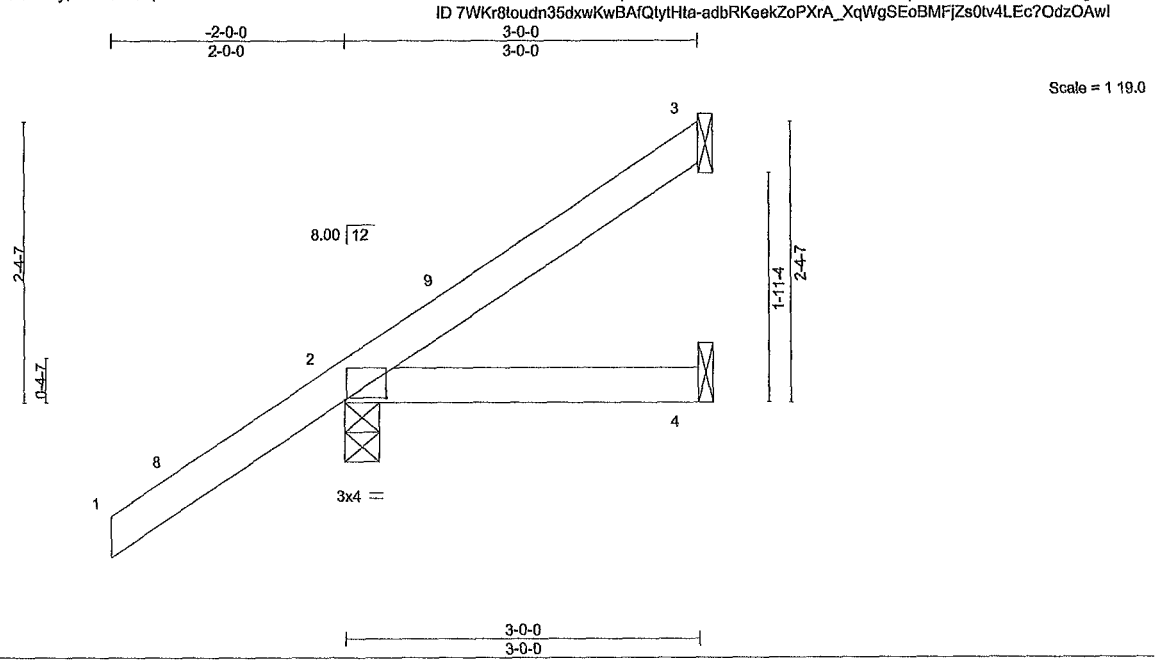


Plate Offsets (X,Y)-- [2 0-4-3,0-0-4]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | In | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20 0 | Plate Grip DOL | 1.25 | TC | 0.38 | Vert(LL) | -0 01 | 4-7 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10 0 | Lumber DOL | 1.25 | BC | 0.10 | 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. 14 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) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=120(LC 12)
Max Uplift 3=-44(LC 12), 2=-84(LC 12)
Max Grav 3=64(LC 19), 2=278(LC 1), 4=48(LC 3)

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

**NOTES-**
1) Wind ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft, Cat. II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 2-11-4 zone,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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2

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Joaquin Velez PE No.68182
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Chesterfield, MO 63017
Date:
April 23,2025




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| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE |
|---|---|---|---|---|---|
| 4609381 | CJ03A | Jack-Open | 1 | 1 | T37091015 |
| | | | | | Job Reference (optional) |

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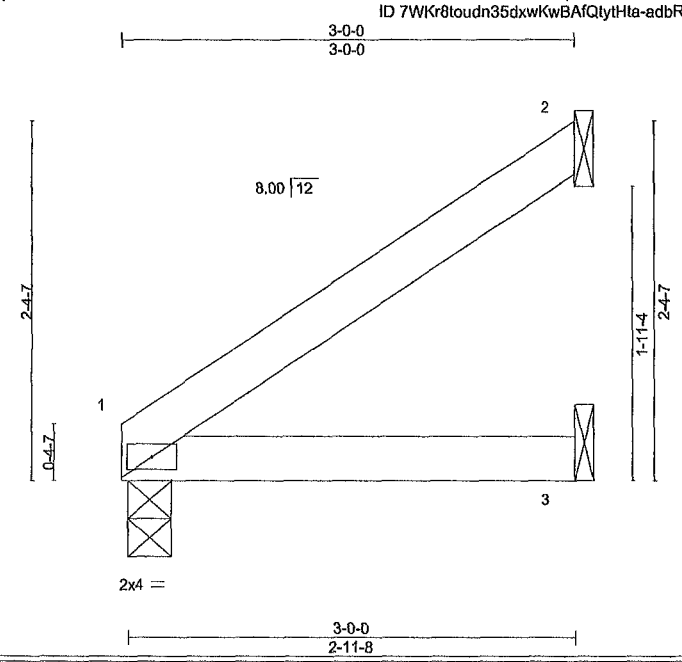


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1 25 | TC | 0 11 | Vert(LL) | 0.01 | 3-6 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10 0 | Lumber DOL | 1.25 | BC | 0.11 | Vert(CT) | -0 01 | 3-6 | >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 10 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) 1=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 1=76(LC 12)
Max Uplift 1=-9(LC 12), 2=-56(LC 12), 3=-6(LC 12)
Max Grav 1=118(LC 1), 2=82(LC 19), 3=55(LC 3)

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

**NOTES-**
1) Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf, BCDL=3 0psf; h=20ft; Cat. II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 zone;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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2, 3

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:
April 23,2025




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Chesterfield, MO 63017
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| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE |
|---|---|---|---|---|---|
| 4609381 | CJ05 | Jack-Open | 7 | 1 | T37091016 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11.21 00 2025 Page 1
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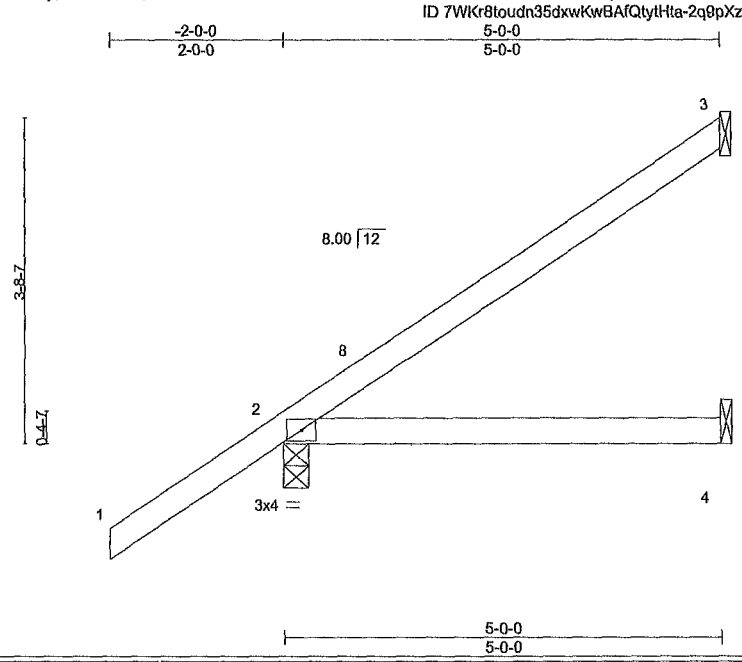


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1 25 | TC | 0 38 | Vert(LL) | 0 03 | 4-7 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10 0 | Lumber DOL | 1 25 | BC | 0.24 | 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-MP | | | | | | | Weight. 20 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 5-0-0 oc purlins
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=171(LC 12)
Max Uplift 3=-89(LC 12), 2=-81(LC 12)
Max Grav 3=130(LC 19), 2=342(LC 1), 4=89(LC 3)

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

**NOTES-**
1) Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3.0psf; h=20ft, Cat. II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 4-11-4 zone;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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2

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| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE |
|---|---|---|---|---|---|
| 4609381 | CJ05A | Jack-Open | 1 | 1 | T37091017 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:21:00 2025 Page 1
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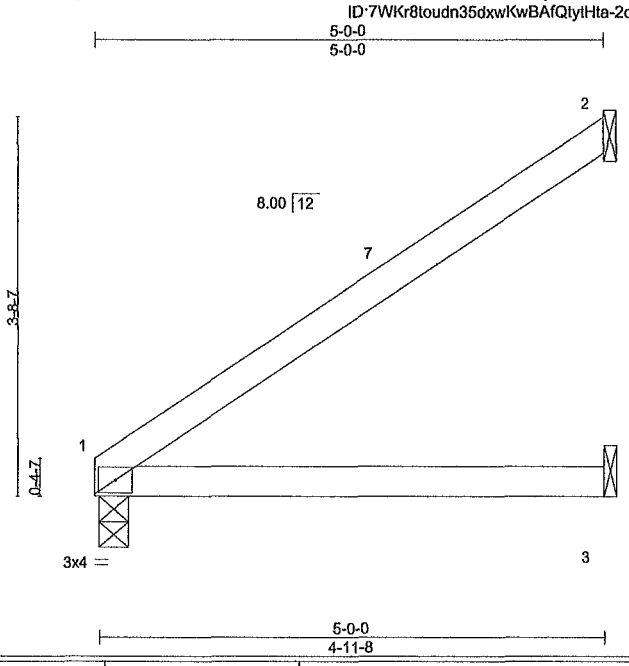


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20 0 | Plate Grip DOL | 1.25 | TC | 0 34 | Vert(LL) | 0.04 | 3-6 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1 25 | BC | 0 28 | Vert(CT) | -0.07 | 3-6 | >897 | 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: 17 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 5-0-0 oc purlins
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

**REACTIONS.** (size) 1=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 1=127(LC 12)
Max Uplift 1=-16(LC 12), 2=-96(LC 12), 3=-7(LC 12)
Max Grav 1=198(LC 1), 2=141(LC 19), 3=93(LC 3)

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

**NOTES-**
1) Wind ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3.0psf; h=20ft, Cat. II, Exp B, Encl GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 0-0-0 to 3-0-0, Zone1 3-0-0 to 4-11-4 zone;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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2, 3

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Chesterfield, MO 63017
Date:
April 23,2025




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314.434.1200 / MiTek-US.com

| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE |
|---|---|---|---|---|---|
| 4609381 | EJ01 | Jack-Partial | 14 | 1 | T37091018 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:21:00 2025 Page 1
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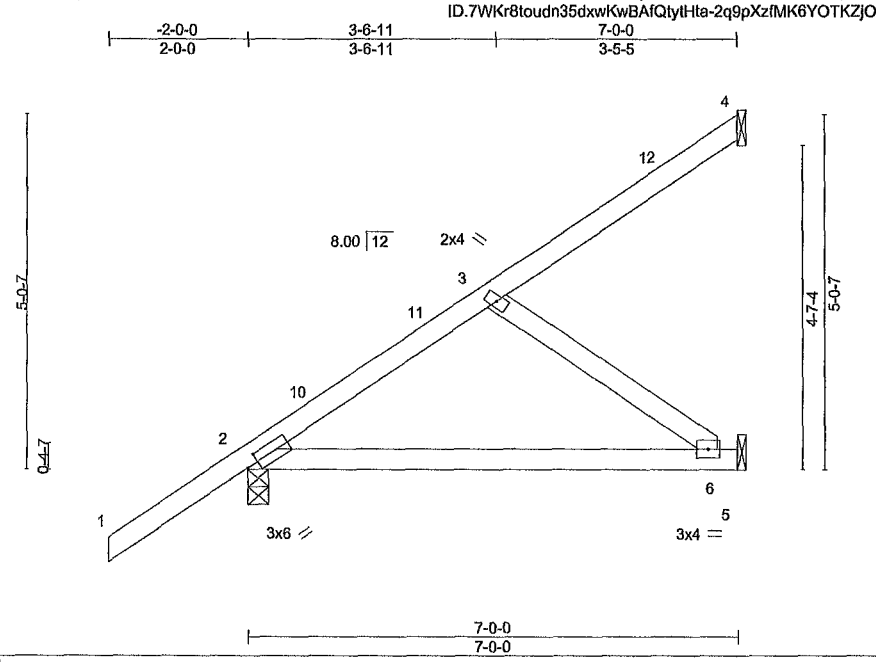


Plate Offsets (X,Y)-- [2 0-2-0,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1 25 | TC | 0.35 | Vert(LL) | -0.08 | 6-9 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.44 | Vert(CT) | -0 15 | 6-9 | >542 | 180 | | |
| BCLL | 0 0 * | Rep Stress Incr | YES | WB | 0.08 | Horz(CT) | 0.00 | 2 | n/a | n/a | | |
| BCDL | 10 0 | Code FBC2023/TPI2014 | | Matrix-MS | | | | | | | Weight. 32 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No 3

**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) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=215(LC 12)
Max Uplift 4=-56(LC 12), 2=-87(LC 12), 5=-63(LC 12)
Max Grav 4=89(LC 19), 2=415(LC 1), 5=190(LC 19)

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

**NOTES-**
1) Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft; Cat. II; Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 6-11-4 zone,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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5

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April 23,2025




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| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE |
|---|---|---|---|---|---|
| 4609381 | HJ10 | Diagonal Hip Girder | 4 | 1 | T37091019 |
| | | | | | Job Reference (optional) |

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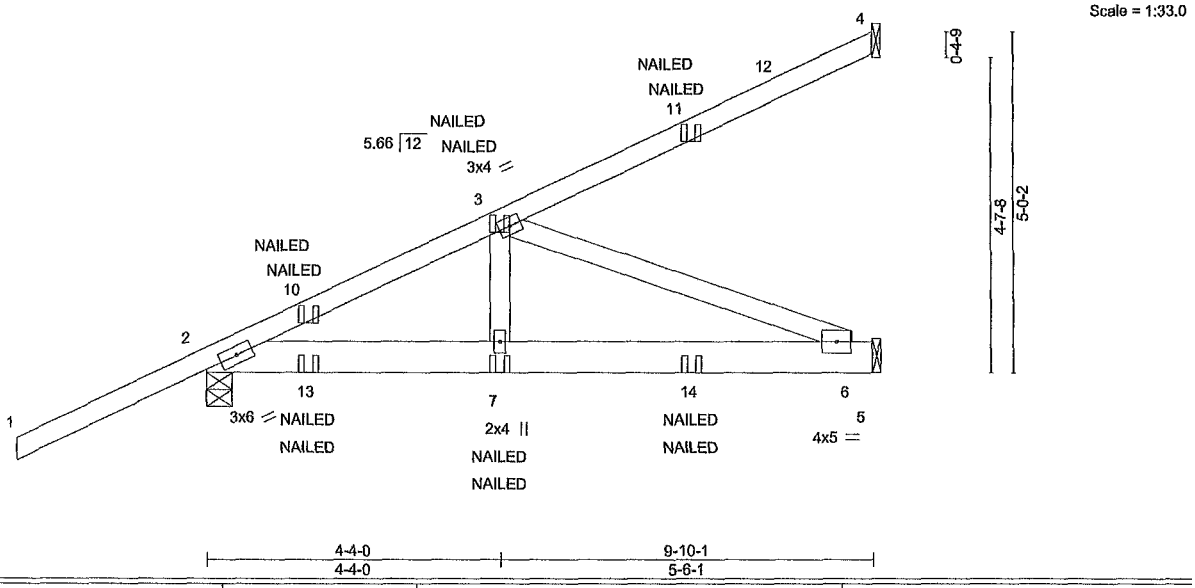


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20 0 | Plate Grip DOL | 1.25 | TC | 0.65 | Vert(LL) | -0 02 | 6-7 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10 0 | Lumber DOL | 1.25 | BC | 0.38 | Vert(CT) | -0 04 | 6-7 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.41 | Horz(CT) | -0.01 | 4 | n/a | n/a | | |
| BCDL | 10 0 | Code FBC2023/TPI2014 | | Matrix-MS | | | | | | | Weight: 54 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP No 2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No 3

**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) 4=Mechanical, 2=0-4-9, 5=Mechanical
Max Horz 2=215(LC 8)
Max Uplift 4=-108(LC 8), 2=-256(LC 8), 5=-97(LC 8)
Max Grav 4=165(LC 1), 2=541(LC 38), 5=310(LC 35)

**FORCES.** (lb) - Max. Comp./Max. Ten - All forces 250 (lb) or less except when shown
TOP CHORD 2-3=-781/232
BOT CHORD 2-7=-301/622, 6-7=-301/622
WEBS 3-6=-667/323

**NOTES-**
1) Wind ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft; Cat. II, Exp B, Encl GCpi=0 18, MWFRS (envelope) gable end zone, 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 4=108, 2=256.
7) "NAILED" indicates 3-10d (0 148"x3") or 2-12d (0 148"x3 25") toe-nails per NDS guidlines
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 (plf)
Vert: 1-4=-60, 2-5=-20
Concentrated Loads (lb)
Vert: 7=6(F=3, B=3) 10=73(F=36, B=36) 11=-69(F=-35, B=-35) 13=82(F=41, B=41) 14=-51(F=-26, B=-26)

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Date:
April 23,2025



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| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE |
|---|---|---|---|---|---|
| 4609381 | T01 | Hip Girder | 1 | 1 | T37091020 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:21 02 2025 Page 1
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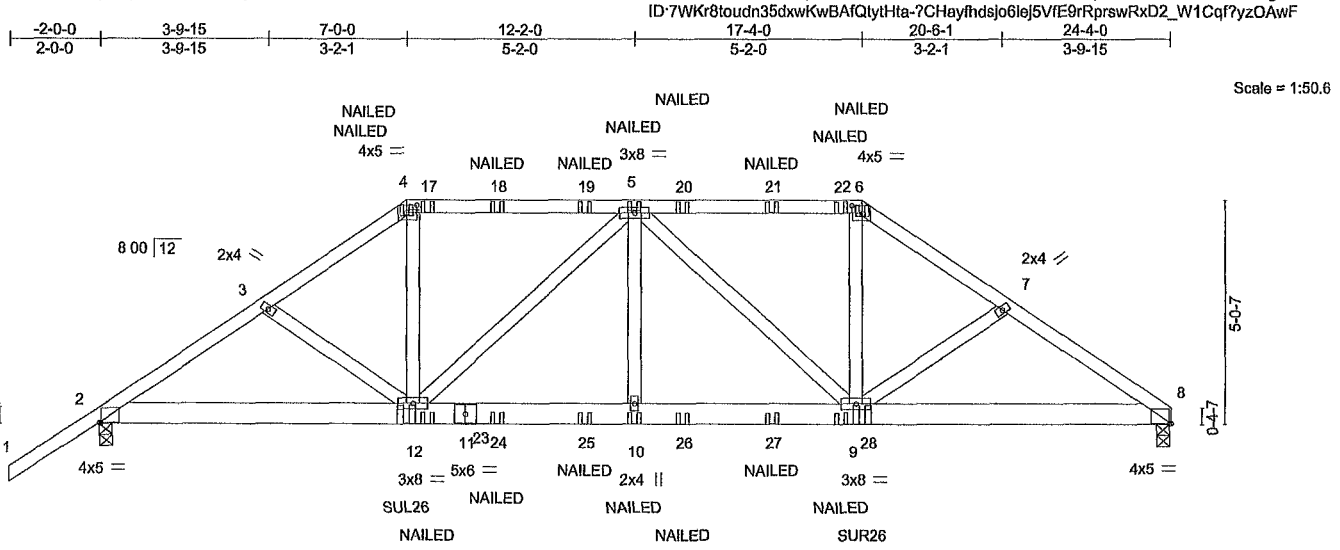


Plate Offsets (X,Y)-- [2 0-0-7,0-0-1], [4 0-2-12,0-2-0], [6 0-2-12,0-2-0], [8:0-0-7,0-0-1]

| LOADING (psf) | SPACING- 2-0-0 | CSI. | DEFL. in (loc) l/defl L/d | PLATES GRIP |
|---|---|---|---|---|
| TCLL 20.0 | Plate Grip DOL 1.25 | TC 0.49 | Vert(LL) 0 13 10-12 >999 240 | MT20 244/190 |
| TCDL 10.0 | Lumber DOL 1 25 | BC 0 72 | Vert(CT) -0 22 10-12 >999 180 | |
| BCLL 0 0 * | Rep Stress Incr NO | WB 0 75 | Horz(CT) 0.07 8 n/a n/a | |
| BCDL 10 0 | Code FBC2023/TPI2014 | Matrix-MS | | Weight: 151 lb FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No 2
WEBS 2x4 SP No.3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-1-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-5-5 oc bracing

**REACTIONS.** (size) 8=0-3-8, 2=0-3-8
Max Horz 2=138(LC 7)
Max Uplift 8=-767(LC 9), 2=-820(LC 8)
Max Grav 8=1914(LC 1), 2=2044(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten - All forces 250 (lb) or less except when shown
TOP CHORD 2-3=-3199/1323, 3-4=-3036/1292, 4-5=-2518/1126, 5-6=-2533/1138, 6-7=-3056/1308, 7-8=-3214/1342
BOT CHORD 2-12=-1113/2649, 10-12=-1292/3121, 9-10=-1292/3121, 8-9=-1055/2644
WEBS 4-12=-491/1319, 5-12=-862/430, 5-10=-243/696, 5-9=-852/426, 6-9=-500/1335

**NOTES-**
1) Unbalanced roof live loads have been considered for this design
2) Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone, Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=767, 2=820
8) Use Simpson Strong-Tie SUL26 (6-16d Girder, 6-10dx1 1/2 Truss) or equivalent at 7-0-0 from the left end to connect truss(es) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg down
9) Use Simpson Strong-Tie SUR26 (6-10dx1 1/2 Girder, 6-10dx1 1/2 Truss, Single Ply Girder) or equivalent at 17-4-0 from the left end to connect truss(es) to front face of bottom chord, skewed 45.0 deg to the right, sloping 0 0 deg. down
10) Fill all nail holes where hanger is in contact with lumber
11) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0 148"x3.25") toe-nails per NDS guidlines.
12) 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 (plf)
Vert: 1-4=-60, 4-6=-60, 6-8=-60, 2-8=-20

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Date:
April 23,2025

Continued on page 2

| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE |
|---|---|---|---|---|---|
| 4609381 | T01 | Hip Girder | 1 | 1 | T37091020 |
| | | | | | Job Reference (optional) |



**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 4=-80(F) 6=-80(F) 12=-235(F) 10=-158(F) 5=-22(F) 9=-235(F) 17=-22(F) 18=-22(F) 19=-22(F) 20=-22(F) 21=-22(F) 22=-22(F) 23=-158(F) 24=-158(F) 25=-158(F) 26=-158(F) 27=-158(F) 28=-158(F)

| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE | T37091021 |
|---|---|---|---|---|---|---|
| 4609381 | T01A | Hip Girder | 1 | 1 | Job Reference (optional) | |

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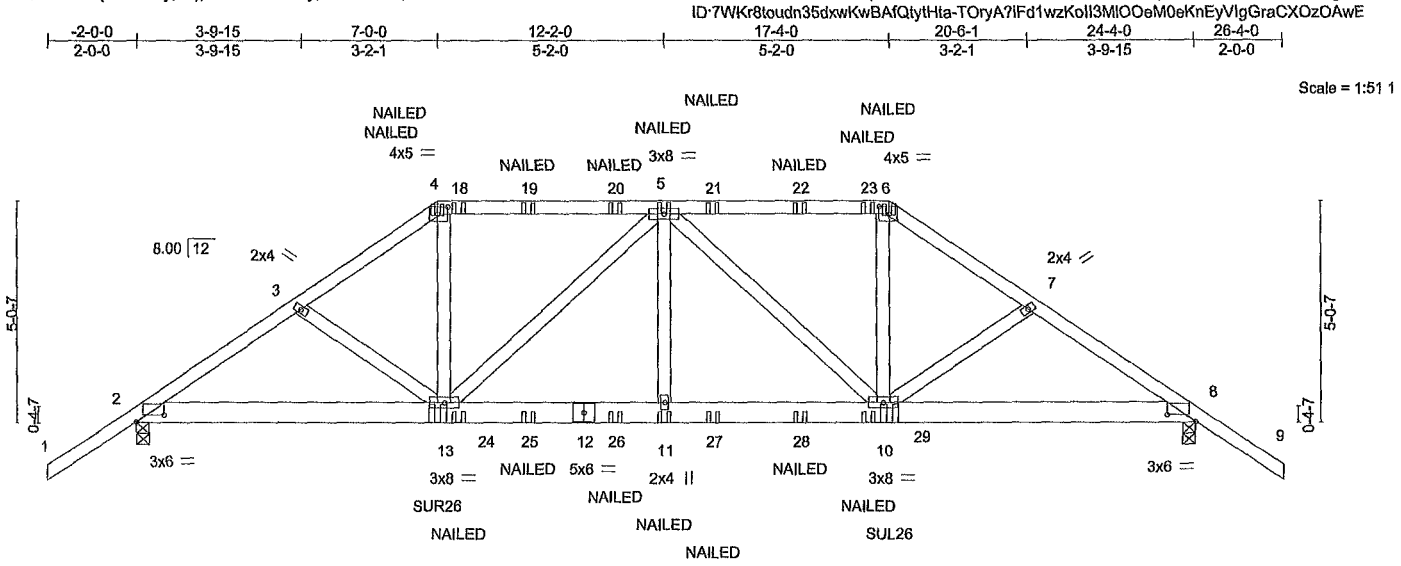


Plate Offsets (X,Y)-- [2:0-7-11,0-1-13], [4·0-2-12,0-2-0], [6·0-2-12,0-2-0], [8 0-7-11,0-1-13]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20 0 | Plate Grip DOL | 1 25 | TC | 0.49 | Vert(LL) | 0 13 | 11-13 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1 25 | BC | 0 72 | Vert(CT) | -0.22 | 10-11 | >999 | 180 | | |
| BCLL | 0 0 * | Rep Stress Incr | NO | WB | 0 74 | Horz(CT) | 0.07 | 8 | n/a | n/a | | |
| BCDL | 10 0 | Code | FBC2023/TPI2014 | Matrix-MS | | | | | | | Weight· 155 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-5-11 oc bracing

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-149(LC 6)
Max Uplift 2=-819(LC 8), 8=-819(LC 9)
Max Grav 2=2039(LC 1), 8=2039(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten - All forces 250 (lb) or less except when shown
TOP CHORD 2-3=-3189/1320, 3-4=-3027/1289, 4-5=-2511/1124, 5-6=-2511/1123, 6-7=-3027/1288, 7-8=-3189/1319
BOT CHORD 2-13=-1089/2662, 11-13=-1278/3109, 10-11=-1278/3109, 8-10=-988/2609
WEBS 4-13=-488/1316, 5-13=-857/429, 5-11=-243/699, 5-10=-857/428, 6-10=-488/1316

**NOTES-**
1) Unbalanced roof live loads have been considered for this design
2) Wind ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II, Exp B, Encl , GCpi=0.18, MWFRS (envelope) gable end zone, Lumber DOL=1 60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=819, 8=819
8) Use Simpson Strong-Tie SUR26 (6-10dx1 1/2 Girder, 6-10dx1 1/2 Truss, Single Ply Girder) or equivalent at 7-0-0 from the left end to connect truss(es) to back face of bottom chord, skewed 45 0 deg to the right, sloping 0 0 deg down
9) Use Simpson Strong-Tie SUL26 (6-16d Girder, 6-10dx1 1/2 Truss) or equivalent at 17-4-0 from the left end to connect truss(es) to back face of bottom chord, skewed 45 0 deg to the left, sloping 0 0 deg down
10) Fill all nail holes where hanger is in contact with lumber
11) "NAILED" indicates 3-10d (0 148"x3") or 2-12d (0 148"x3 25") toe-nails per NDS guidlines.
12) 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 (plf)
Vert: 1-4=-60, 4-6=-60, 6-9=-60, 2-8=-20

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April 23,2025

Continued on page 2



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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert. 4=-80(B) 6=-80(B) 13=-235(B) 11=-158(B) 5=-22(B) 10=-235(B) 18=-22(B) 19=-22(B) 20=-22(B) 21=-22(B) 22=-22(B) 23=-22(B) 24=-158(B) 25=-158(B) 26=-158(B) 27=-158(B) 28=-158(B) 29=-158(B)

| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE |
|---|---|---|---|---|---|
| 4609381 | T02 | Hip | 2 | 1 | T37091022 |
| | | | | | Job Reference (optional) |

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| -2-0-0 | 4-9-13 | 9-0-0 | 15-4-0 | 19-6-2 | 24-4-0 |
|---|---|---|---|---|---|
| 2-0-0 | 4-9-13 | 4-2-2 | 6-4-0 | 4-2-2 | 4-9-14 |

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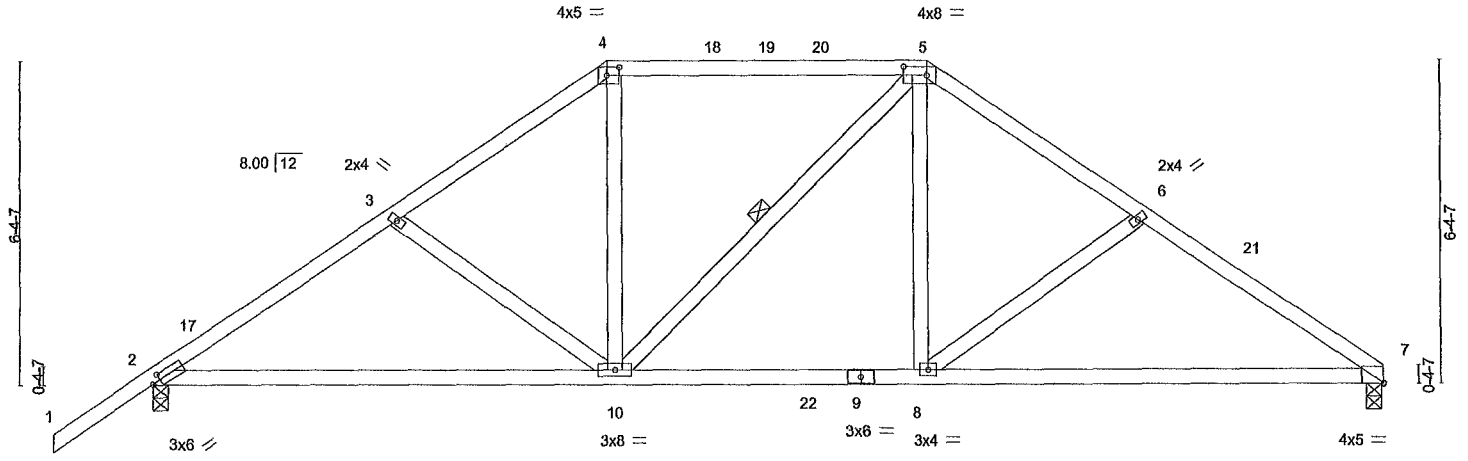


| 9-0-0 | 15-4-0 | 24-3-8 | 24-4-0 |
|---|---|---|---|
| 9-0-0 | 6-4-0 | 8-11-8 | 0-0-8 |

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

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1 25 | TC | 0 59 | Vert(LL) | -0 16 | 8-13 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0 74 | Vert(CT) | -0.34 | 8-13 | >862 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0 19 | Horz(CT) | 0.04 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code FBC2023/TPI2014 | | Matrix-MS | | | | | | | Weight: 127 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 4-1-3 oc purlins
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing
WEBS 1 Row at midpt 5-10

**REACTIONS.** (size) 7=0-3-8, 2=0-3-8
Max Horz 2=171(LC 9)
Max Uplift 7=-230(LC 13), 2=-284(LC 12)
Max Grav 7=1049(LC 2), 2=1152(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown
TOP CHORD 2-3=-1475/341, 3-4=-1283/297, 4-5=-1021/292, 5-6=-1302/307, 6-7=-1501/357
BOT CHORD 2-10=-309/1251, 8-10=-110/1035, 7-8=-228/1238
WEBS 3-10=-319/184, 4-10=-57/444, 5-8=-77/498, 6-8=-342/199

**NOTES-**
1) Unbalanced roof live loads have been considered for this design
2) Wind ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft; Cat. II, Exp B, Encl , GCpi=0 18; MWFRS (envelope) gable end zone 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 15-4-0, Zone2 15-4-0 to 19-7-11, Zone1 19-7-11 to 24-4-0 zone,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=230, 2=284

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

April 23,2025




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314.434.1200 / MiTek-US.com

| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE T37091023 |
|---|---|---|---|---|---|
| 4609381 | T03 | Hip | 2 | 1 | Job Reference (optional) |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:21 04 2025 Page 1
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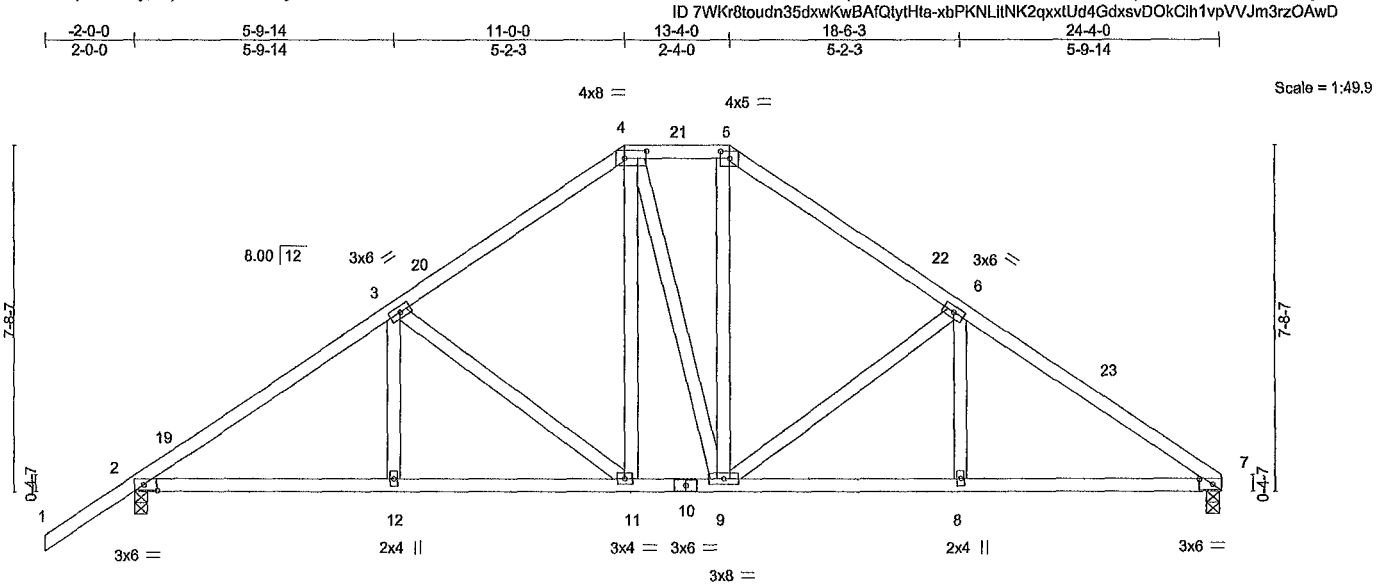


| 5-9-14 | 11-0-0 | 13-4-0 | 18-6-3 | 24-3-8 | 24-4-0 |
|---|---|---|---|---|---|
| 5-9-14 | 5-2-3 | 2-4-0 | 5-2-3 | 5-9-6 | 0-0-8 |

Plate Offsets (X,Y)-- [2:0-3-9,0-1-8], [4:0-5-12,0-2-0], [5.0-2-8,0-1-13], [7 0-3-9,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1 25 | TC | 0 36 | Vert(LL) | 0 05 | 8-15 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10 0 | Lumber DOL | 1.25 | BC | 0.45 | Vert(CT) | -0 09 | 11-12 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.40 | Horz(CT) | 0.04 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code FBC2023/TPI2014 | | Matrix-MS | | | | | | | Weight. 145 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP No 2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No 3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 4-6-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

**REACTIONS.** (size) 7=0-3-8, 2=0-3-8
Max Horz 2=204(LC 9)
Max Uplift 7=-224(LC 13), 2=-277(LC 12)
Max Grav 7=968(LC 1), 2=1098(LC 1)

**FORCES.** (lb) - Max Comp./Max. Ten - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1440/310, 3-4=-1047/281, 4-5=-795/279, 5-6=-1050/278, 6-7=-1462/328
BOT CHORD 2-12=-294/1129, 11-12=-294/1129, 9-11=-116/793, 8-9=-190/1153, 7-8=-190/1153
WEBS 3-11=-459/225, 4-11=-109/335, 5-9=-108/334, 6-9=-486/244

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II, Exp B, Encl , GCpi=0 18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 11-0-0 Zone3 11-0-0 to 13-4-0, Zone2 13-4-0 to 17-6-15, Zone1 17-6-15 to 24-4-0 zone,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=224, 2=277

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| Job | Truss | Truss Type | Qty | Ply | MIKE TODD - YOUNG GARAGE | T37091024 |
|---|---|---|---|---|---|---|
| 4609381 | T04 | Common | 5 | 1 | Job Reference (optional) | |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11.21 04 2025 Page 1
ID 7WKr8toudn35dxwKwBAfQtytHta-xbPKNLitNK2qxxtUd4GdxsvBGk8Dh0SpVVJm3rzOAwD

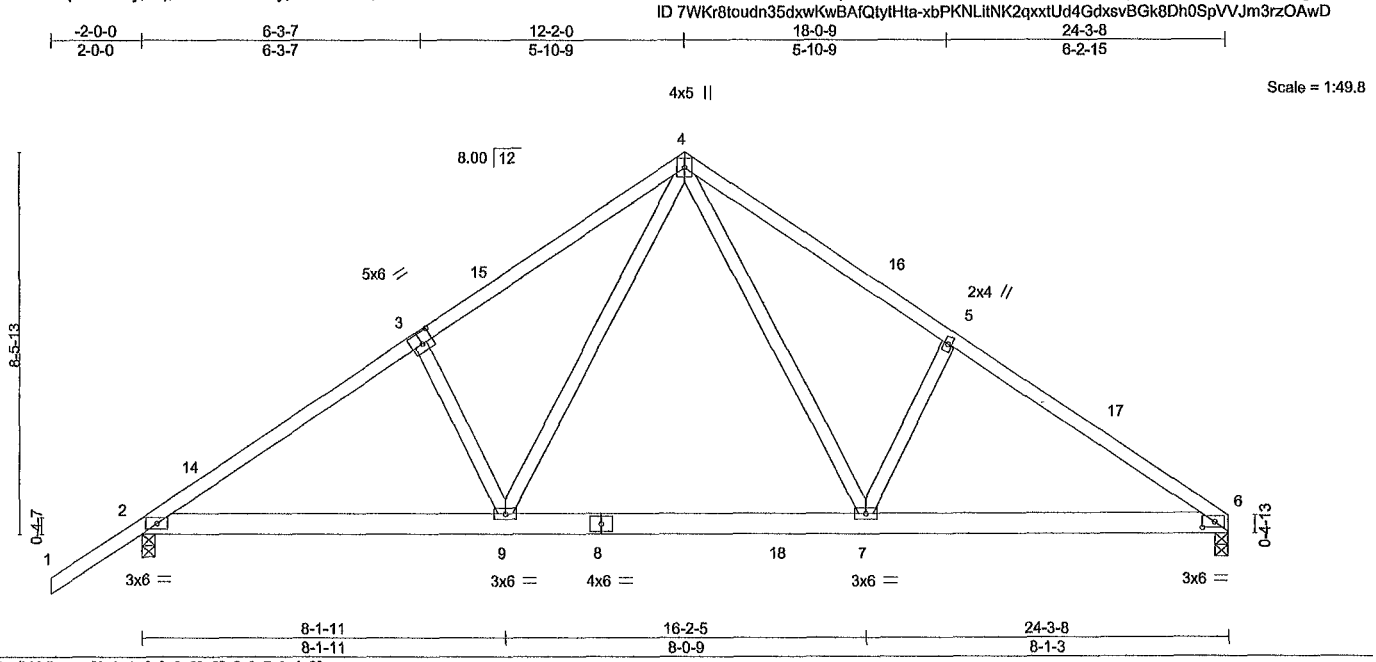


Plate Offsets (X,Y)-- [3:0-3-0,0-3-0], [6:0-3-5,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20 0 | Plate Grip DOL | 1 25 | TC | 0.49 | Vert(LL) | -0 12 | 7-9 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1 25 | BC | 0 67 | Vert(CT) | -0.24 | 7-9 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.49 | Horz(CT) | 0.04 | 6 | n/a | n/a | | |
| BCDL | 10 0 | Code FBC2023/TPI2014 | | Matrix-MS | | | | | | | Weight: 143 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

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

**REACTIONS.** (size) 6=0-3-8, 2=0-3-8
Max Horz 2=222(LC 9)
Max Uplift 6=-293(LC 13), 2=-347(LC 12)
Max Grav 6=1347(LC 20), 2=1467(LC 19)

**FORCES.** (lb) - Max Comp./Max. Ten. - All forces 250 (lb) or less except when shown
TOP CHORD 2-3=-2045/452, 3-4=-1945/519, 4-5=-1956/530, 5-6=-2057/463
BOT CHORD 2-9=-418/1774, 7-9=-176/1154, 6-7=-298/1639
WEBS 4-7=-318/1072, 5-7=-356/256, 4-9=-305/1059, 3-9=-353/254

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft; Cat. II, Exp B, Encl GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 12-2-0, Zone2 12-2-0 to 16-4-15, Zone1 16-4-15 to 24-3-8 zone;C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
5) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=293, 2=347
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1 25, Plate Increase=1 25
Uniform Loads (plf)
Vert: 1-4=-60, 4-6=-60, 2-9=-20, 7-9=-80(F=-60), 6-7=-20

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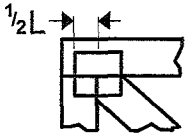
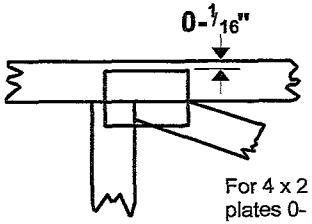
# Symbols

### PLATE LOCATION AND ORIENTATION




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




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

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

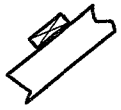
* Plate location details available in MiTek software or upon request.

### PLATE SIZE

4 x 4

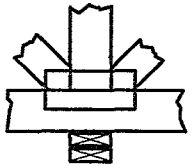
The first dimension is the plate width measured perpendicular to slots Second dimension is the length parallel to slots

### LATERAL BRACING LOCATION



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

### BEARING

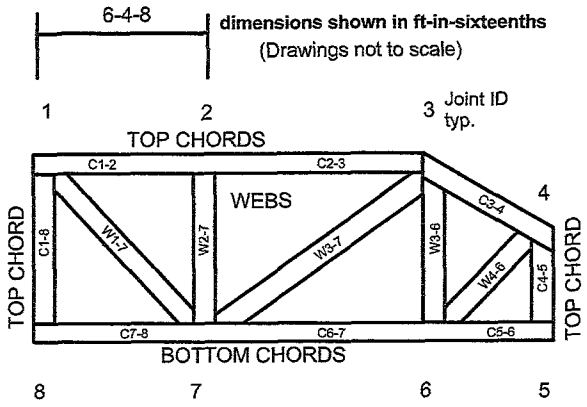


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

**Industry Standards:**

ANSI/TPI1. National Design Specification for Metal Plate Connected Wood Truss Construction
DSB-22 Design Standard for Bracing.
BCSI Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System




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

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

# Product Code Approvals

ICC-ES Reports

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

# Design General Notes

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

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



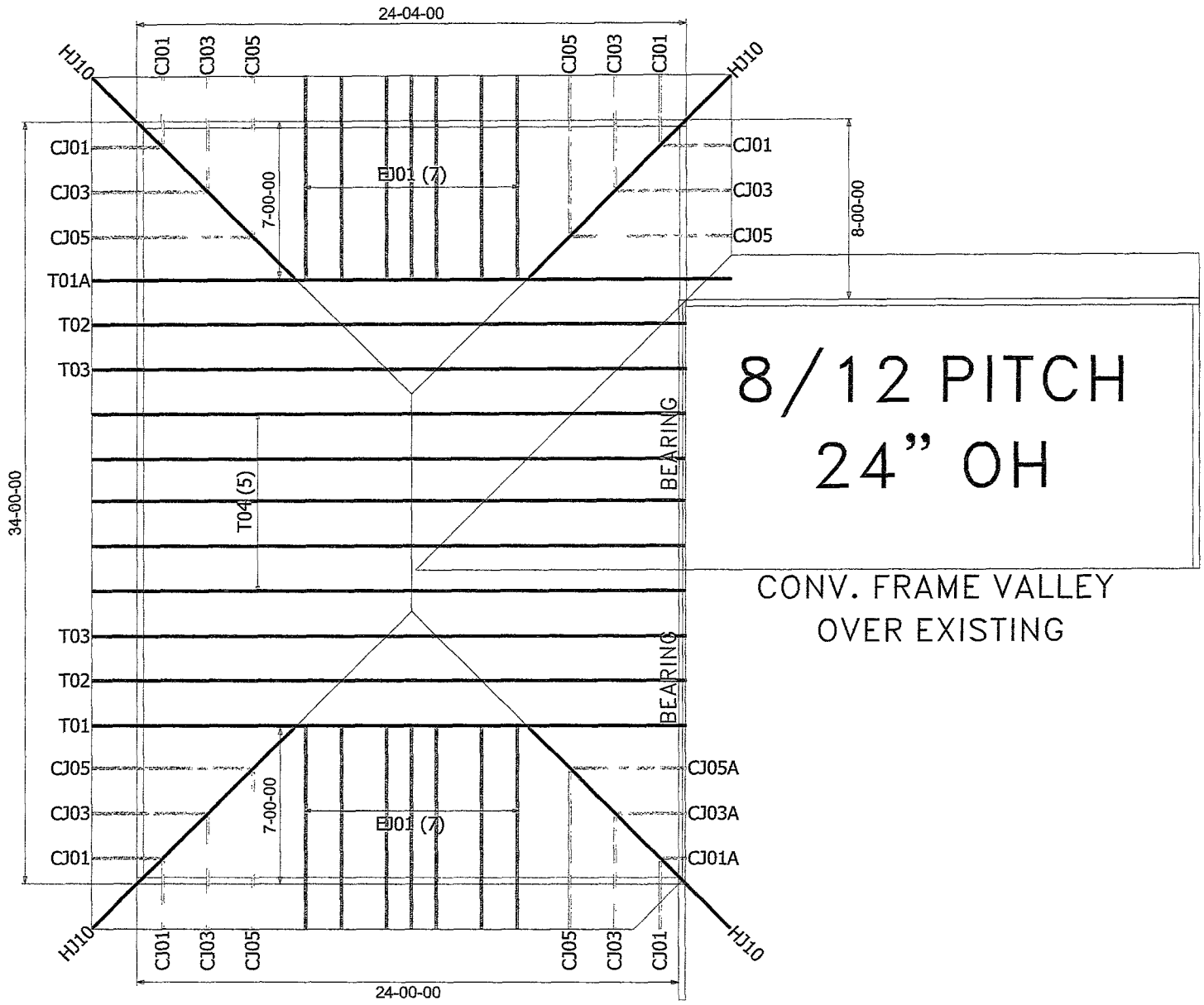
MiTek®

MiTek Engineering Reference Sheet: MII-7473 rev 1/2/2023

# 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/TPI 1
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber
10. Camber is a non-structural consideration and is the responsibility of truss fabricator General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified
13. Top chords must be sheathed or purlins provided at spacing indicated on design
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.




# 8/12 PITCH
# 24" OH

## CONV. FRAME VALLEY OVER EXISTING

**WARNING**
Backcharges Will Not Be Accepted Regardless of Fault Without Prior Notification By Customer Within 48 Hours And Investigation By Builders FirstSource. NO EXCEPTIONS.

**IMPORTANT**
This Drawing Must Be Approved And Returned Before Fabrication Will Begin. For Your Protection Check All Dimensions And Conditions Prior To Approval Of Plan. SIGNATURE BELOW INDICATES ALL NOTES AND DIMENSIONS HAVE BEEN ACCEPTED.

By _____ Date_____

FINAL LAYOUT FOR PRODUCTION

Initial:_____ Date:_____
Requested Delivery Date:

| ROOF LOADING: | FLOOR LOADING: |
|---|---|
| TCLL: 20 | TCLL: |
| TCDL: 10 | TCDL: |
| BCLL: 0 | BCLL: |
| BCDL: 10 | BCDL: |
| DURATION: 1.25 | DURATION: 1.00 |

5 PSF TCDL + 5 PSF BCDL USED TO RESIST UPLIFT

ENCLOSED
EXPOSURE CATEGORY: B
OCCUPANCY CATEGORY: II
WIND LOAD: 130 MPH
WIND IMPORTANCE FACTOR: 1.00

| | |
|---|---|
| ROOF PITCH: | 8/12 |
| CEILING PITCH: | FLAT |
| TOP CHORD SIZE: | 2 X 4 |
| BOTTOM CHORD SIZE: | 2 X 4 |
| OVERHANG LENGTH: | 24" |
| END CUT: | PLUMB |
| CANTILEVER: | N/A |
| TRUSS SPACING: | 24" |
| BUILDING CODE: | FBC 2023 |

BEARING HEIGHT SCHEDULE

| | |
|---|---|
| BUILDER: | Mike Todd Const. |
| MODEL: | CUSTOM |
| ELEV: | HIP |
| ADDRESS: | TBD |
| LOT / BLOCK: | N/A |
| SUBDIVISION: | YOUNG GARAGE |
| CITY: | Lake City |
| DRAWN BY: | Holloway, Kim |
| JOB # | 4609331 |
| DATE: 4/22/2025 | SCALE: N.T.S. |

REVISIONS:

Builders FirstSource