# Mark Morris, P.E.

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The truss drawing(s) listed below have been prepared by **Atlantic Building Components** under my direct supervision based on the parameters provided by the truss designers.

AST #: 28669
JOB: 21-5763-R01
JOB NAME: LOT 1108 ANDERSON CREEK
Wind Code: 37
Wind Speed: Vult= 135mph
Exposure Category: B
Mean Roof Height (feet): 23
These truss designs comply with IRC 2015 as well as IRC 2018.
*46 Truss Design(s)*

Trusses:
D01, D02, J02, J03, J04, J05, J06, J07, J08, J09, J10, J11, J12, PB01, PB02, PB03, R01, R02, R03, R04, R05, R06, R07, R08, R09, R12, R13, R14, R15, R16, R17, R18, R19, VT01, VT02, VT03, VT04, VT05, VT06, VT06A, VT07, VT08, VT09, VT12, VT13, VT14


**9/28/2021**
**Mark Morris**

***Warning !—Verify design parameters and read notes before use.***

This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling*,

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | D01 | Jack-Closed Structural Gable | 2 | 1 | Job Reference (optional) **# 28669** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:14:56 2021 Page 1
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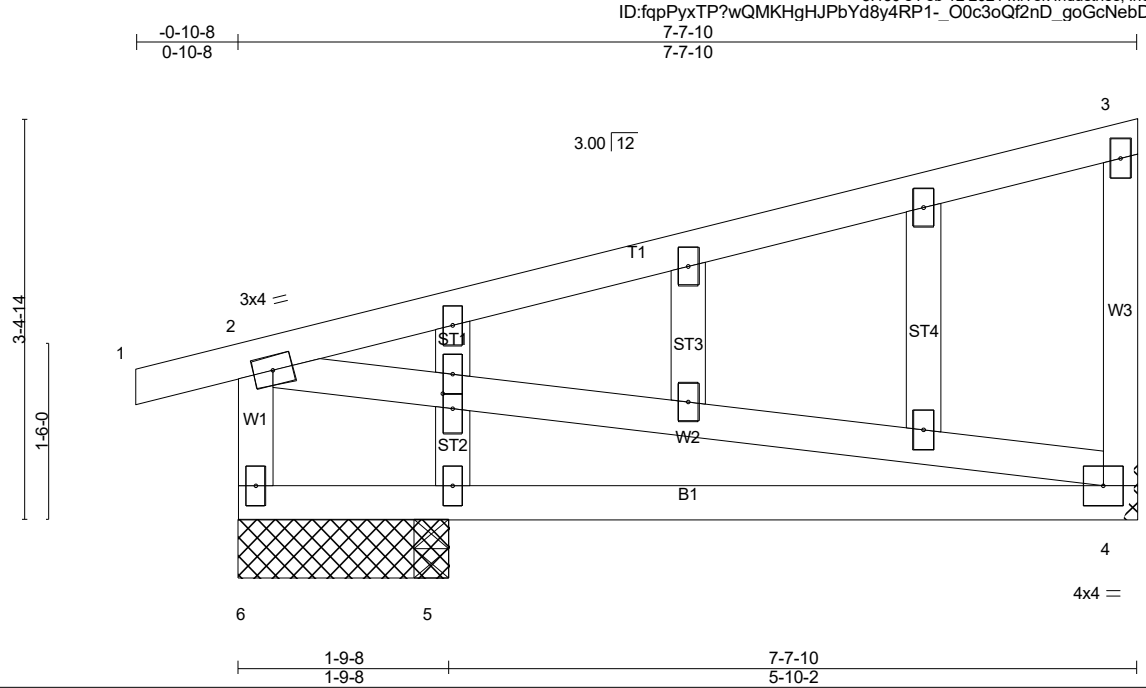


Plate Offsets (X,Y)-- [9:0-1-9,0-1-0]

| **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 | 0.71 | Vert(LL) | -0.03 | 4-5 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.28 | Vert(CT) | -0.07 | 4-5 | >992 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 47 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 0-3-8 except (jt=length) 4=Mechanical, 6=1-9-8.
(lb) - Max Horz 6=76(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) except 4=-101(LC 14), 6=-142(LC 10)
Max Grav All reactions 250 lb or less at joint(s) 5 except 4=349(LC 21), 6=347(LC 21), 5=254(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-303/179, 2-6=-372/198

**NOTES-** (13-16)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
10) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 4 and 142 lb uplift at joint 6.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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Continued on page 2

**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

13) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
15) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
16) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | D02 | Jack-Closed | 5 | 1 | Job Reference (optional) **# 28669** |

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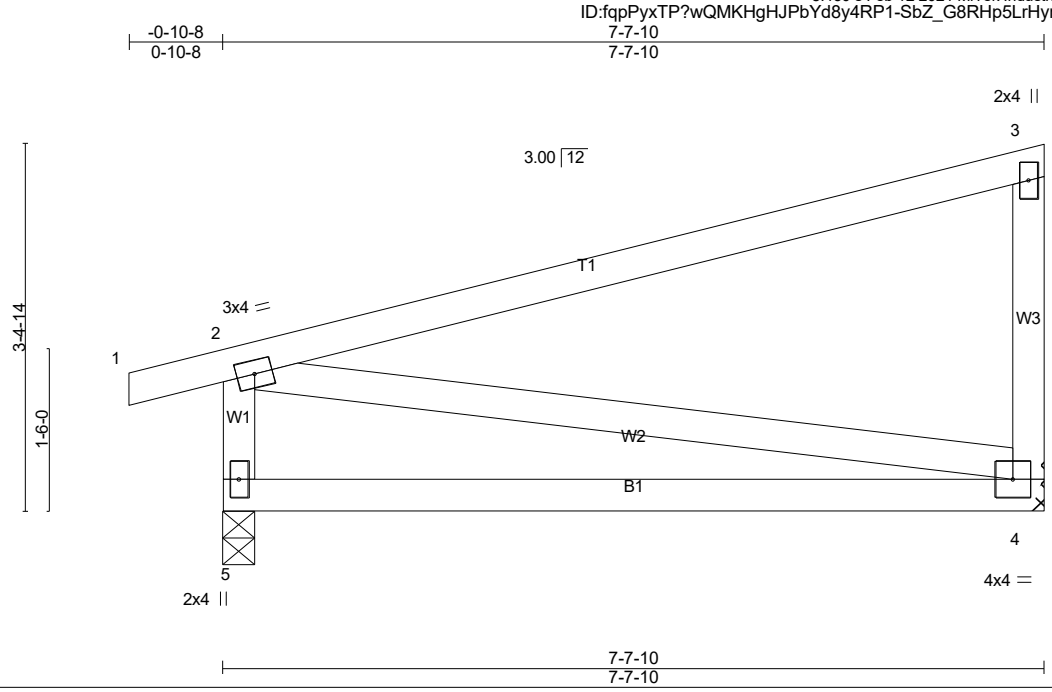



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.71 | Vert(LL) | -0.17 | 4-5 | >505 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.72 | Vert(CT) | -0.35 | 4-5 | >253 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 41 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

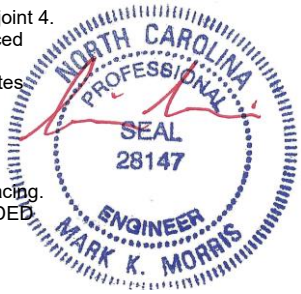
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 5=359/0-3-8 (min. 0-1-8), 4=289/Mechanical
Max Horz 5=76(LC 11)
Max Uplift5=-92(LC 10), 4=-87(LC 14)
Max Grav 5=446(LC 21), 4=376(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-372/198, 3-4=-303/179

**NOTES-** (10-13)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 92 lb uplift at joint 5 and 87 lb uplift at joint 4.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | J02 | Monopitch | 7 | 1 | Job Reference (optional) **# 28669** |

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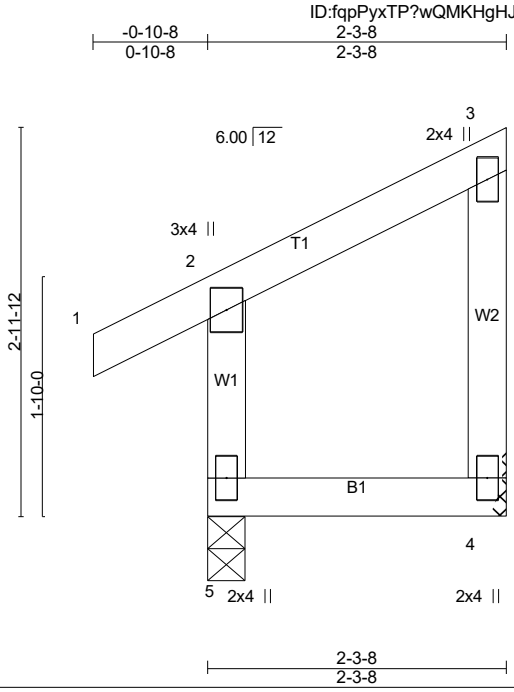



| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.27 | Vert(LL) | -0.00 | 5 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.12 | Vert(CT) | -0.00 | 4-5 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 14 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

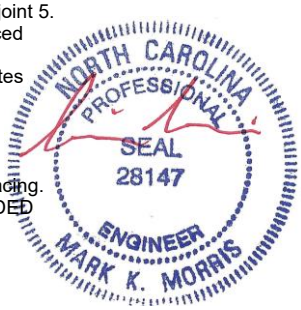
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-3-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=64/Mechanical, 5=157/0-3-8 (min. 0-1-8)
Max Horz 5=65(LC 11)
Max Uplift4=-56(LC 14), 5=-18(LC 10)
Max Grav 4=84(LC 21), 5=216(LC 21)

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

**NOTES-** (10-13)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 4 and 18 lb uplift at joint 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

*9/28/2021*

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | J03 | Monopitch | 5 | 1 | Job Reference (optional) **# 28669** |

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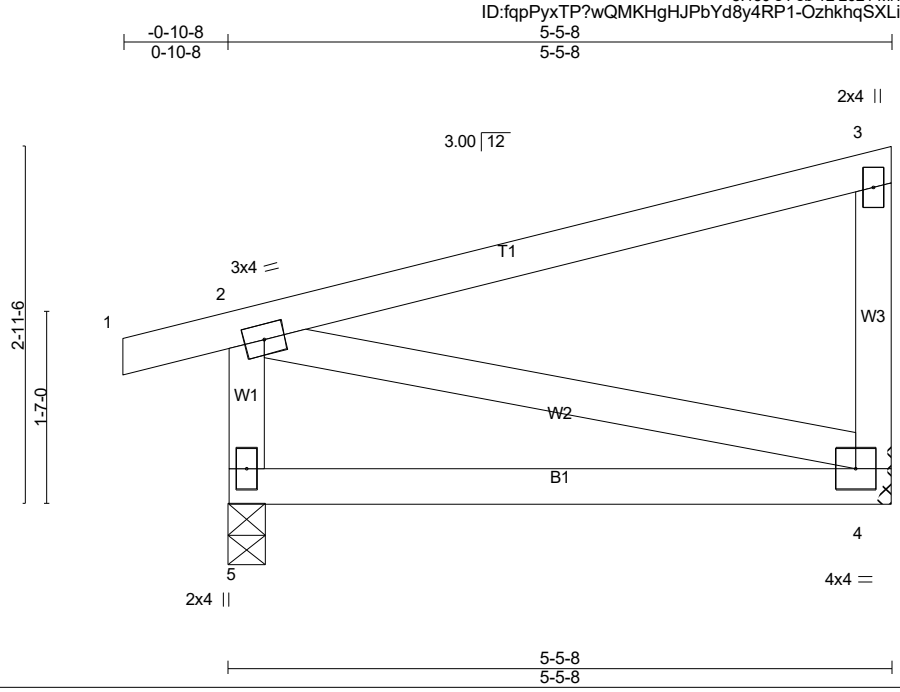



| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.67 | Vert(LL) | -0.04 | 4-5 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.33 | Vert(CT) | -0.09 | 4-5 | >725 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 30 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

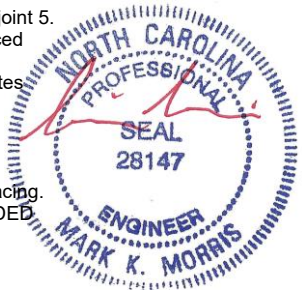
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=201/Mechanical, 5=274/0-3-8 (min. 0-1-8)
Max Horz 5=64(LC 11)
Max Uplift4=-65(LC 14), 5=-75(LC 10)
Max Grav 4=259(LC 21), 5=361(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-310/179

**NOTES-** (10-13)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 4 and 75 lb uplift at joint 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | J04 | Monopitch Supported Gable | 1 | 1 | Job Reference (optional) **# 28669** |

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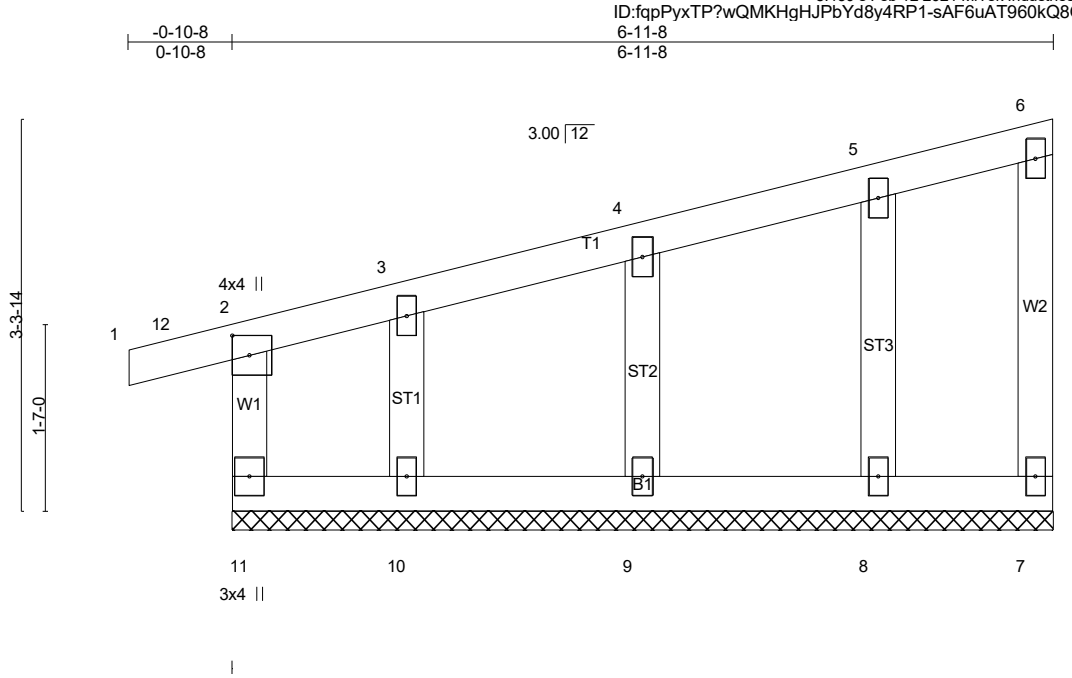


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

| **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 | 0.38 | Vert(LL) | -0.00 | 1 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.29 | Vert(CT) | -0.00 | 1 | n/r | 80 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | -0.00 | 7 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 37 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 6-11-8.
(lb) - Max Horz 11=73(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 7, 9, 8 except 10=-103(LC 14)
Max Grav All reactions 250 lb or less at joint(s) 11, 7, 9, 10, 8

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

**NOTES-** (14-17)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 9, 8 except (jt=lb) 10=103.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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Continued on page 2

**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
15) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
16) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
17) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | J05 | Monopitch | 5 | 1 | Job Reference (optional) **# 28669** |

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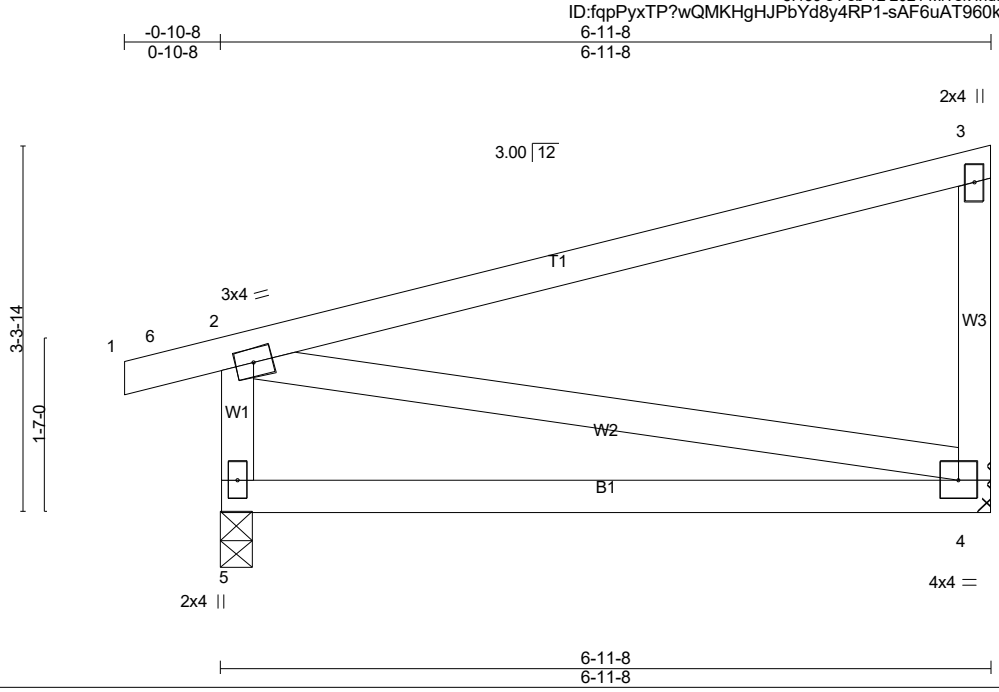



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.90 | Vert(LL) | -0.12 | 4-5 | >675 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.58 | Vert(CT) | -0.24 | 4-5 | >338 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 38 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

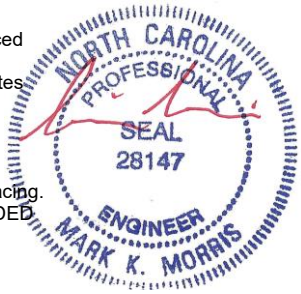
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=262/Mechanical, 5=333/0-3-8 (min. 0-1-8)
Max Horz 5=73(LC 11)
Max Uplift4=-81(LC 14), 5=-87(LC 10)
Max Grav 4=340(LC 21), 5=426(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-273/200, 2-5=-359/220

**NOTES-** (10-13)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

*9/28/2021*

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | J06 | HALF HIP | 2 | 2 | Job Reference (optional) **# 28669** |

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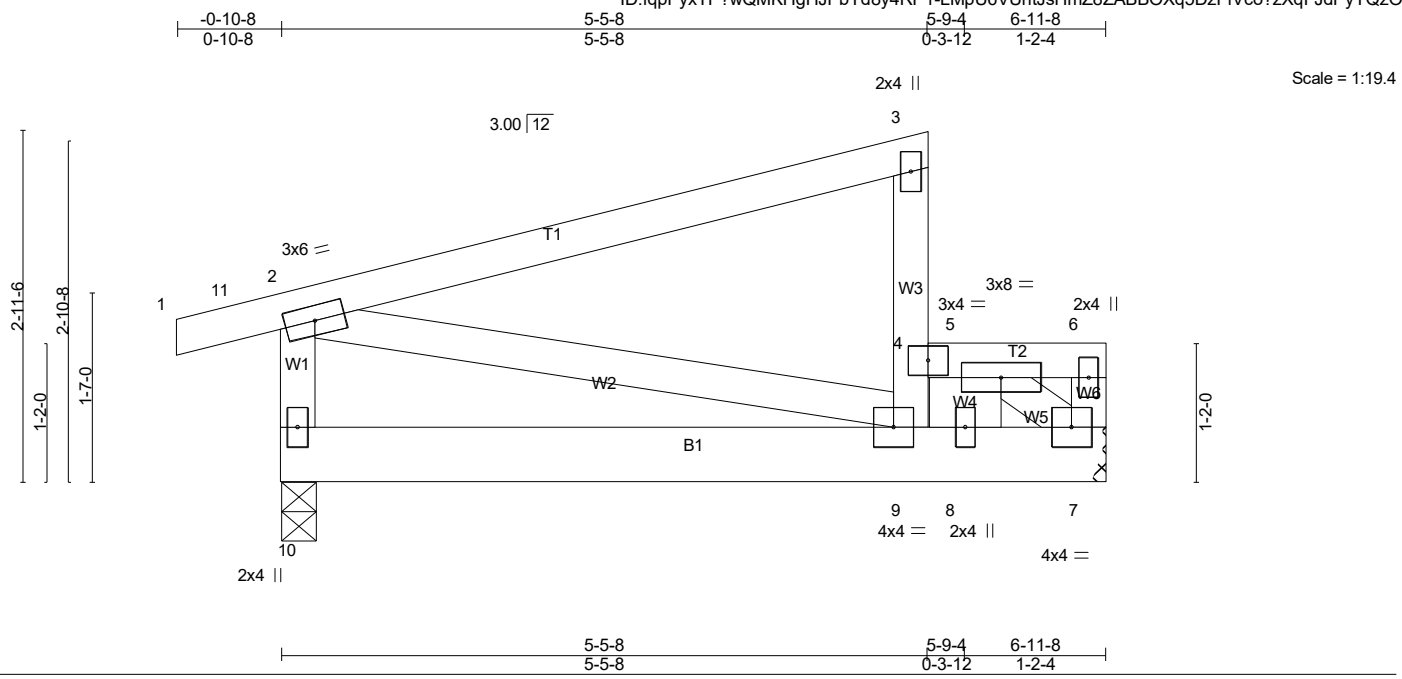



| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 40.0 | Plate Grip DOL | 1.00 | TC | 0.83 | Vert(LL) | -0.01 | 9-10 | >999 | 480 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.00 | BC | 0.22 | Vert(CT) | -0.03 | 9-10 | >999 | 360 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.08 | Horz(CT) | 0.00 | 7 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | Wind(LL) | 0.00 | 9-10 | >999 | 240 | Weight: 86 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

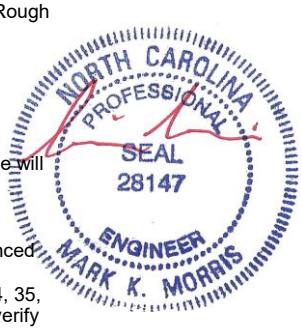
**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
W4: 2x8 SP No.2

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

**REACTIONS.** (lb/size) 7=825/Mechanical, 10=407/0-3-8 (min. 0-1-8)
Max Horz 10=119(LC 14)
Max Uplift10=-20(LC 10)
Max Grav 7=955(LC 2), 10=585(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-350/0, 4-5=-681/0, 6-7=-257/0, 2-10=-463/115
BOT CHORD 9-10=-251/216, 8-9=0/681, 7-8=0/681
WEBS 5-8=-326/0, 5-7=-743/0

**NOTES-** (15-18)
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 6-9-12 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=40.0 psf (roof LL: Lum DOL=1.00 Plate DOL=1.00); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
11) Refer to girder(s) for truss to truss connections.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

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18) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 4-5=-60, 5-6=-365, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320
2) Dead + Roof Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 1-2=-100, 2-3=-100, 4-5=-100, 5-6=-405, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320
3) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 1-2=-80, 2-3=-80, 4-5=-80, 5-6=-385, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320
4) Dead + 0.75 Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-50, 2-3=-50, 4-5=-50, 5-6=-355, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320
5) Dead + 0.75 Snow (Unbal. Left): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-11=-50, 2-11=-57, 2-3=-57, 4-5=-29, 5-6=-334, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320
6) Dead + 0.75 Snow (Unbal. Right): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-29, 2-3=-29, 4-5=-63, 5-6=-368, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320
7) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-20, 2-3=-20, 4-5=-20, 5-6=-325, 7-10=-40
Concentrated Loads (lb)
Vert: 5=-320
8) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=60, 2-3=48, 4-5=48, 5-6=-257, 7-10=-10
Horz: 1-2=-70, 2-3=-58, 3-4=-51, 2-10=-38
Concentrated Loads (lb)
Vert: 5=-320
9) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-1, 2-3=-45, 4-5=-45, 5-6=-350, 7-10=-20
Horz: 1-2=-19, 2-3=25, 3-4=30, 2-10=35
Concentrated Loads (lb)
Vert: 5=-320
10) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=41, 2-3=29, 4-5=12, 5-6=-293, 7-10=-10
Horz: 1-2=-51, 2-3=-39, 3-4=10, 2-10=16
Concentrated Loads (lb)
Vert: 5=-320
11) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=9, 2-3=15, 4-5=29, 5-6=-276, 7-10=-10
Horz: 1-2=-19, 2-3=-25, 3-4=-26, 2-10=-20
Concentrated Loads (lb)
Vert: 5=-320
12) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=13, 2-3=8, 4-5=-9, 5-6=-314, 7-10=-20
Horz: 1-2=-33, 2-3=-28, 3-4=32, 2-10=27
Concentrated Loads (lb)
Vert: 5=-320
13) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-1, 2-3=-6, 4-5=8, 5-6=-297, 7-10=-20
Horz: 1-2=-19, 2-3=-14, 3-4=-4, 2-10=-9


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**LOAD CASE(S)** Standard
Concentrated Loads (lb)
Vert: 5=-320
14) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=23, 2-3=29, 4-5=12, 5-6=-293, 7-10=-10
Horz: 1-2=-33, 2-3=-39, 3-4=-44, 2-10=13
Concentrated Loads (lb)
Vert: 5=-320
15) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 2-3=12, 4-5=29, 5-6=-276, 7-10=-10
Horz: 1-2=-16, 2-3=-22, 3-4=-28, 2-10=-19
Concentrated Loads (lb)
Vert: 5=-320
16) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=23, 2-3=29, 4-5=12, 5-6=-293, 7-10=-10
Horz: 1-2=-33, 2-3=-39, 3-4=-44, 2-10=13
Concentrated Loads (lb)
Vert: 5=-320
17) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 2-3=12, 4-5=29, 5-6=-276, 7-10=-10
Horz: 1-2=-16, 2-3=-22, 3-4=-28, 2-10=-19
Concentrated Loads (lb)
Vert: 5=-320
18) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=13, 2-3=8, 4-5=-9, 5-6=-314, 7-10=-20
Horz: 1-2=-33, 2-3=-28, 3-4=-22, 2-10=24
Concentrated Loads (lb)
Vert: 5=-320
19) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-4, 2-3=-9, 4-5=8, 5-6=-297, 7-10=-20
Horz: 1-2=-16, 2-3=-11, 3-4=-5, 2-10=-8
Concentrated Loads (lb)
Vert: 5=-320
20) Dead + Snow on Overhangs: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-100, 2-3=-20, 4-5=-20, 5-6=-325, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320
21) Dead + Snow (Unbal. Left): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-11=-60, 2-11=-69, 2-3=-69, 4-5=-32, 5-6=-337, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320
22) Dead + Snow (Unbal. Right): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-32, 2-3=-32, 4-5=-77, 5-6=-382, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320
23) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-2=-20, 2-3=-20, 4-5=-20, 5-6=-325, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320
24) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-25, 2-3=-29, 4-5=-42, 5-6=-347, 7-10=-20
Horz: 1-2=-25, 2-3=-21, 3-4=24, 2-10=20
Concentrated Loads (lb)
Vert: 5=-320
25) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-35, 2-3=-40, 4-5=-29, 5-6=-334, 7-10=-20
Horz: 1-2=-15, 2-3=-10, 3-4=-3, 2-10=-7
Concentrated Loads (lb)
Vert: 5=-320
26) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-25, 2-3=-29, 4-5=-42, 5-6=-347, 7-10=-20
Horz: 1-2=-25, 2-3=-21, 3-4=-16, 2-10=18
Concentrated Loads (lb)
Vert: 5=-320
27) Dead + 0.75 Snow (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60

Continued on page 4


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**LOAD CASE(S)** Standard
Uniform Loads (plf)
Vert: 1-2=-38, 2-3=-42, 4-5=-29, 5-6=-334, 7-10=-20
Horz: 1-2=-12, 2-3=-8, 3-4=-4, 2-10=-6
Concentrated Loads (lb)
Vert: 5=-320

28) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-55, 2-3=-59, 4-5=-72, 5-6=-377, 7-10=-20
Horz: 1-2=-25, 2-3=-21, 3-4=24, 2-10=20
Concentrated Loads (lb)
Vert: 5=-320

29) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-65, 2-3=-70, 4-5=-59, 5-6=-364, 7-10=-20
Horz: 1-2=-15, 2-3=-10, 3-4=-3, 2-10=-7
Concentrated Loads (lb)
Vert: 5=-320

30) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-55, 2-3=-59, 4-5=-72, 5-6=-377, 7-10=-20
Horz: 1-2=-25, 2-3=-21, 3-4=-16, 2-10=18
Concentrated Loads (lb)
Vert: 5=-320

31) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-68, 2-3=-72, 4-5=-59, 5-6=-364, 7-10=-20
Horz: 1-2=-12, 2-3=-8, 3-4=-4, 2-10=-6
Concentrated Loads (lb)
Vert: 5=-320

32) Dead + Minimum Snow: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 4-5=-60, 5-6=-365, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320

33) Dead + 0.6 C-C Wind Min. Down: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 2-3=-26, 4-5=-26, 5-6=-331, 7-10=-10
Horz: 1-2=-16, 2-3=16, 3-4=16, 2-10=16
Concentrated Loads (lb)
Vert: 5=-320

34) Dead + 0.6 C-C Wind Min. Upward: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 2-3=6, 4-5=6, 5-6=-299, 7-10=-10
Horz: 1-2=-16, 2-3=-16, 3-4=-16, 2-10=-16
Concentrated Loads (lb)
Vert: 5=-320

35) 3rd Unbal.Dead + Snow (balanced) + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-32, 2-3=-32, 4-5=-89, 5-6=-394, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320

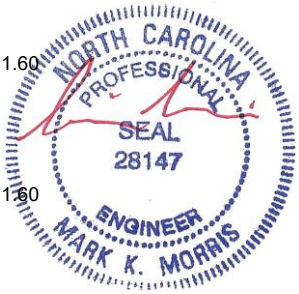
36) 4th Unbal.Dead + Snow (balanced) + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-89, 2-3=-89, 4-5=-32, 5-6=-337, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320

37) 5th Unbal.Dead + 0.75 Snow (balanced) + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-29, 2-3=-29, 4-5=-72, 5-6=-377, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320

38) 6th Unbal.Dead + 0.75 Snow (balanced) + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-72, 2-3=-72, 4-5=-29, 5-6=-334, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320

39) 7th Unbal.Dead + 0.75 Snow (unbal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-4, 2-3=-8, 4-5=-64, 5-6=-369, 7-10=-20
Horz: 1-2=-25, 2-3=-21, 3-4=24, 2-10=20
Concentrated Loads (lb)
Vert: 5=-320

40) 8th Unbal.Dead + 0.75 Snow (unbal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-47, 2-3=-51, 4-5=-21, 5-6=-326, 7-10=-20
Horz: 1-2=-25, 2-3=-21, 3-4=24, 2-10=20
Concentrated Loads (lb)
Vert: 5=-320

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Continued on page 5



**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**LOAD CASE(S)** Standard

41) 9th Unbal.Dead + 0.75 Snow (unbal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-14, 2-3=-19, 4-5=-51, 5-6=-356, 7-10=-20
Horz: 1-2=-15, 2-3=-10, 3-4=-3, 2-10=-7
Concentrated Loads (lb)
Vert: 5=-320

42) 10th Unbal.Dead + 0.75 Snow (unbal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-57, 2-3=-62, 4-5=-8, 5-6=-313, 7-10=-20
Horz: 1-2=-15, 2-3=-10, 3-4=-3, 2-10=-7
Concentrated Loads (lb)
Vert: 5=-320

43) 11th Unbal.Dead + 0.75 Snow (unbal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-4, 2-3=-8, 4-5=-64, 5-6=-369, 7-10=-20
Horz: 1-2=-25, 2-3=-21, 3-4=-16, 2-10=18
Concentrated Loads (lb)
Vert: 5=-320

44) 12th Unbal.Dead + 0.75 Snow (unbal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-47, 2-3=-51, 4-5=-21, 5-6=-326, 7-10=-20
Horz: 1-2=-25, 2-3=-21, 3-4=-16, 2-10=18
Concentrated Loads (lb)
Vert: 5=-320

45) 13th Unbal.Dead + 0.75 Snow (unbal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-17, 2-3=-21, 4-5=-51, 5-6=-356, 7-10=-20
Horz: 1-2=-12, 2-3=-8, 3-4=-4, 2-10=-6
Concentrated Loads (lb)
Vert: 5=-320

46) 14th Unbal.Dead + 0.75 Snow (unbal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-64, 4-5=-8, 5-6=-313, 7-10=-20
Horz: 1-2=-12, 2-3=-8, 3-4=-4, 2-10=-6
Concentrated Loads (lb)
Vert: 5=-320

47) 15th Unbal.Dead + Minimum Snow + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-32, 2-3=-32, 4-5=-89, 5-6=-394, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320

48) 16th Unbal.Dead + Minimum Snow + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-89, 2-3=-89, 4-5=-32, 5-6=-337, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320

49) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 1-2=-100, 2-3=-100, 4-5=-20, 5-6=-325, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320

50) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 1-2=-20, 2-3=-20, 4-5=-100, 5-6=-405, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320

51) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 1-2=-80, 2-3=-80, 4-5=-20, 5-6=-325, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320

52) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 1-2=-20, 2-3=-20, 4-5=-80, 5-6=-385, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-320


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| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | J07 | MONOPITCH SUPPORTED | 1 | 1 | Job Reference (optional) **# 28669** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:03 2021 Page 1
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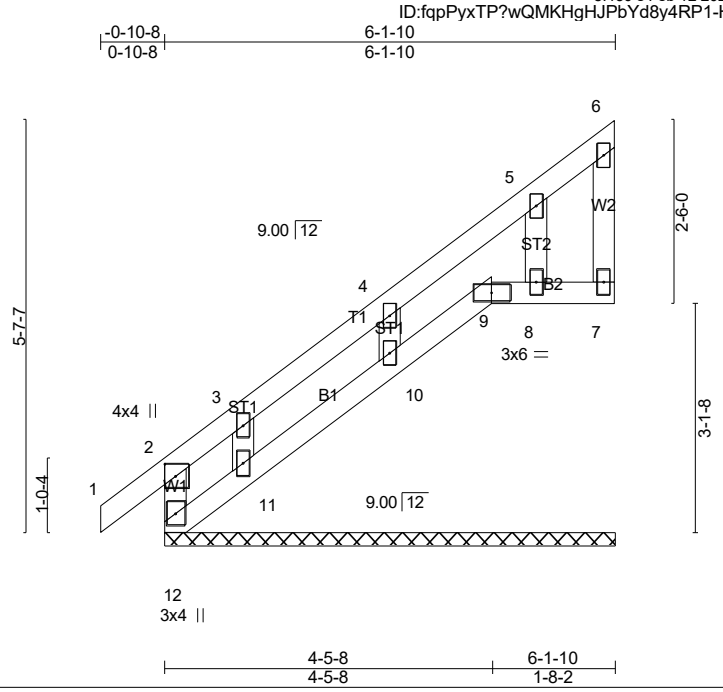



Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

| **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 | 0.55 | Vert(LL) | -0.00 | 1 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.38 | Vert(CT) | -0.00 | 2 | n/r | 80 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.11 | Horz(CT) | -0.00 | 7 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 32 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

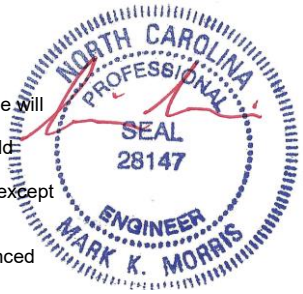
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 6-1-10.
(lb) - Max Horz 12=183(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 12, 7, 9, 10, 8 except 11=-236(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 7, 9, 10, 11, 8 except 12=253(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-12=-278/169, 2-3=-465/208
WEBS 3-11=-204/361

**NOTES-** (15-18)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
11) Bearing at joint(s) 12, 9, 10, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 7, 9, 10, 8 except (jt=lb) 11=236.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 9, 10, 11, 8.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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15) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
16) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
17) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
18) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | J08 | JACK-PARTIAL | 5 | 1 | # 28669 |

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:04 2021 Page 1
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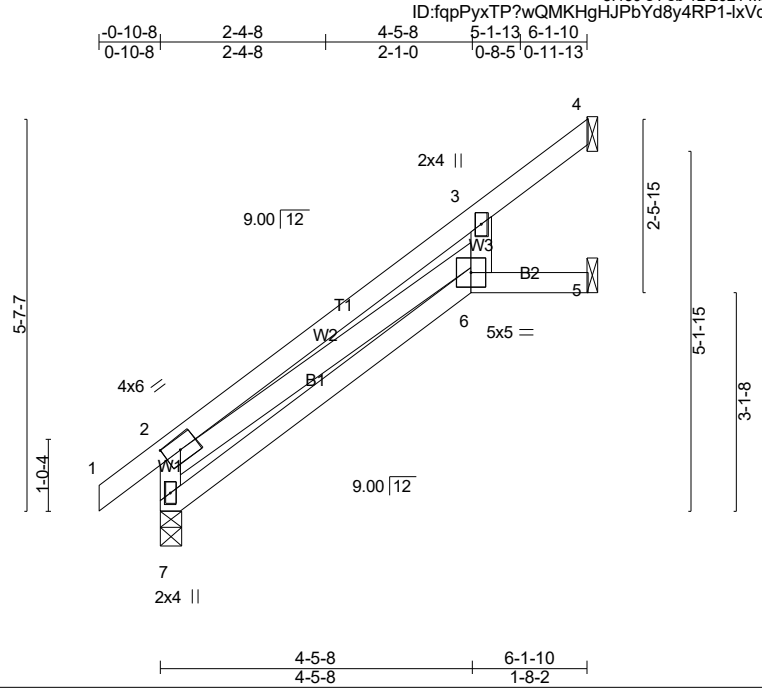



Plate Offsets (X,Y)-- [2:0-2-14,0-2-0]

| 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 | 0.77 | Vert(LL) | 0.21 | 6 | >346 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.23 | Vert(CT) | -0.22 | 6 | >327 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.10 | Horz(CT) | 0.16 | 5 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 34 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

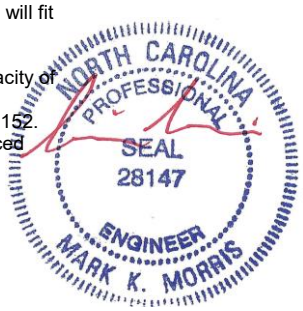
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-3-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 7=304/0-3-8 (min. 0-1-8), 4=216/Mechanical, 5=16/Mechanical
Max Horz 7=185(LC 12)
Max Uplift4=-152(LC 12)
Max Grav 7=304(LC 1), 4=243(LC 20), 5=32(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-276/293
BOT CHORD 6-7=-401/158
WEBS 2-6=-111/351

**NOTES-** (10-13)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=152.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | J09 | Jack-Open Supported Gable | 1 | 1 | Job Reference (optional) **# 28669** |

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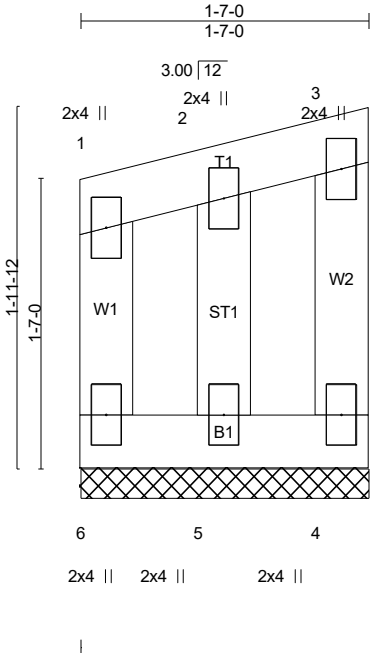


Scale = 1:12.7

| 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 | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.05 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.02 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 10 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.2 |
| WEBS | 2x4 SP No.3 |
| OTHERS | 2x4 SP No.3 |

**BRACING-**

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 6=24/1-7-0 (min. 0-1-8), 4=24/1-7-0 (min. 0-1-8), 5=55/1-7-0 (min. 0-1-8)
Max Horz 6=35(LC 11)
Max Uplift 6=-8(LC 12), 4=-19(LC 11), 5=-15(LC 11)
Max Grav 6=29(LC 28), 4=28(LC 20), 5=63(LC 20)

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

**NOTES-** (12-15)

1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4, 5.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.


9/28/2021

**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | J10 | Jack-Open Supported Gable | 1 | 1 | Job Reference (optional) **# 28669** |

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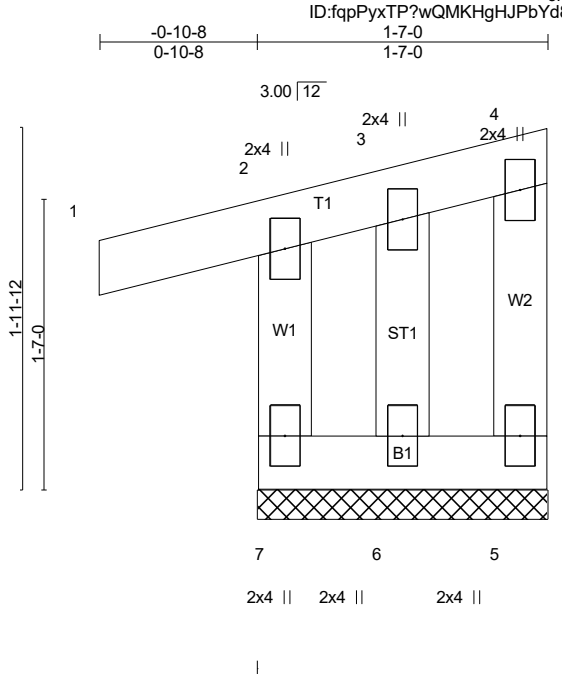


Scale = 1:12.7

| 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 | 0.18 | Vert(LL) | -0.00 | 1 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.06 | Vert(CT) | -0.00 | 1 | n/r | 80 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.02 | Horz(CT) | -0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 12 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.2 |
| WEBS | 2x4 SP No.3 |
| OTHERS | 2x4 SP No.3 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 1-7-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing. |

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 7=126/1-7-0 (min. 0-1-8), 5=16/1-7-0 (min. 0-1-8), 6=23/1-7-0 (min. 0-1-8)
Max Horz 7=40(LC 11)
Max Uplift7=-57(LC 10), 5=-20(LC 11), 6=-25(LC 20)
Max Grav 7=181(LC 20), 5=19(LC 21), 6=34(LC 7)

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

**NOTES-** (13-16)

1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5, 6.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
15) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
16) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.


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Continued on page 2

**Warning - Design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | J11 | Half Hip Girder | 2 | 1 | Job Reference (optional) **# 28669** |

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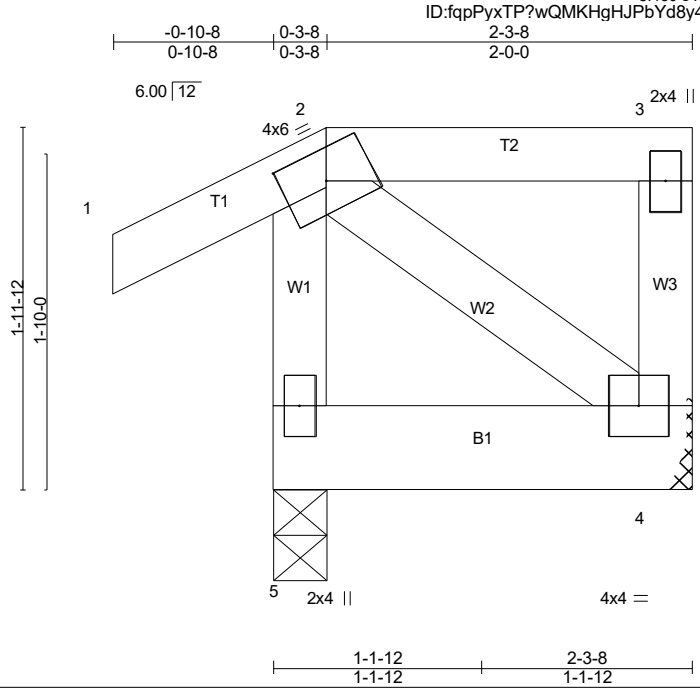


Scale = 1:12.6

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

| **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 | 0.18 | Vert(LL) | -0.00 | 5 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.02 | Vert(CT) | -0.00 | 5 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.01 | Horz(CT) | -0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 17 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**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 2-3-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=64/Mechanical, 5=167/0-3-8 (min. 0-1-8)
Max Horz 5=54(LC 9)
Max Uplift4=-39(LC 9), 5=-64(LC 8)
Max Grav 4=113(LC 33), 5=202(LC 34)

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

**NOTES-** (12-15)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; porch left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 10 lb down and 24 lb up at 0-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

NORTH CAROLINA PROFESSIONAL SEAL 28147 ENGINEER MARK K. MORRIS

9/28/2021

**LOAD CASE(S)** Standard

Continued on page 2

**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**LOAD CASE(S)** Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 4-5=-20
Concentrated Loads (lb)
Vert: 5=-10


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | J12 | Half Hip | 2 | 1 | Job Reference (optional) **# 28669** |

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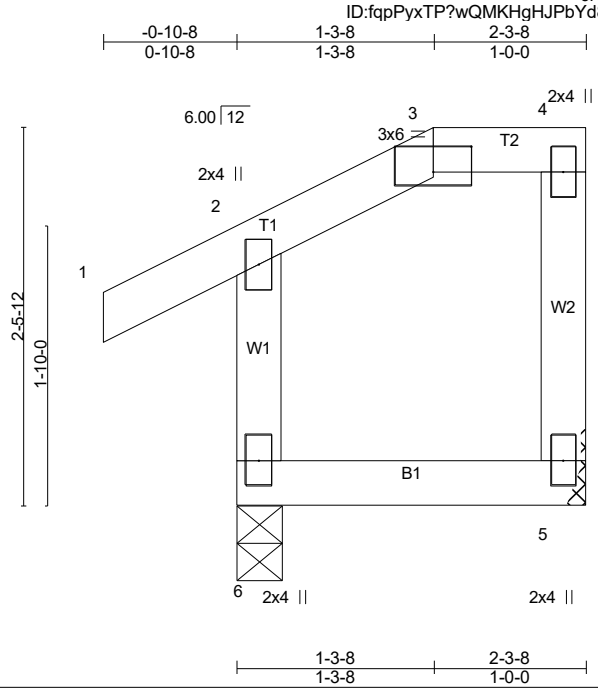



Plate Offsets (X,Y)-- [3:0-3-0,0-2-0]

| **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 | 0.20 | Vert(LL) | -0.00 | 6 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.08 | Vert(CT) | -0.00 | 5-6 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 14 lb | FT = 20% |

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

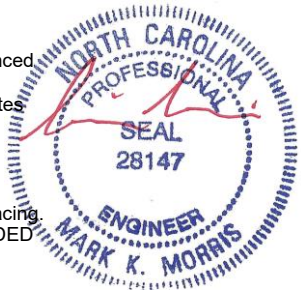
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-3-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 5=64/Mechanical, 6=157/0-3-8 (min. 0-1-8)
Max Horz 6=56(LC 11)
Max Uplift 5=-44(LC 11), 6=-28(LC 10)
Max Grav 5=90(LC 35), 6=239(LC 36)

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

**NOTES-** (11-14)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




9/28/2021

**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | PB01 | GABLE | 1 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

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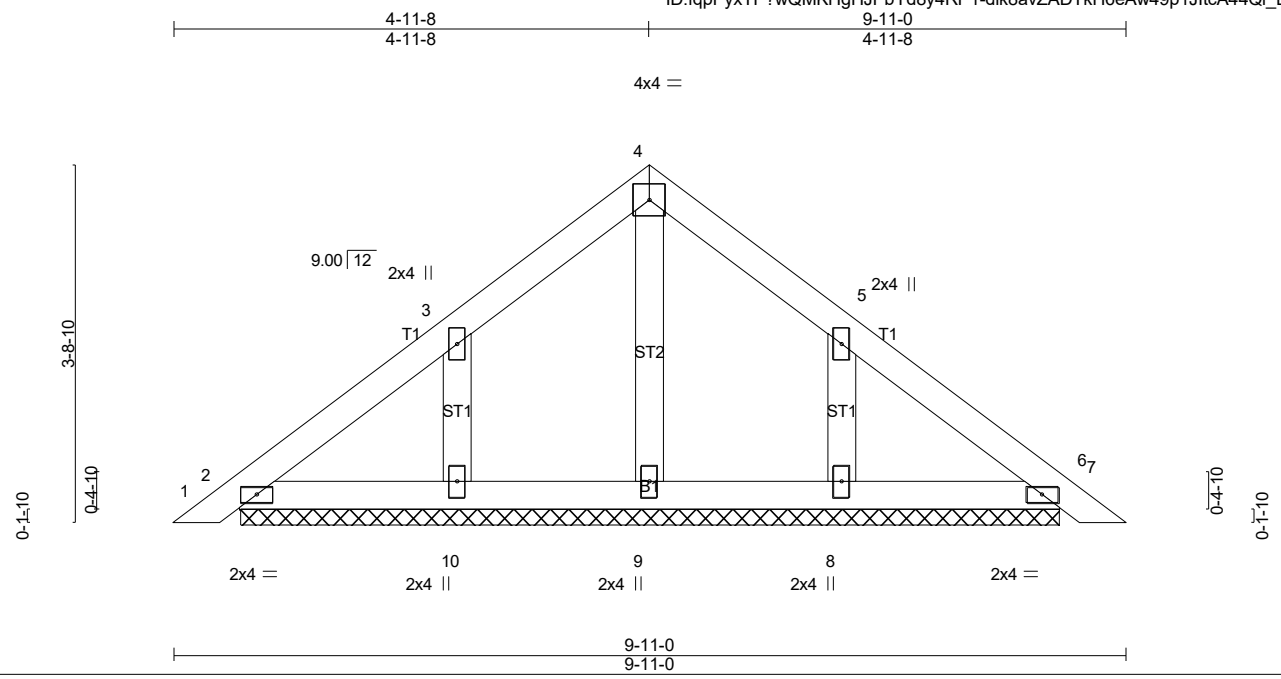



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.07 | Vert(LL) | 0.00 | 6 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.07 | Vert(CT) | 0.00 | 7 | n/r | 80 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 6 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 40 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

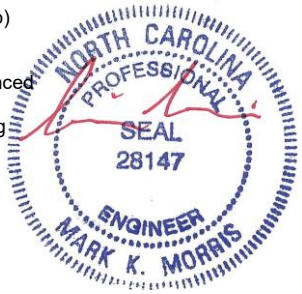
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 8-6-5.
(lb) - Max Horz 2=-87(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-108(LC 12), 8=-108(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

**NOTES-** (13-16)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6 except (jt=lb) 10=108, 8=108.
10) Non Standard bearing condition. Review required.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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Continued on page 2

**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

13) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
15) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
16) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | PB02 | Piggyback | 4 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:08 2021 Page 1
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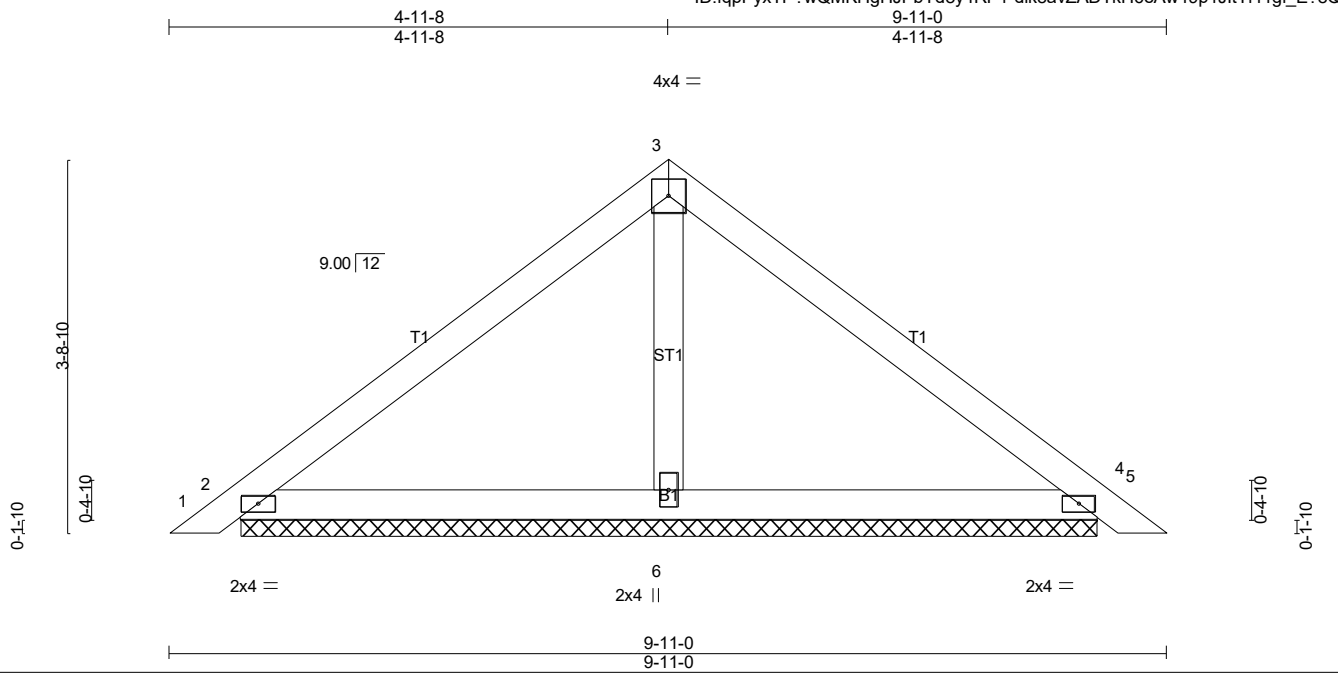



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.35 | Vert(LL) | 0.01 | 5 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.31 | Vert(CT) | 0.02 | 5 | n/r | 80 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 35 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

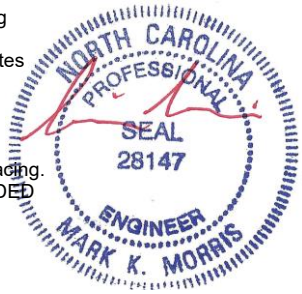
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=218/8-6-5 (min. 0-1-8), 4=218/8-6-5 (min. 0-1-8), 6=300/8-6-5 (min. 0-1-8)
Max Horz 2=-87(LC 10)
Max Uplift2=-61(LC 12), 4=-74(LC 13), 6=-1(LC 12)

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

**NOTES-** (11-14)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4, 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | PB03 | Piggyback | 5 | 1 | Job Reference (optional) **# 28669** |

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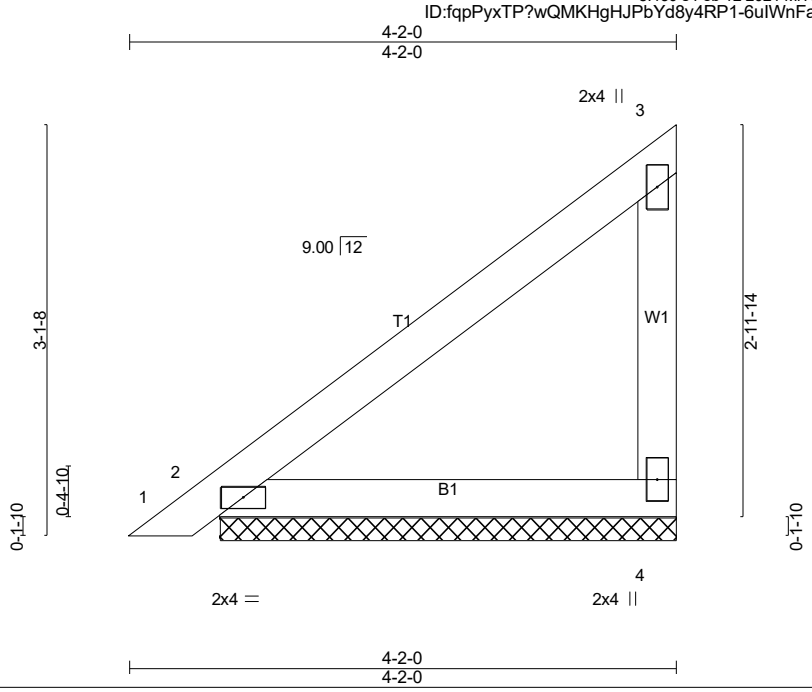


Scale = 1:17.5

| 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 | 0.21 | Vert(LL) | -0.00 | 1 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.22 | Vert(CT) | 0.00 | 1 | n/r | 80 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 16 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=131/3-5-11 (min. 0-1-8), 2=162/3-5-11 (min. 0-1-8)
Max Horz 2=108(LC 12)
Max Uplift4=-68(LC 12), 2=-5(LC 12)
Max Grav 4=142(LC 20), 2=162(LC 1)

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

**NOTES-** (10-13)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.


**LOAD CASE(S)** Standard

9/28/2021

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R01 | GABLE | 1 | 1 | # 28669 |

Job Reference (optional)

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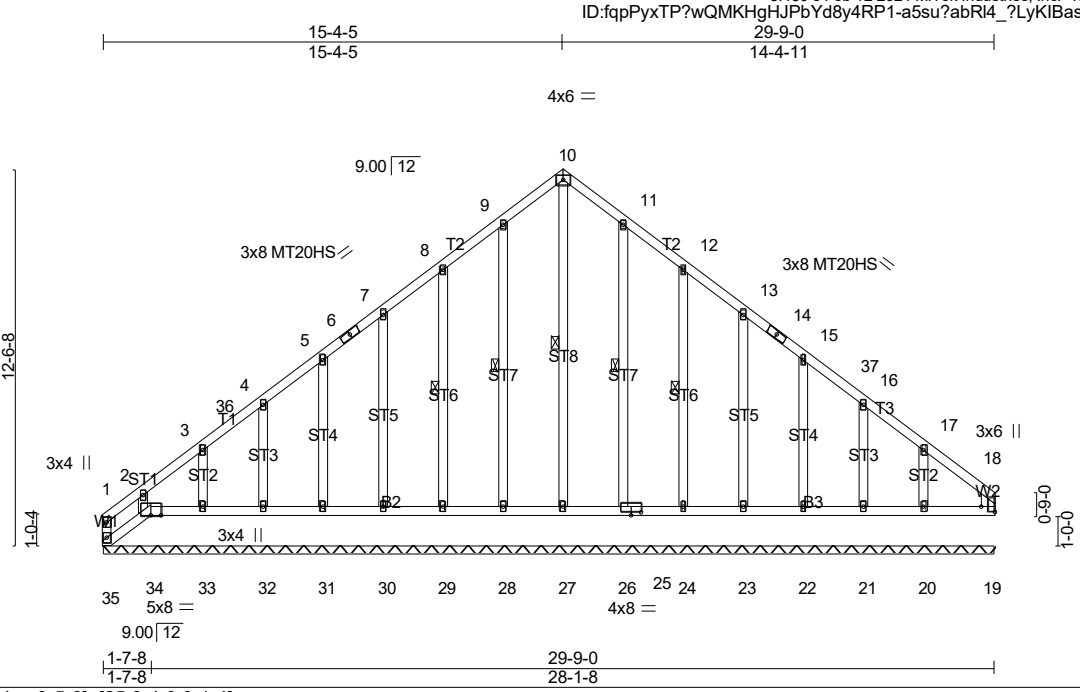


Plate Offsets (X,Y)-- [18:Edge,0-5-8], [25:0-4-0,0-1-4]

| 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 | 0.19 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.21 | Vert(CT) | n/a | - | n/a | 999 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.21 | Horz(CT) | 0.01 | 19 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 223 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
WEBS 2x4 SP No.3 *Except*
W2: 2x6 SP No.2
OTHERS 2x4 SP No.3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 10-27, 9-28, 8-29, 11-26, 12-24

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 29-9-0.
(lb) - Max Horz 35=280(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 19, 28, 29, 30, 31, 32, 33, 26, 24, 23, 22, 21 except 35=-271(LC 10), 34=-255(LC 9), 20=-166(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 19, 32, 33, 21, 20 except 35=331(LC 9), 34=316(LC 10), 27=344(LC 22), 28=270(LC 19), 29=262(LC 19), 30=261(LC 19), 31=267(LC 19), 26=257(LC 20), 24=262(LC 20), 23=260(LC 20), 22=273(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 8-9=-175/278, 9-10=-209/336, 10-11=-209/336, 11-12=-175/278
WEBS 10-27=-329/148

**NOTES-** (15-18)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 4-11-6, Exterior(2N) 4-11-6 to 10-6-12, Corner(3R) 10-6-12 to 20-1-15, Exterior(2N) 20-1-15 to 24-8-10, Corner(3E) 24-8-10 to 29-6-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) All plates are MT20 plates unless otherwise indicated.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 28, 29, 30, 31, 32, 33, 26, 24, 23, 22, 21 except (jt=lb) 35=271, 34=255, 20=166.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 19, 34, 27, 28, 29, 30, 31, 32, 33, 26, 24, 23, 22, 21, 20.

NORTH CAROLINA PROFESSIONAL SEAL 28147 ENGINEER MARK K. MORRIS

9/28/2021

Continued on page 2

**NOTES-** (15-18)

14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
15) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
16) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
17) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
18) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R02 | Roof Special | 6 | 1 | Job Reference (optional) **# 28669** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:12 2021 Page 1
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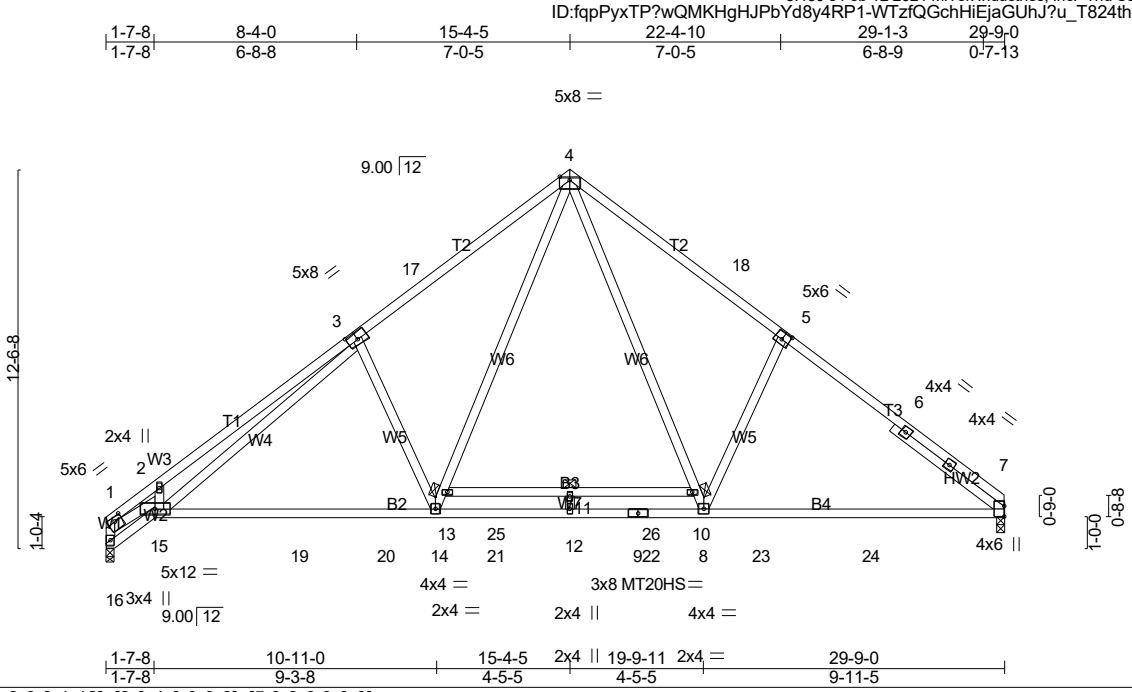



Scale = 1:76.3

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

| **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 | 0.92 | Vert(LL) | -0.43 | 11 | >830 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.77 | Vert(CT) | -0.62 | 11 | >577 | 180 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.94 | Horz(CT) | 0.16 | 7 | n/a | n/a | | |
| BCLL | 0.0 * | Code | IRC2018/TPI2014 | Matrix-SH | | | | | | | Weight: 191 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
B2,B4: 2x4 SP SS
WEBS 2x4 SP No.3
SLIDER Right 2x4 SP No.3 - 4-7-0

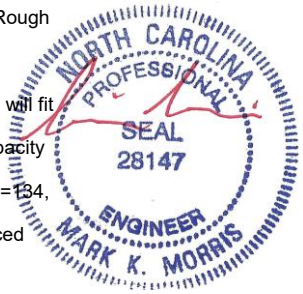
**BRACING-**
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-11-12 oc bracing. Except:
6-0-0 oc bracing: 10-13

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 16=1266/0-3-8 (min. 0-1-8), 7=1271/0-3-8 (min. 0-1-13)
Max Horz 16=-304(LC 10)
Max Uplift16=-134(LC 12), 7=-125(LC 13)
Max Grav 16=1516(LC 19), 7=1557(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-16=-1652/237, 1-2=-3255/508, 2-3=-3355/731, 3-17=-2067/289, 4-17=-1946/328, 4-18=-1847/323, 5-18=-1964/285, 5-6=-1925/226, 6-7=-2128/200
BOT CHORD 15-16=-342/381, 15-19=-233/1896, 19-20=-233/1896, 14-20=-233/1896, 14-21=-1/1312, 12-21=-1/1312, 9-12=-1/1312, 9-22=-1/1312, 8-22=-1/1312, 8-23=-72/1612, 23-24=-72/1612, 7-24=-72/1612
WEBS 1-15=-413/2552, 2-15=-248/260, 3-15=-539/1234, 3-14=-543/367, 13-14=-237/1081, 4-13=-212/1223, 4-10=-186/1070, 8-10=-212/929, 5-8=-387/331

**NOTES-** (10-13)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Interior(1) 4-11-6 to 10-6-12, Exterior(2R) 10-6-12 to 20-1-15, Interior(1) 20-1-15 to 24-11-6, Exterior(2E) 24-11-6 to 29-9-0 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=134, 7=125.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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Continued on page 2

**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R03 | Roof Special | 5 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:13 2021 Page 1
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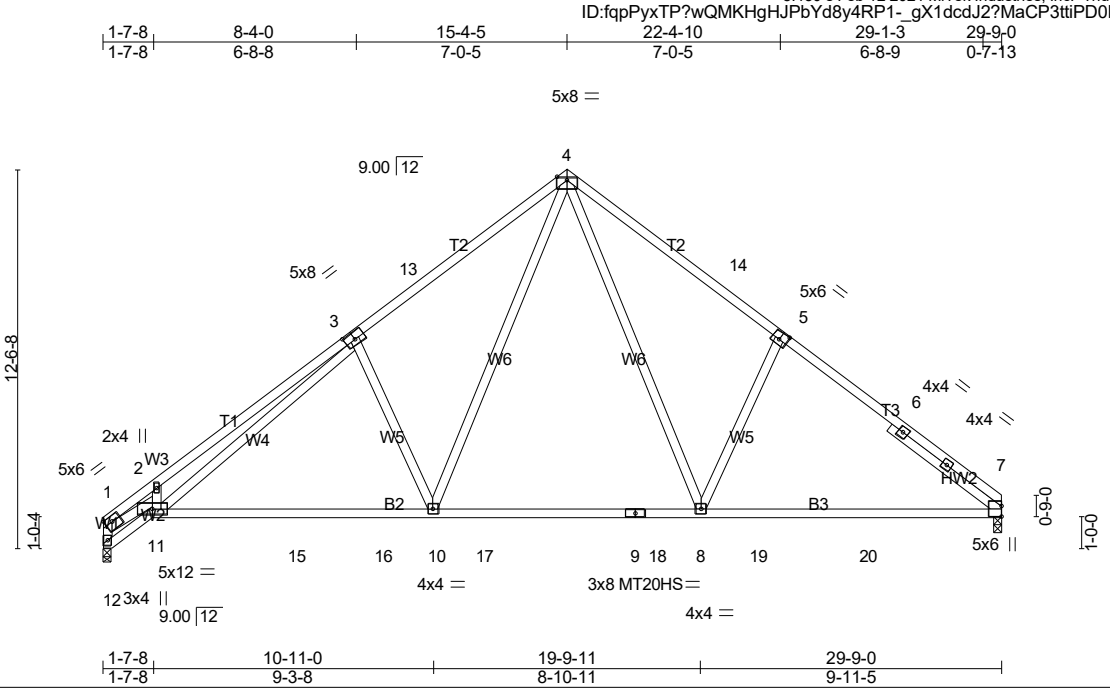



Plate Offsets (X,Y)-- [1:0-2-12,0-2-0], [3:0-4-0,0-3-0], [5:0-3-0,0-3-0]

| 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 | 0.69 | Vert(LL) | -0.26 | 8-10 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.86 | Vert(CT) | -0.45 | 10-11 | >790 | 180 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.84 | Horz(CT) | 0.14 | 7 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 178 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1 *Except*
B1: 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Right 2x4 SP No.3 - 4-7-0

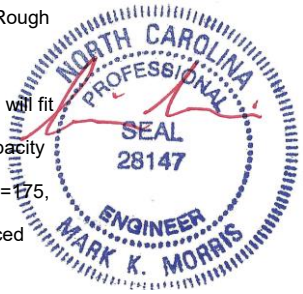
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-11-7 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 12=1184/0-3-8 (min. 0-1-8), 7=1184/0-3-8 (min. 0-1-10)
Max Horz 12=-304(LC 10)
Max Uplift12=-175(LC 12), 7=-169(LC 13)
Max Grav 12=1335(LC 19), 7=1365(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-1494/275, 1-2=-2949/583, 2-3=-3056/804, 3-13=-1740/363, 4-13=-1618/401, 4-14=-1531/393, 5-14=-1650/355, 5-6=-1606/298, 6-7=-1809/271
BOT CHORD 11-12=-342/384, 11-15=-292/1635, 15-16=-292/1635, 10-16=-292/1635, 10-17=-44/1040, 9-17=-44/1040, 9-18=-44/1040, 8-18=-44/1040, 8-19=-127/1367, 19-20=-127/1367, 7-20=-127/1367
WEBS 1-11=-470/2322, 2-11=-252/257, 3-11=-538/1263, 3-10=-545/368, 4-10=-260/1004, 4-8=-229/876, 5-8=-409/327

**NOTES-** (10-13)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Interior(1) 4-11-6 to 10-6-12, Exterior(2R) 10-6-12 to 20-1-15, Interior(1) 20-1-15 to 24-11-6, Exterior(2E) 24-11-6 to 29-9-0 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=175, 7=169.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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Continued on page 2

10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R04 | Roof Special Structural Gable | 1 | 1 | # 28669 |

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:14 2021 Page 1
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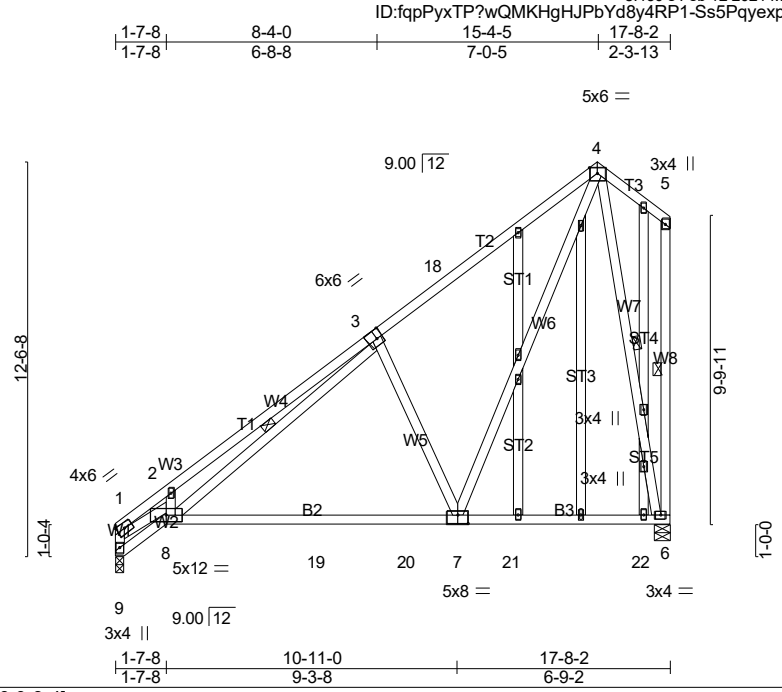


Plate Offsets (X,Y)-- [3:0-2-4,Edge], [7:0-4-0,0-3-4]

| 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 | 0.67 | Vert(LL) | -0.21 | 7-8 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.94 | Vert(CT) | -0.44 | 7-8 | >474 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.80 | Horz(CT) | 0.07 | 6 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 177 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
B1: 2x4 SP No.3
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 3-8, 5-6, 4-6

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 9=695/0-3-8 (min. 0-1-8), 6=695/0-6-8 (min. 0-1-8)
Max Horz 9=393(LC 12)
Max Uplift 9=-17(LC 12), 6=-271(LC 12)
Max Grav 9=747(LC 19), 6=925(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-870/267, 1-2=-1734/562, 2-3=-1898/780, 3-18=-714/117, 4-18=-592/155
BOT CHORD 8-9=-469/286, 8-19=-323/728, 19-20=-323/728, 7-20=-323/728
WEBS 1-8=-457/1391, 2-8=-294/252, 3-8=-753/1107, 3-7=-526/387, 4-7=-282/951, 4-6=-821/314

**NOTES-** (12-15)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Interior(1) 4-11-6 to 10-6-12, Exterior(2R) 10-6-12 to 15-4-5, Exterior(2E) 15-4-5 to 17-6-6 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 6=271.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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Continued on page 2

12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R05 | Roof Special | 5 | 1 | # 28669 |

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:15 2021 Page 1
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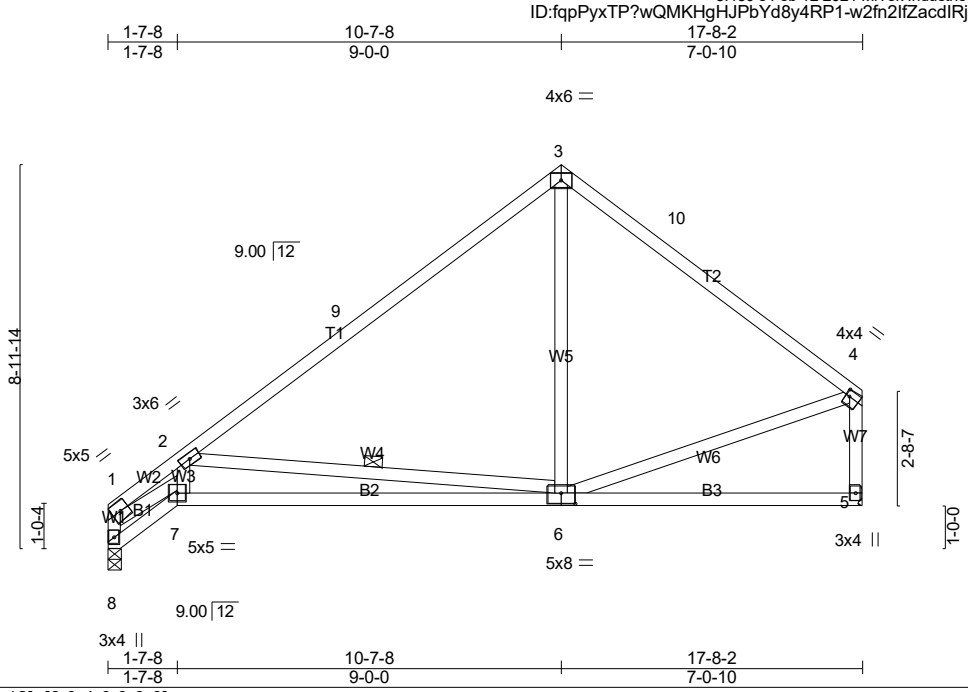



Plate Offsets (X,Y)-- [4:0-1-0,0-1-12], [6:0-4-0,0-3-0]

| 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 | 0.93 | Vert(LL) | -0.17 | 6-7 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.83 | Vert(CT) | -0.37 | 6-7 | >566 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.62 | Horz(CT) | 0.07 | 5 | n/a | n/a | | |
| BCLL | 0.0 * | Code | IRC2018/TPI2014 | Matrix-SH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 103 lb | FT = 20% |

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

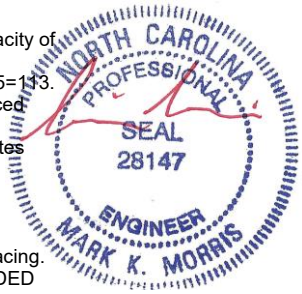
**BRACING-**
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 2-6

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 8=695/0-3-8 (min. 0-1-8), 5=695/Mechanical
Max Horz 8=190(LC 12)
Max Uplift 8=-95(LC 12), 5=-113(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-666/157, 1-2=-1738/639, 2-9=-701/114, 3-9=-530/143, 3-10=-474/166, 4-10=-647/142, 4-5=-644/152
BOT CHORD 6-7=-778/1587
WEBS 1-7=-668/1609, 2-7=-93/381, 2-6=-1157/716, 3-6=0/338, 4-6=-60/430

**NOTES-** (10-13)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Interior(1) 4-11-6 to 5-9-14, Exterior(2R) 5-9-14 to 12-8-12, Exterior(2E) 12-8-12 to 17-6-6 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 5=113.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

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**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R06 | Common | 6 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:16 2021 Page 1
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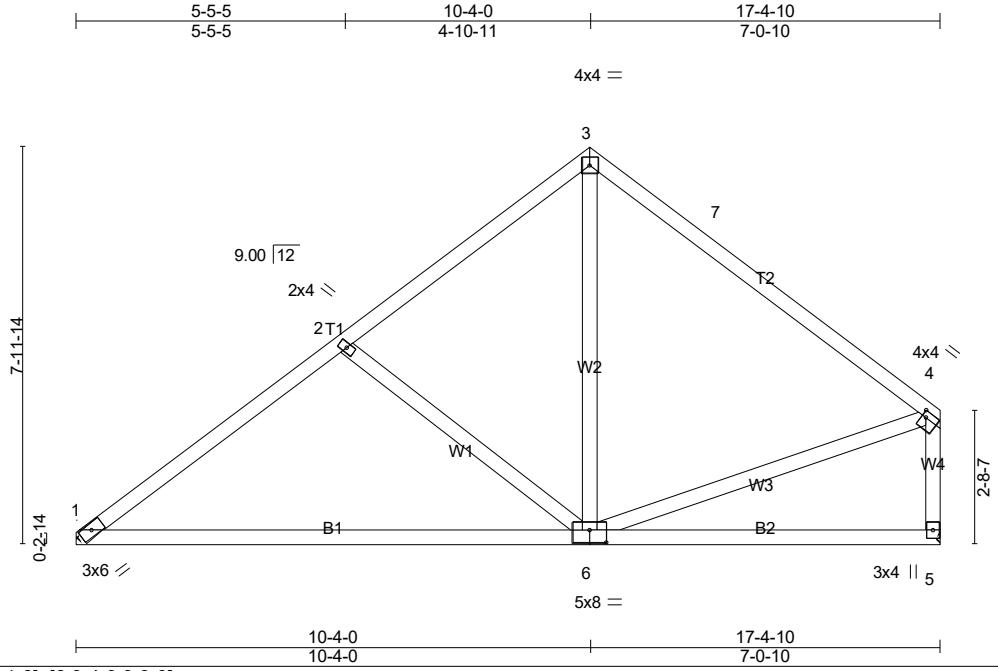



Plate Offsets (X,Y)-- [4:0-1-0,0-1-8], [6:0-4-0,0-3-0]

| 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 | 0.75 | Vert(LL) | -0.24 | 1-6 | >847 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.86 | Vert(CT) | -0.51 | 1-6 | >402 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.26 | Horz(CT) | 0.01 | 5 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 92 lb | FT = 20% |

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

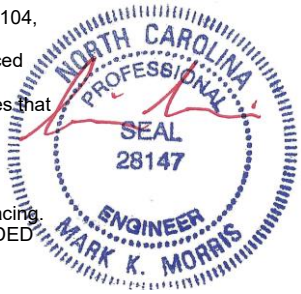
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=687/Mechanical, 5=687/Mechanical
Max Horz 1=183(LC 9)
Max Uplift1=-104(LC 12), 5=-100(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-859/183, 2-3=-609/166, 3-7=-464/148, 4-7=-637/127, 4-5=-640/144
BOT CHORD 1-6=-224/687
WEBS 2-6=-346/227, 3-6=-37/387, 4-6=-29/397

**NOTES-** (9-12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-12 to 4-10-6, Interior(1) 4-10-6 to 5-3-14, Exterior(2R) 5-3-14 to 12-5-4, Exterior(2E) 12-5-4 to 17-2-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=104, 5=100.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

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**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R07 | GABLE | 1 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

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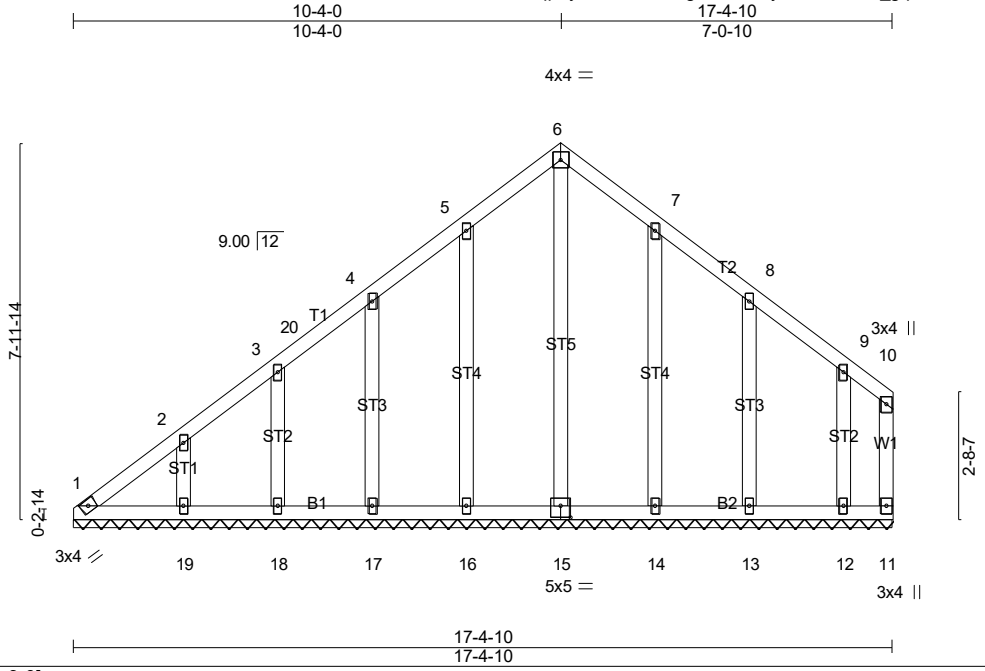


Plate Offsets (X,Y)-- [15:0-2-8,0-3-0]

| 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 | 0.07 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.10 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.28 | Horz(CT) | 0.00 | 11 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 114 lb | FT = 20% |

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 17-4-10.
(lb) - Max Horz 1=183(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 15, 16, 17, 18, 19, 14, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 17, 18, 19, 13, 12 except 15=321(LC 22), 16=280(LC 19), 14=273(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 5-6=-126/271, 6-7=-126/271

**NOTES-** (12-15)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 4-11-6, Exterior(2N) 4-11-6 to 5-6-6, Corner(3R) 5-6-6 to 12-4-0, Corner(3E) 12-4-0 to 17-2-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 15, 16, 17, 18, 19, 14, 13, 12.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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Continued on page 2

**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R08 | Flat Girder | 1 | 2 | Job Reference (optional) # 28669 |

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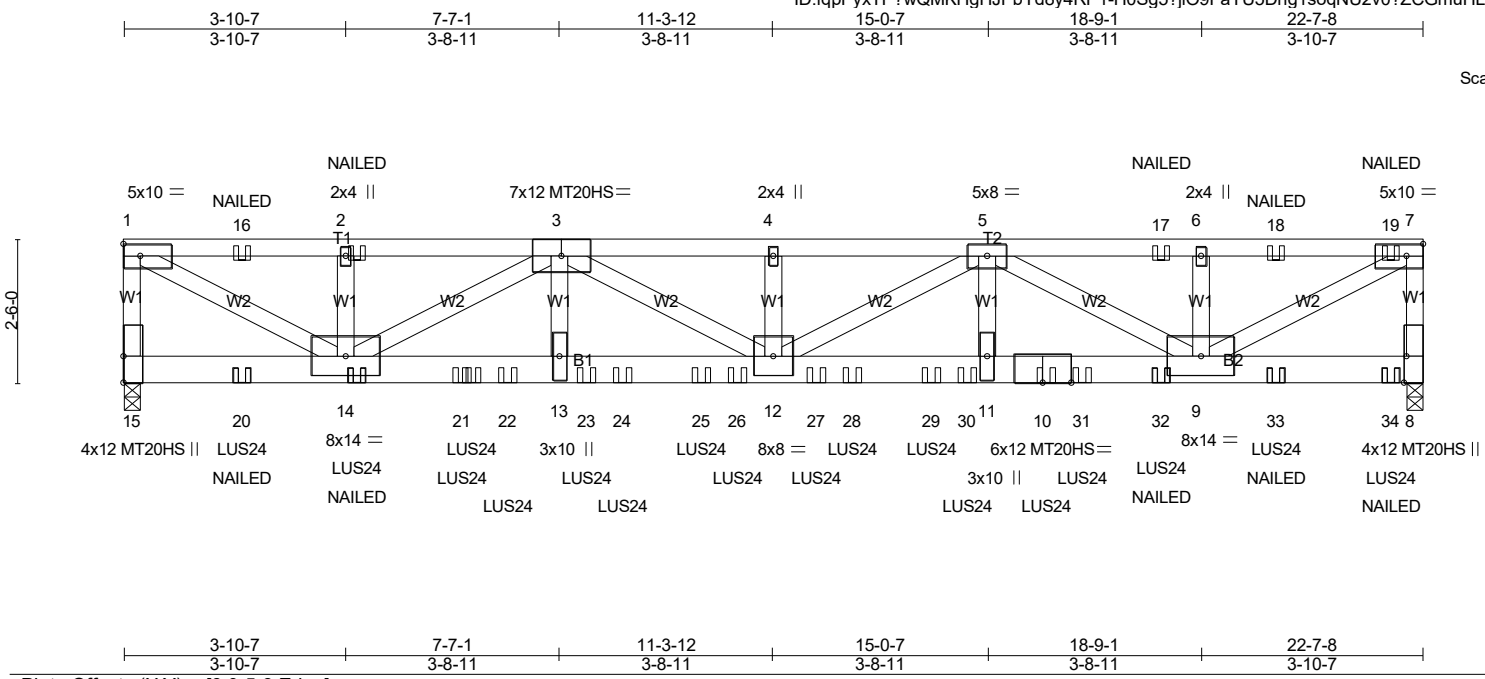


Plate Offsets (X,Y)-- [8:0-5-8,Edge]

| 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 | 0.78 | Vert(LL) | -0.32 | 12 | >834 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.73 | Vert(CT) | -0.59 | 12 | >458 | 180 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.88 | Horz(CT) | 0.09 | 8 | n/a | n/a | | |
| BCLL | 0.0 * | Code | IRC2018/TPI2014 | Matrix-SH | | | | | | | Weight: 278 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2 *Except* T2: 2x4 SP SS
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.3 *Except* W2: 2x4 SP No.1

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-8-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-10-12 oc bracing.

**REACTIONS.** (lb/size) 15=5929/0-3-8 (min. 0-3-0), 8=6479/0-3-8 (min. 0-3-4)
Max Horz 15=-77(LC 28)
Max Uplift15=-1420(LC 6), 8=-1619(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-15=-5484/1351, 1-16=-9389/2227, 2-16=-9389/2227, 2-3=-9389/2227, 3-4=-17064/3881, 4-5=-17064/3881, 5-17=-9329/2269, 6-17=-9329/2269, 6-18=-9329/2269, 18-19=-9329/2269, 7-19=-9329/2269, 7-8=-5568/1465
BOT CHORD 14-21=-3580/15477, 21-22=-3580/15477, 13-22=-3580/15477, 13-23=-3573/15440, 23-24=-3573/15440, 24-25=-3573/15440, 25-26=-3573/15440, 12-26=-3573/15440, 12-27=-3576/15307, 27-28=-3576/15307, 28-29=-3576/15307, 29-30=-3576/15307, 11-30=-3576/15307, 10-11=-3576/15307, 10-31=-3576/15307, 31-32=-3576/15307, 9-32=-3576/15307
WEBS 1-14=-2496/10620, 2-14=-426/304, 3-14=-6993/1532, 3-13=-450/2249, 3-12=-406/1874, 5-12=-389/2024, 5-11=-431/2131, 5-9=-6881/1495, 6-9=-456/330, 7-9=-2541/10541

**NOTES-** (16-19)
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=1420, 8=1619.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

NORTH CAROLINA PROFESSIONAL SEAL 28147 ENGINEER MARK K. MORRIS

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Continued on page 2

**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**NOTES-** (16-19)

11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 22-0-12 to connect truss(es) R06 (1 ply 2x4 SP), R05 (1 ply 2x4 SP) to front face of bottom chord.
12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 10-9-8 oc max. starting at 5-10-12 from the left end to 16-8-4 to connect truss(es) D01 (1 ply 2x4 SP) to back face of bottom chord.
13) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 6-8-4 from the left end to 14-8-4 to connect truss(es) D02 (1 ply 2x4 SP) to back face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.
15) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
16) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
17) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
18) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
19) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-7=-60, 8-15=-20
   Concentrated Loads (lb)
   Vert: 10=-675(F) 14=-667(F) 2=-156(B) 16=-156(B) 17=-156(B) 18=-156(B) 19=-173(B) 20=-667(F) 21=-996(F=-667, B=-329) 22=-356(B) 23=-667(F) 24=-356(B) 25=-667(F) 26=-356(B) 27=-667(F) 28=-356(B) 29=-675(F) 30=-356(B) 31=-329(B) 32=-675(F) 33=-675(F) 34=-683(F=-681, B=-2)


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| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R09 | Monopitch Supported Gable | 1 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

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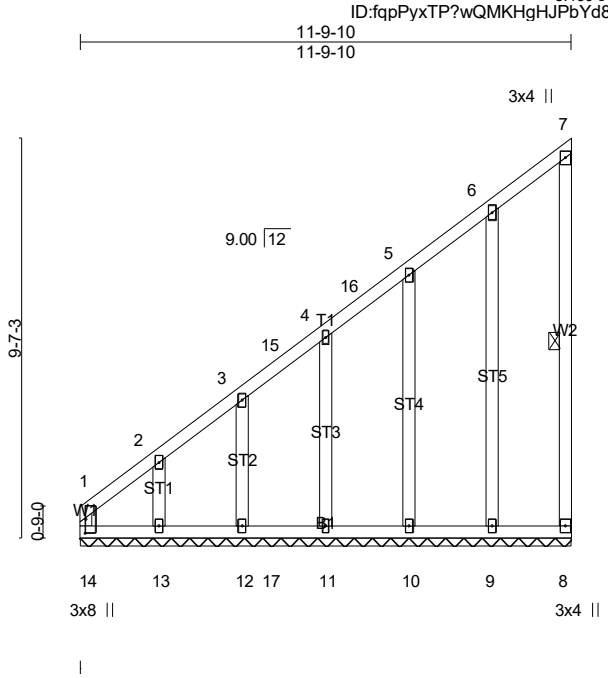


Plate Offsets (X,Y)-- [14:0-4-0,0-0-4]

| 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 | 0.41 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.43 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.16 | Horz(CT) | -0.00 | 8 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 88 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-8

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 11-9-10.
(lb) - Max Horz 14=326(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 14, 8, 11, 12, 10, 9 except 13=-235(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 8, 12, 13 except 14=346(LC 12), 11=267(LC 19), 10=262(LC 19), 9=268(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-14=-418/159, 1-2=-665/290, 2-3=-482/213, 3-15=-382/159, 4-15=-375/172, 4-16=-278/102, 5-16=-267/123
WEBS 2-13=-169/288

**NOTES-** (12-15)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 4-11-6, Exterior(2N) 4-11-6 to 6-10-4, Corner(3E) 6-10-4 to 11-7-14 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 8, 11, 12, 10, 9 except (jt=lb) 13=235.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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Continued on page 2

12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R12 | GABLE | 1 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

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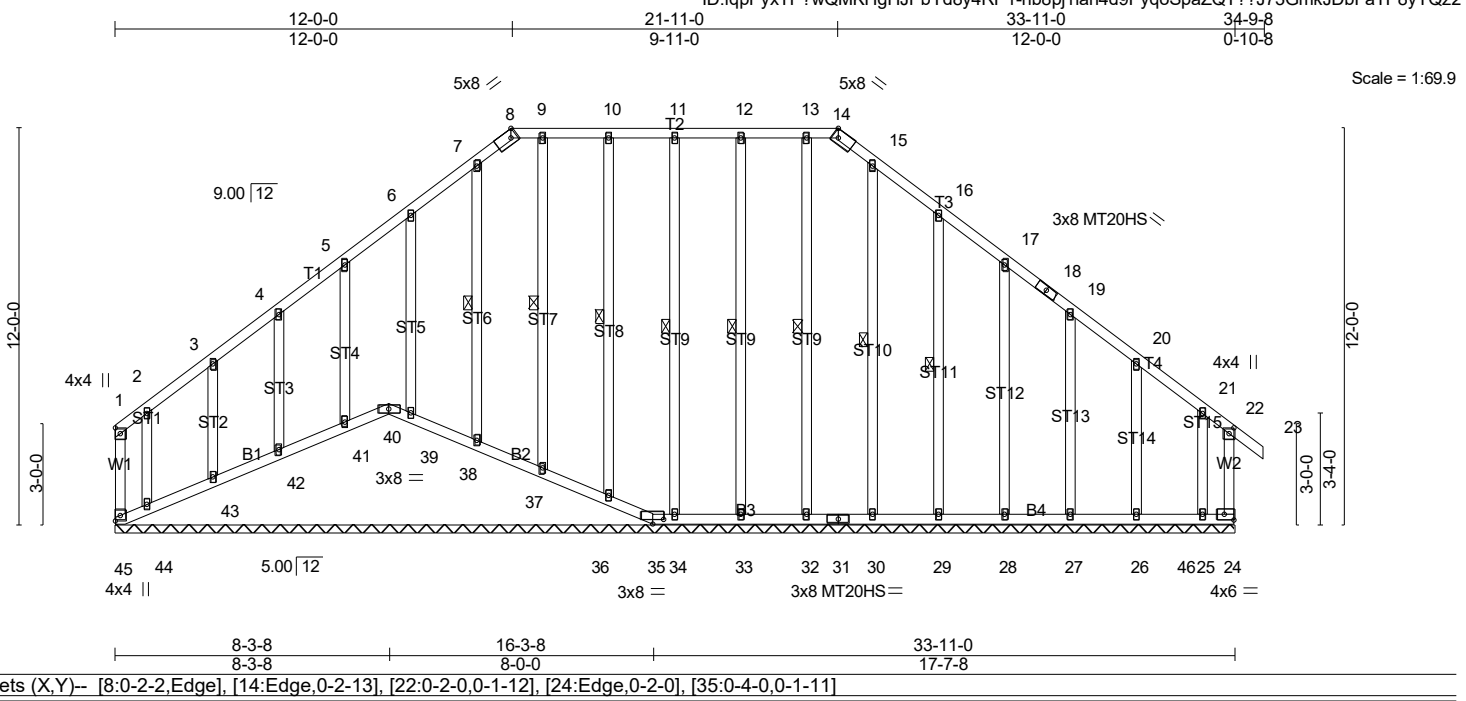



Plate Offsets (X,Y)-- [8:0-2-2,Edge], [14:Edge,0-2-13], [22:0-2-0,0-1-12], [24:Edge,0-2-0], [35:0-4-0,0-1-11]

| **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 | 0.78 | Vert(LL) | -0.00 | 23 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.63 | Vert(CT) | -0.00 | 23 | n/r | 80 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.16 | Horz(CT) | 0.24 | 14 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 311 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

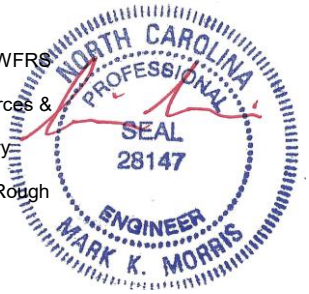
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 8-6-15 oc bracing: 44-45.
WEBS 1 Row at midpt 11-34, 10-36, 9-37, 7-38, 12-33, 13-32, 15-30, 16-29

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 33-11-0.
(lb) - Max Horz 45=-335(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 14, 35, 34, 36, 41, 42, 43, 33, 32, 30, 29, 28, 27, 26 except 45=-674(LC 8), 24=-601(LC 9), 40=-142(LC 11), 39=-113(LC 12), 44=-547(LC 9), 25=-607(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 14, 40, 35, 34, 36, 37, 38, 39, 41, 42, 43, 33, 32, 30, 26 except 45=678(LC 11), 24=651(LC 10), 44=657(LC 10), 29=271(LC 21), 28=260(LC 21), 27=267(LC 21), 25=657(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-45=-322/315, 1-2=-289/283, 4-5=-163/272, 5-6=-200/337, 6-7=-252/427, 7-8=-236/392, 8-9=-217/379, 9-10=-217/379, 10-11=-217/379, 11-12=-217/379, 12-13=-217/379, 13-14=-217/379, 14-15=-269/464, 15-16=-245/412, 16-17=-202/340, 17-18=-151/272, 18-19=-163/261, 21-22=-309/299, 22-24=-356/329
BOT CHORD 44-45=-306/305
WEBS 2-44=-306/266, 21-25=-305/298

**NOTES-** (17-20)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 4-11-8, Exterior(2N) 4-11-8 to 6-11-8, Corner(3R) 6-11-8 to 26-11-8, Exterior(2N) 26-11-8 to 29-11-14, Corner(3E) 29-11-14 to 34-9-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Gable requires continuous bottom chord bearing.

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Continued on page 2

**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**NOTES-** (17-20)

10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
11) Gable studs spaced at 2-0-0 oc.
12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
13) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 35, 34, 36, 41, 42, 43, 33, 32, 30, 29, 28, 27, 26 except (jt=lb) 45=674, 24=601, 40=142, 39=113, 44=547, 25=607.
15) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 40, 36, 37, 38, 39, 41, 42, 43, 44.
16) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
17) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
18) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
19) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
20) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R13 | Piggyback Base | 4 | 1 | Job Reference (optional) **# 28669** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:24 2021 Page 1
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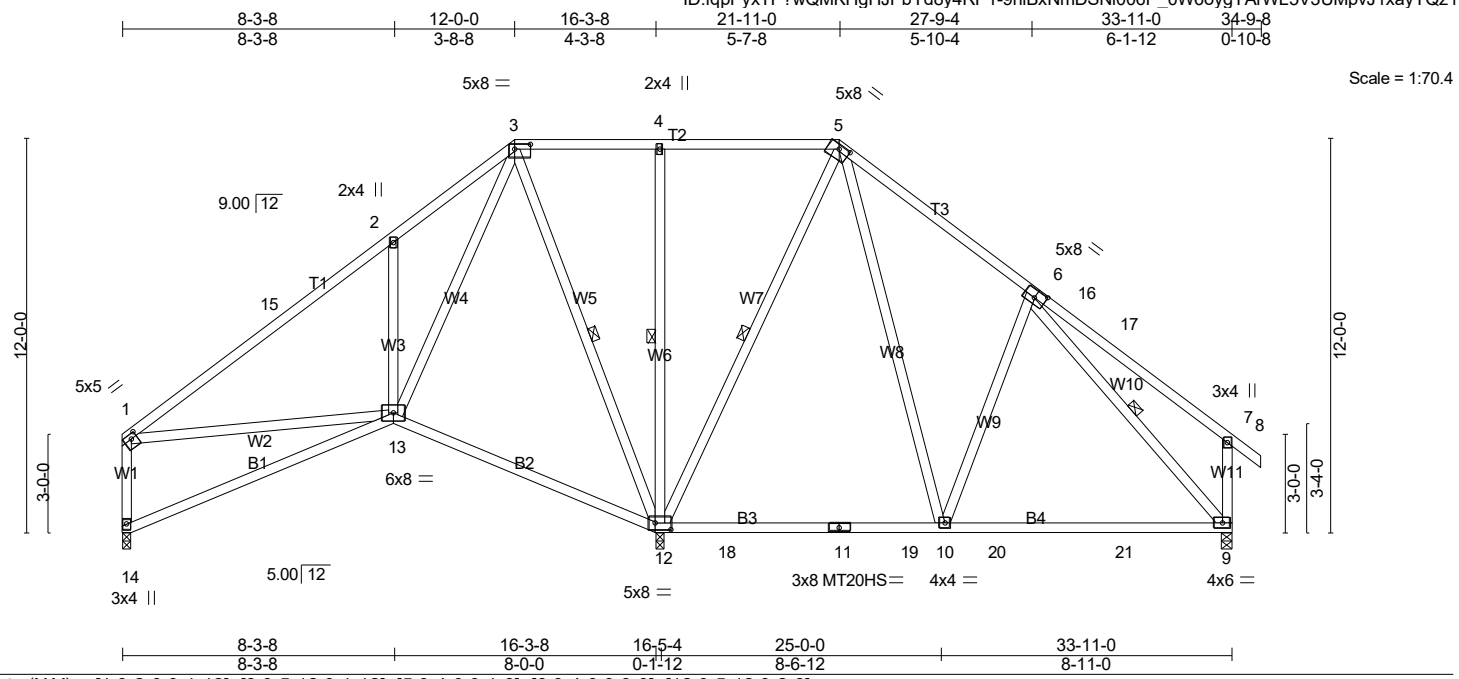


Plate Offsets (X,Y)-- [1:0-2-0,0-1-12], [3:0-5-12,0-1-12], [5:0-4-0,0-1-6], [6:0-4-0,0-3-0], [12:0-5-12,0-2-8]

| **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 | 0.79 | Vert(LL) | -0.35 | 10-12 | >599 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.84 | Vert(CT) | -0.44 | 10-12 | >471 | 180 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.67 | Horz(CT) | 0.03 | 9 | n/a | n/a | | |
| BCLL | 0.0 * | Code | IRC2018/TPI2014 | Matrix-SH | | | | | | | Weight: 251 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
B4: 2x4 SP No.1
WEBS 2x4 SP No.3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 3-12, 4-12, 5-12, 6-9

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 14=432/0-3-8 (min. 0-1-8), 12=1770/0-3-8 (min. 0-2-2), 9=550/0-3-8 (min. 0-1-8)
Max Horz 14=-334(LC 10)
Max Uplift14=-56(LC 13), 12=-225(LC 9), 9=-150(LC 13)
Max Grav 14=446(LC 30), 12=1801(LC 3), 9=771(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-15=-442/48, 2-15=-269/74, 2-3=-429/318, 3-4=-47/346, 4-5=-46/345, 5-6=-554/269, 1-14=-397/134, 7-9=-306/191
BOT CHORD 13-14=-345/418, 12-13=-239/260, 10-20=-49/364, 20-21=-49/364, 9-21=-49/364
WEBS 2-13=-512/393, 3-13=-319/878, 3-12=-717/218, 4-12=-362/178, 5-12=-793/127, 5-10=-161/751, 6-10=-255/276, 6-9=-482/42

**NOTES-** (12-15)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Exterior(2R) 4-11-6 to 28-8-7, Interior(1) 28-8-7 to 29-11-14, Exterior(2E) 29-11-14 to 34-9-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14 except (jt=lb) 12=225, 9=150.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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Continued on page 2

12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R14 | Piggyback Base | 5 | 1 | Job Reference (optional) **# 28669** |

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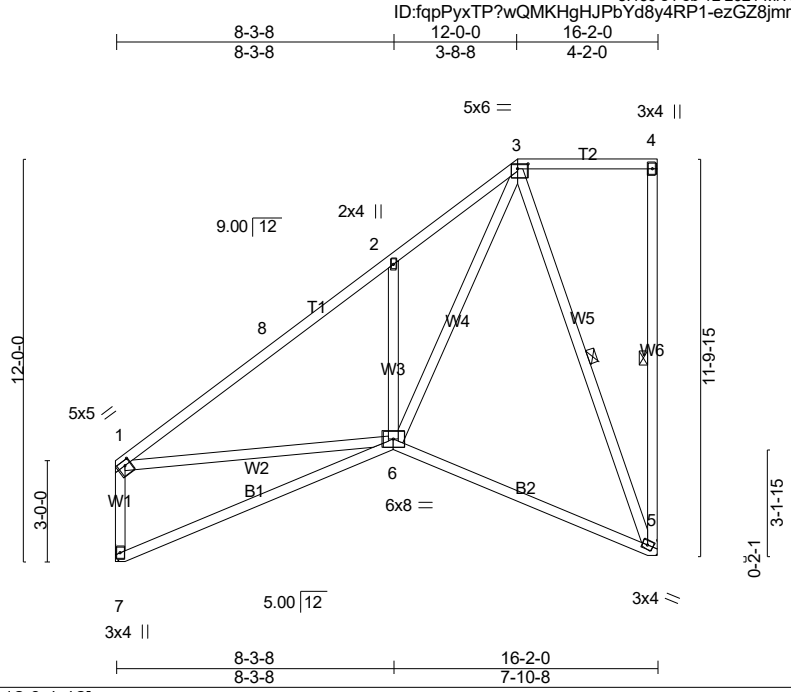



Plate Offsets (X,Y)-- [1:0-2-0,0-1-12], [3:0-3-12,0-1-12]

| **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 | 0.87 | Vert(LL) | -0.15 | 6-7 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.56 | Vert(CT) | -0.31 | 6-7 | >608 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.88 | Horz(CT) | 0.04 | 5 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 126 lb | FT = 20% |

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

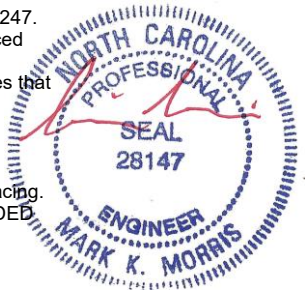
**BRACING-**
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-8-11 oc bracing.
WEBS 1 Row at midpt 4-5, 3-5

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 5=635/Mechanical, 7=635/Mechanical
Max Horz 7=345(LC 12)
Max Uplift5=-247(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-788/112, 2-8=-616/139, 2-3=-796/395, 1-7=-587/178
BOT CHORD 6-7=-428/250
WEBS 2-6=-510/392, 3-6=-551/931, 3-5=-547/316, 1-6=0/444

**NOTES-** (9-12)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Exterior(2R) 4-11-6 to 12-0-0, Exterior(2E) 12-0-0 to 16-0-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=247.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R15 | GABLE | 1 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:26 2021 Page 1
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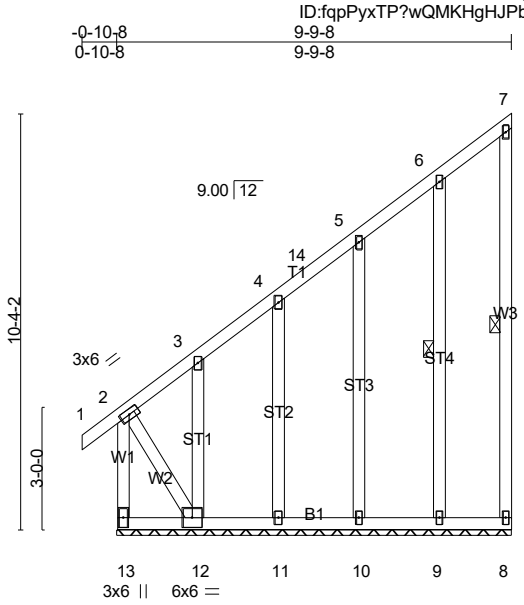



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.19 | Vert(LL) | 0.00 | 1 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.10 | Vert(CT) | -0.00 | 2 | n/r | 80 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.31 | Horz(CT) | -0.00 | 8 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 94 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.3 |
| WEBS | 2x4 SP No.3 |
| OTHERS | 2x4 SP No.3 |

**BRACING-**

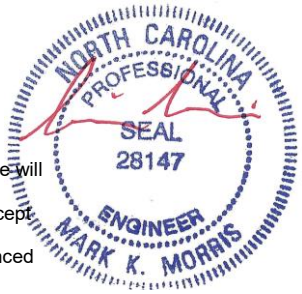
| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 12-13. |
| WEBS | 1 Row at midpt 7-8, 6-9 |

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 9-9-8.
(lb) - Max Horz 13=264(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 8, 11, 10, 9 except 13=-202(LC 10), 12=-490(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 8 except 13=561(LC 12), 12=365(LC 20), 11=271(LC 20), 10=263(LC 20), 9=260(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-13=-1034/430, 2-3=-517/231, 3-4=-419/182, 4-14=-293/108, 5-14=-282/130
BOT CHORD 12-13=-584/225
WEBS 2-12=-405/1051

**NOTES-** (13-16)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 4-0-0, Exterior(2N) 4-0-0 to 4-10-2, Corner(3E) 4-10-2 to 9-7-12 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 11, 10, 9 except (jt=lb) 13=202, 12=490.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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13) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
15) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
16) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R16 | Monopitch | 5 | 1 | Job Reference (optional) **# 28669** |

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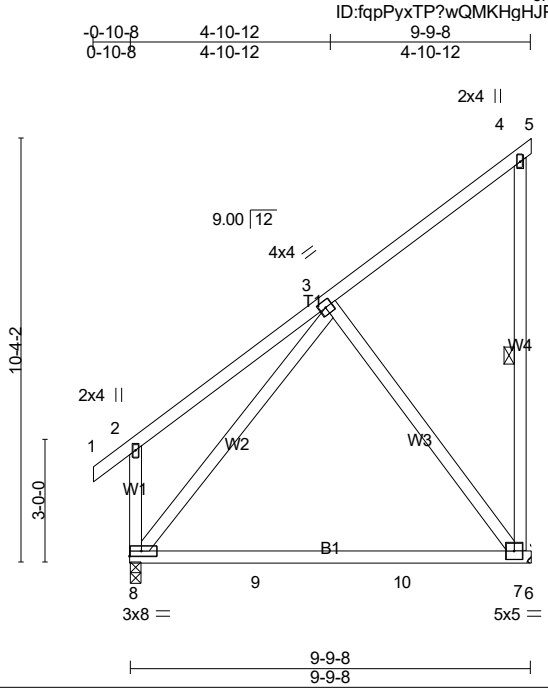



| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.87 | Vert(LL) | -0.39 | 7-8 | >286 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.58 | Vert(CT) | -0.62 | 7-8 | >181 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.37 | Horz(CT) | -0.00 | 7 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 75 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP SS
WEBS 2x4 SP No.3

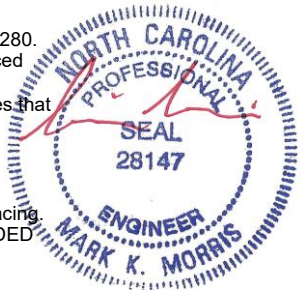
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-7

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 7=394/Mechanical, 8=439/0-3-8 (min. 0-1-8)
Max Horz 8=267(LC 12)
Max Uplift 7=-280(LC 12)
Max Grav 7=533(LC 20), 8=459(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-291/250
WEBS 3-7=-306/359, 3-8=-329/134

**NOTES-** (9-12)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 4-9-11, Exterior(2E) 4-9-11 to 9-9-8 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=280.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

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**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R17 | Monopitch Girder | 1 | 2 | Job Reference (optional) # 28669 |

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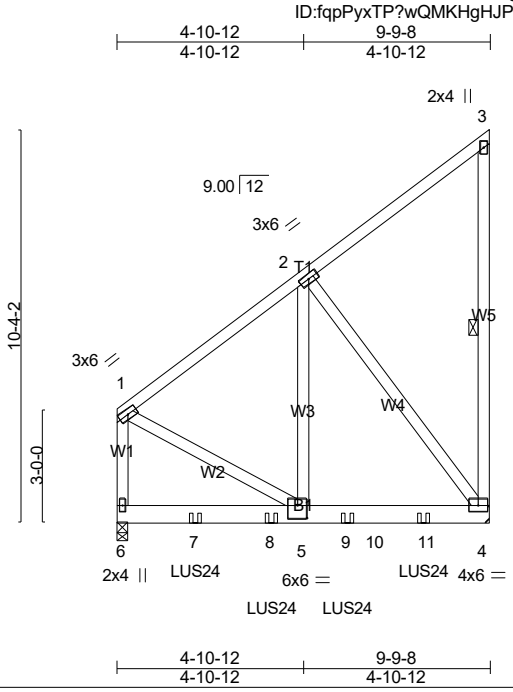



Plate Offsets (X,Y)-- [5:0-3-0,0-4-0]

| 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 | 0.23 | Vert(LL) | -0.02 | 4-5 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.52 | Vert(CT) | -0.04 | 4-5 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.36 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 173 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

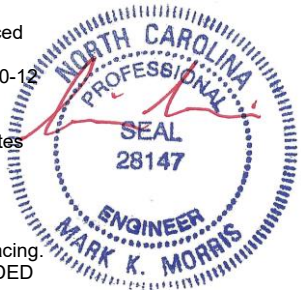
**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

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

**REACTIONS.** (lb/size) 4=1653/Mechanical, 6=1567/0-3-8 (min. 0-1-8)
Max Horz 6=239(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1124/0, 1-6=-1200/0
BOT CHORD 6-7=-262/164, 7-8=-262/164, 5-8=-262/164, 5-9=0/840, 9-10=0/840, 10-11=0/840, 4-11=0/840
WEBS 2-5=0/1393, 2-4=-1378/0, 1-5=0/907

**NOTES-** (11-14)
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 8-0-12 to connect truss(es) R14 (1 ply 2x4 SP) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

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**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**LOAD CASE(S)** Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-615(B) 8=-615(B) 9=-615(B) 11=-615(B)


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| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R18 | Roof Special Supported Gable | 1 | 1 | Job Reference (optional) **# 28669** |

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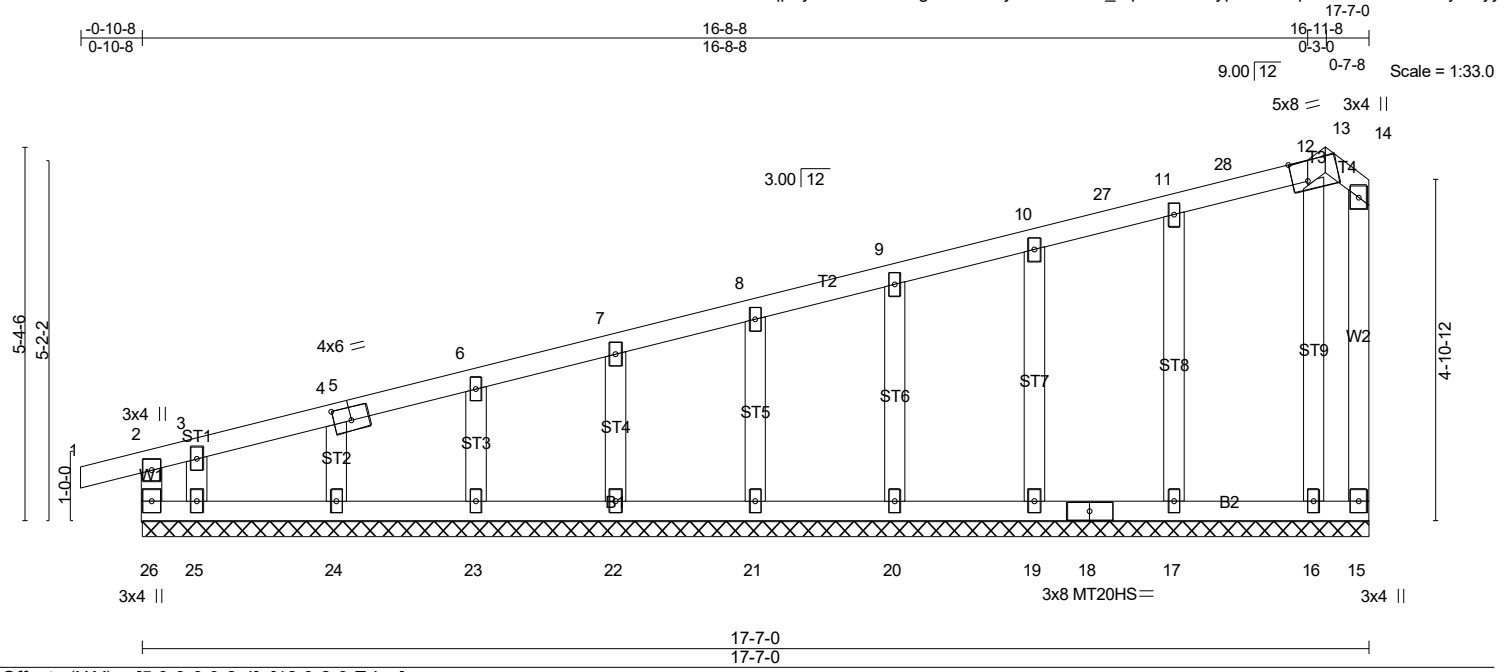



Plate Offsets (X,Y)-- [5:0-3-0,0-2-4], [12:0-2-9,Edge]

| **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 | 0.26 | Vert(LL) | -0.00 | 1 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.21 | Vert(CT) | -0.00 | 1 | n/r | 80 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | -0.00 | 15 | n/a | n/a | | |
| BCLL | 0.0 * | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | Weight: 98 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

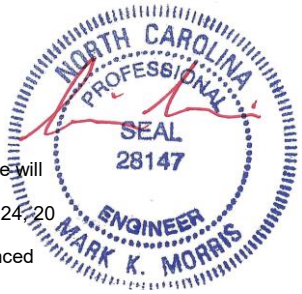
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 15-16.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 17-7-0.
(lb) - Max Horz 26=157(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 15, 21, 22, 23, 24, 20, 19, 17, 16 except 25=-222(LC 14)
Max Grav All reactions 250 lb or less at joint(s) 26, 15, 21, 22, 23, 24, 25, 20, 19, 16 except 17=259(LC 36)

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

**NOTES-** (16-19)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Exterior(2N) 3-11-2 to 16-8-8, Corner(3R) 16-8-8 to 16-11-8, Corner(3E) 16-11-8 to 17-5-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Gable requires continuous bottom chord bearing.
10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
11) Gable studs spaced at 2-0-0 oc.
12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
13) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 21, 22, 23, 24, 20, 19, 17, 16 except (jt=lb) 25=222.
15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

16) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
17) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
18) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
19) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | R19 | Roof Special | 4 | 1 | Job Reference (optional) **# 28669** |

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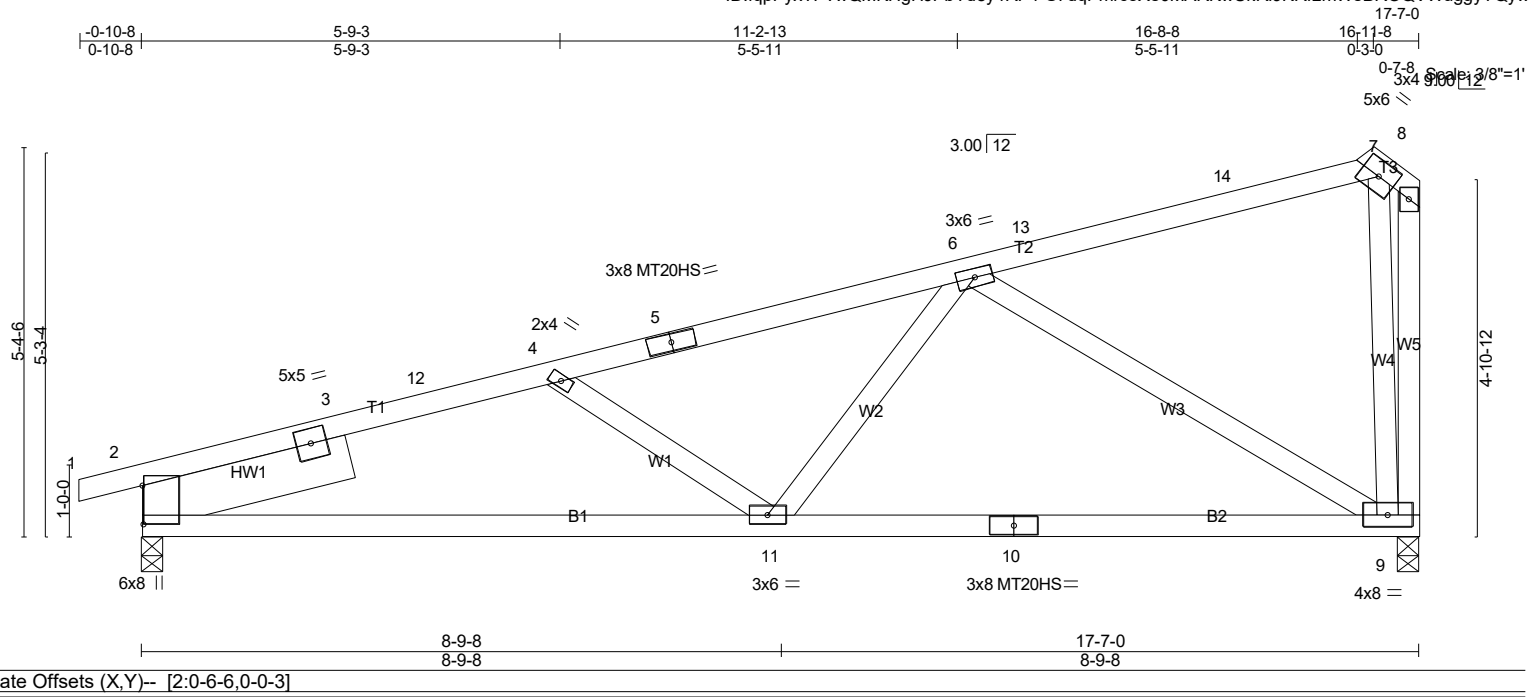


Plate Offsets (X,Y)-- [2:0-6-6,0-0-3]

| **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 | 0.50 | Vert(LL) | -0.13 | 9-11 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.73 | Vert(CT) | -0.28 | 9-11 | >732 | 180 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.79 | Horz(CT) | 0.03 | 9 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 99 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x8 SP No.2 - 2-11-10

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 4-3-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-2-1 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=740/0-3-8 (min. 0-1-8), 9=702/0-3-8 (min. 0-1-8)
Max Horz 2=169(LC 14)
Max Uplift 2=-171(LC 10), 9=-187(LC 14)
Max Grav 2=741(LC 21), 9=704(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1361/270, 3-12=-1291/282, 4-12=-1274/286, 4-5=-1090/182, 5-6=-1055/191
BOT CHORD 2-11=-403/1222, 10-11=-270/785, 9-10=-270/785
WEBS 6-11=-6/490, 6-9=-891/306, 7-9=-262/245

**NOTES-** (11-14)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 12-3-0, Exterior(2R) 12-3-0 to 17-0-10, Exterior(2E) 17-0-10 to 17-5-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=171, 9=187.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


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11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT01 | GABLE | 1 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:32 2021 Page 1
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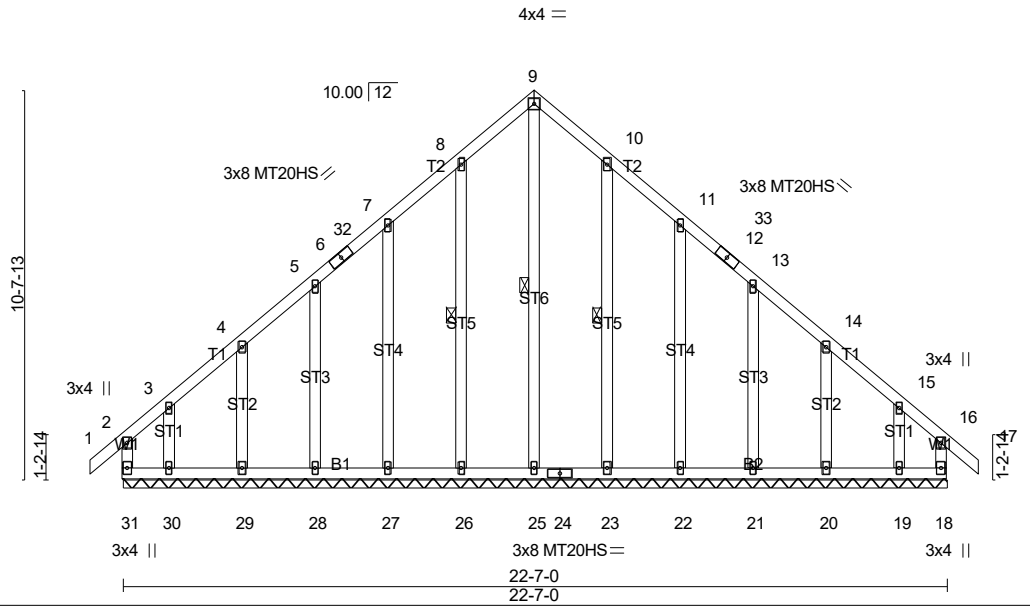


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.25 | Vert(LL) | -0.00 | 17 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.22 | Vert(CT) | -0.00 | 17 | n/r | 80 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.19 | Horz(CT) | 0.01 | 18 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-R | | | | | | | Weight: 174 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.3 |
| WEBS | 2x4 SP No.3 |
| OTHERS | 2x4 SP No.3 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing. |
| WEBS | 1 Row at midpt 9-25, 8-26, 10-23 |

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 22-7-0.
(lb) - Max Horz 31=-288(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 26, 27, 28, 29, 23, 22, 21, 20 except 31=-215(LC 8), 18=-168(LC 9), 30=-223(LC 12), 19=-209(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 18, 29, 20, 19 except 31=270(LC 21), 25=361(LC 23), 26=275(LC 20), 27=262(LC 20), 28=273(LC 20), 30=266(LC 10), 23=273(LC 21), 22=263(LC 21), 21=273(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 7-8=-165/260, 8-9=-206/328, 9-10=-206/328, 10-11=-165/260
WEBS 9-25=-347/161

**NOTES-** (12-15)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 6-5-14, Exterior(2R) 6-5-14 to 16-1-2, Interior(1) 16-1-2 to 18-7-14, Exterior(2E) 18-7-14 to 23-5-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) All plates are MT20 plates unless otherwise indicated.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 26, 27, 28, 29, 23, 22, 21, 20 except (jt=lb) 31=215, 18=168, 30=223, 19=209.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


9/28/2021

Continued on page 2

**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT02 | Valley | 1 | 1 | # 28669 |

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:33 2021 Page 1
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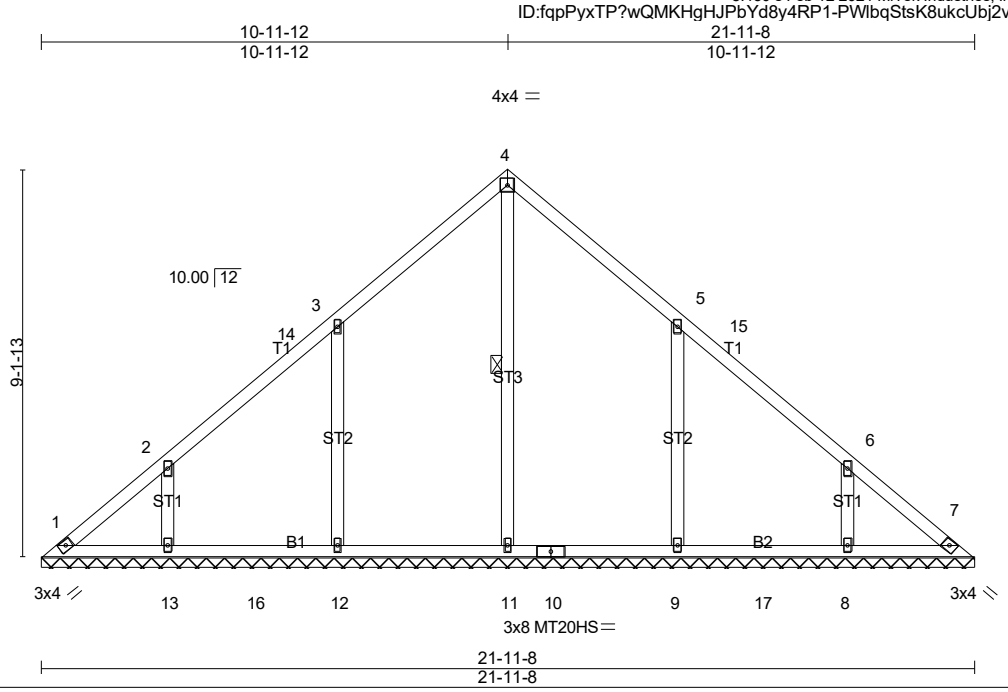


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.20 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.38 | Vert(CT) | n/a | - | n/a | 999 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.17 | Horz(CT) | 0.01 | 7 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 108 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 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.
WEBS 1 Row at midpt 4-11

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 21-11-8.
(lb) - Max Horz 1=-218(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 12=-202(LC 12), 13=-162(LC 12), 9=-201(LC 13), 8=-162(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=454(LC 22), 12=544(LC 19), 13=328(LC 19), 9=544(LC 20), 8=329(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-12=-298/244, 5-9=-298/243

**NOTES-** (11-14)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 5-2-7, Interior(1) 5-2-7 to 6-2-2, Exterior(2R) 6-2-2 to 15-9-6, Interior(1) 15-9-6 to 16-9-1, Exterior(2E) 16-9-1 to 21-6-11 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 12=202, 13=162, 9=201, 8=162.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


9/28/2021

Continued on page 2

**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT03 | Valley | 1 | 1 | Job Reference (optional) **# 28669** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:34 2021 Page 1
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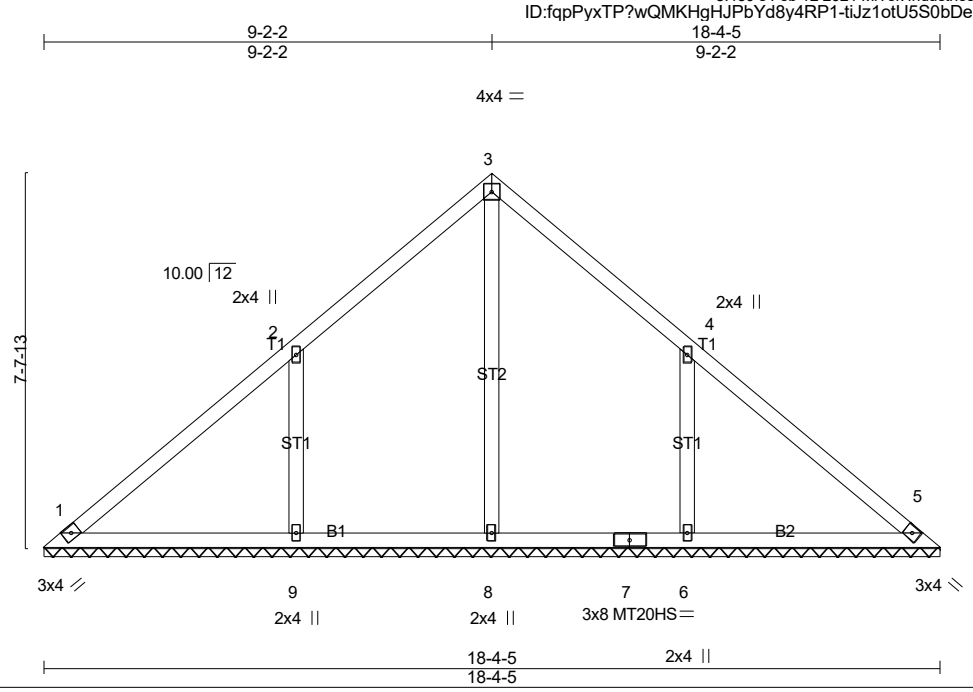



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.27 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.41 | Vert(CT) | n/a | - | n/a | 999 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.16 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 83 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

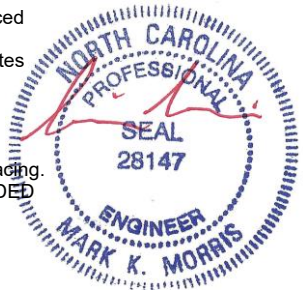
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 18-4-5.
(lb) - Max Horz 1=-181(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-247(LC 12), 6=-247(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=431(LC 22), 9=551(LC 19), 6=551(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-343/273, 4-6=-342/273

**NOTES-** (10-13)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 5-2-2, Exterior(2R) 5-2-2 to 13-2-2, Exterior(2E) 13-2-2 to 17-11-7 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) All plates are MT20 plates unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=247, 6=247.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT04 | Valley | 1 | 1 | # 28669 |

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:35 2021 Page 1
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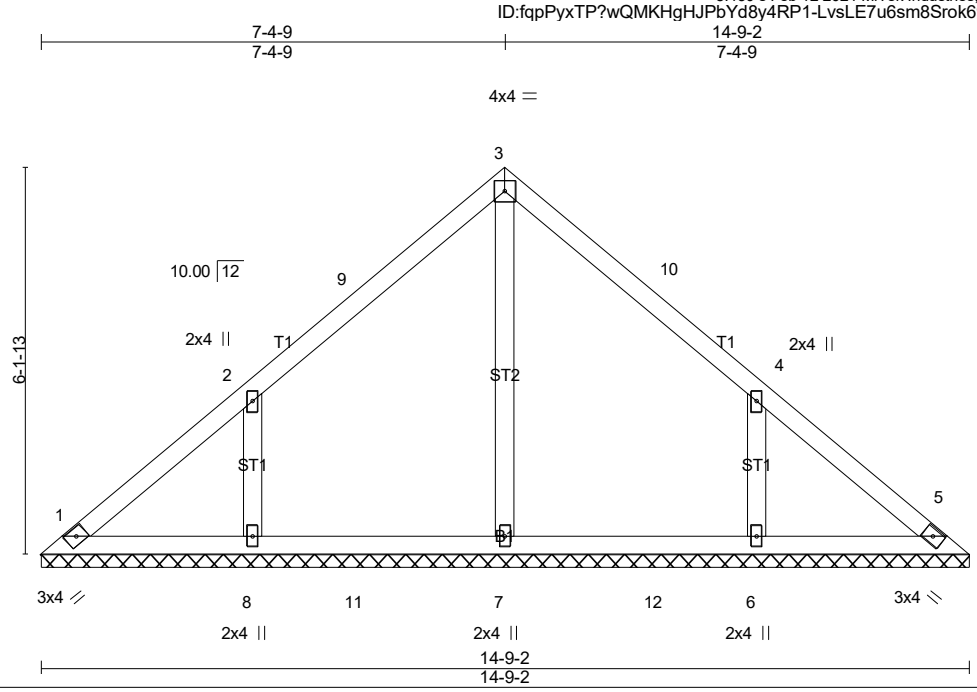



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.17 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.35 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.10 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 64 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

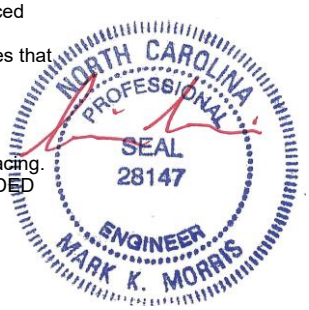
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 14-9-2.
(lb) - Max Horz 1=-144(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-194(LC 12), 6=-194(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=404(LC 19), 8=387(LC 19), 6=387(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-276/224, 4-6=-276/224

**NOTES-** (9-12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 5-2-7, Exterior(2R) 5-2-7 to 9-6-11, Exterior(2E) 9-6-11 to 14-4-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 1, 5 except (jt=lb) 8=194, 6=194.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT05 | Valley | 1 | 1 | Job Reference (optional) **# 28669** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:36 2021 Page 1
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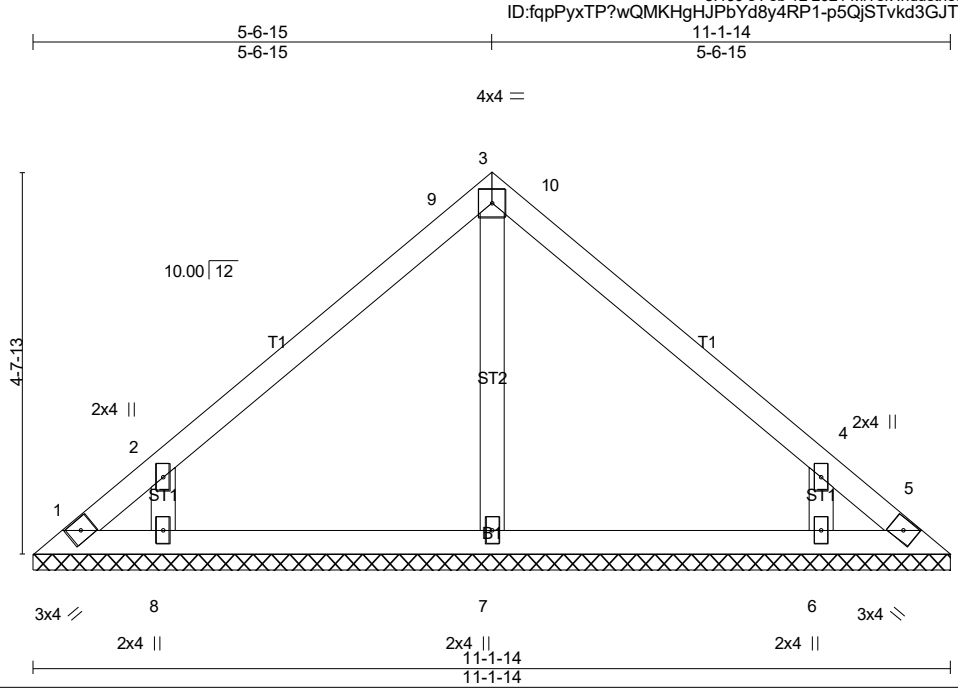



| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.17 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.21 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 45 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

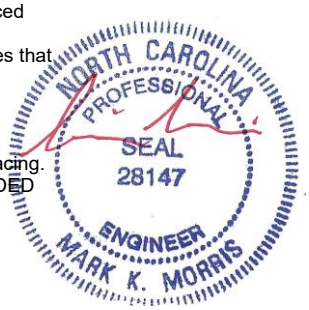
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 11-1-14.
(lb) - Max Horz 1=-107(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-183(LC 12), 6=-183(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=331(LC 19), 6=331(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-279/247, 4-6=-279/247

**NOTES-** (9-12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 5-2-7, Exterior(2R) 5-2-7 to 5-11-7, Exterior(2E) 5-11-7 to 10-9-1 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=183, 6=183.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT06 | Valley | 1 | 1 | Job Reference (optional) **# 28669** |

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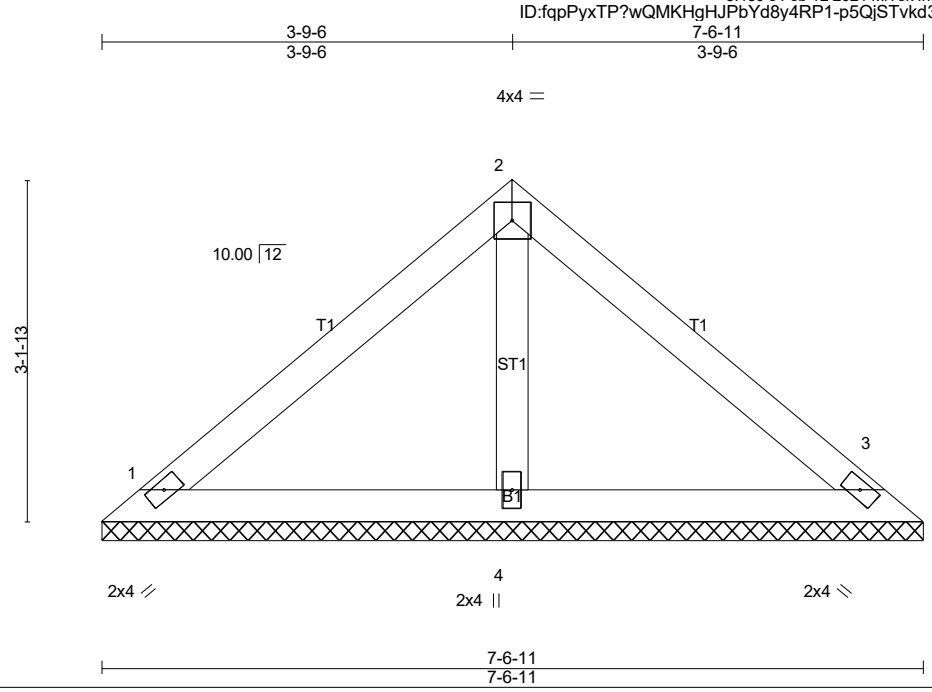


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.22 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.20 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 28 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=154/7-6-11 (min. 0-1-8), 3=154/7-6-11 (min. 0-1-8), 4=231/7-6-11 (min. 0-1-8)
Max Horz 1=70(LC 9)
Max Uplift1=-40(LC 13), 3=-48(LC 13)

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

**NOTES-** (9-12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT06A | Valley | 1 | 1 | Job Reference (optional) **# 28669** |

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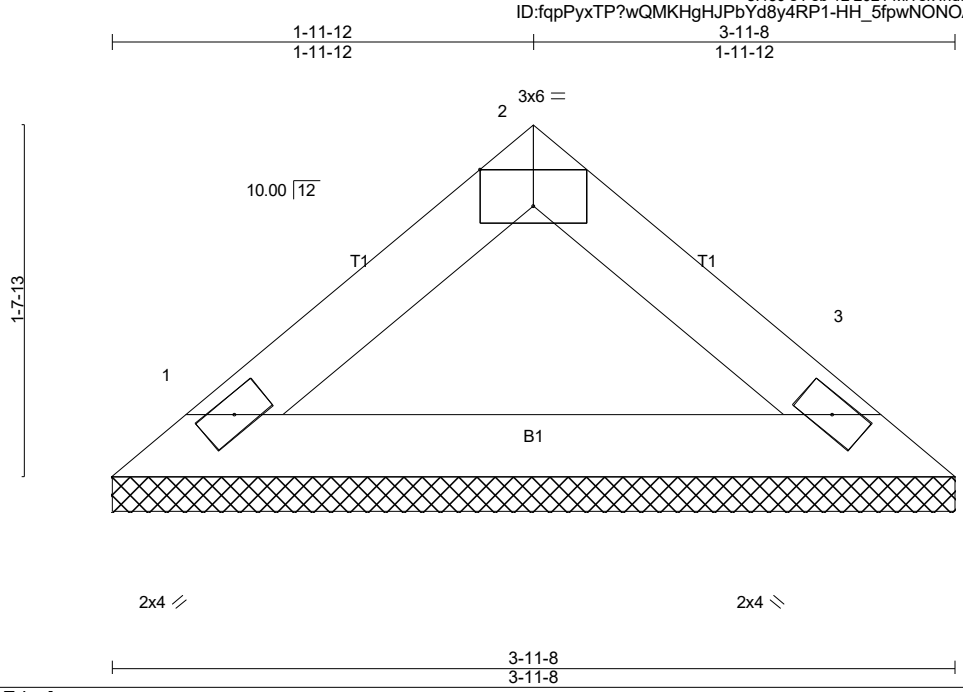



Plate Offsets (X,Y)-- [2:0-3-0,Edge]

| **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 | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.20 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 12 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-11-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

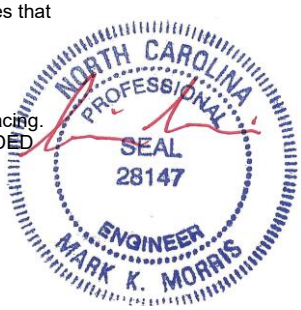
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=126/3-11-8 (min. 0-1-8), 3=126/3-11-8 (min. 0-1-8)
Max Horz 1=32(LC 9)
Max Uplift1=-18(LC 12), 3=-18(LC 13)

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

**NOTES-** (9-12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard




*9/28/2021*

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT07 | Valley | 1 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

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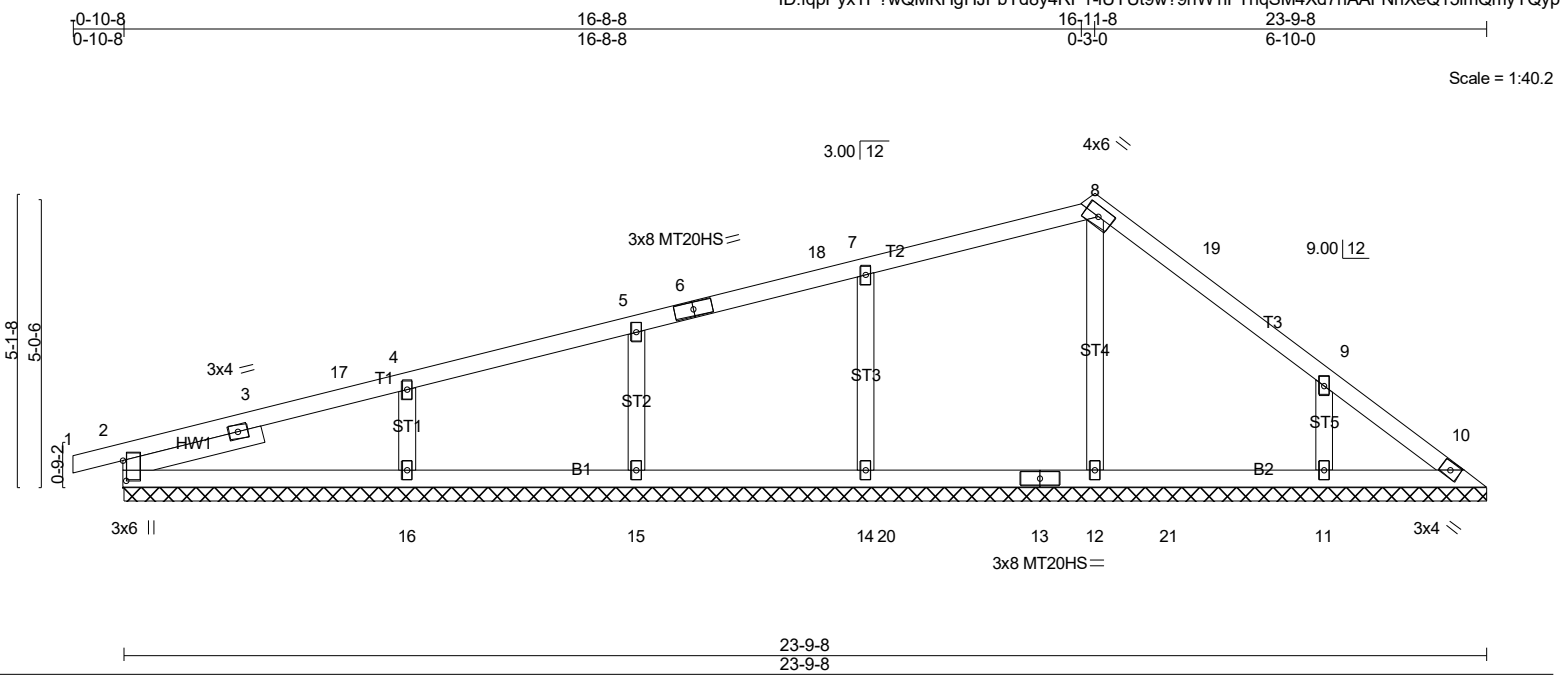


Plate Offsets (X,Y)-- [2:0-4-4,0-0-11]

| 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 | 0.29 | Vert(LL) | -0.00 | 1 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.33 | Vert(CT) | 0.01 | 1 | n/r | 80 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.12 | Horz(CT) | 0.00 | 10 | n/a | n/a | | |
| BCLL | 0.0 * | Code | IRC2018/TPI2014 | Matrix-SH | | | | | | | Weight: 98 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 - 2-6-4

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

**REACTIONS.** All bearings 23-9-8.
(lb) - Max Horz 2=126(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 10, 2, 14, 15 except 16=-114(LC 14), 11=-160(LC 15)
Max Grav All reactions 250 lb or less at joint(s) 10 except 2=251(LC 21), 12=390(LC 6), 14=464(LC 5), 15=315(LC 21), 16=398(LC 32), 11=407(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 7-14=-374/154, 4-16=-292/152, 9-11=-341/201

**NOTES-** (13-16)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 12-3-0, Exterior(2R) 12-3-0 to 18-6-10, Exterior(2E) 18-6-10 to 23-4-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) All plates are MT20 plates unless otherwise indicated.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 2, 14, 15 except (jt=lb) 16=114, 11=160.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


9/28/2021

Continued on page 2

**Warning - Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

13) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
15) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
16) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT08 | Valley | 1 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

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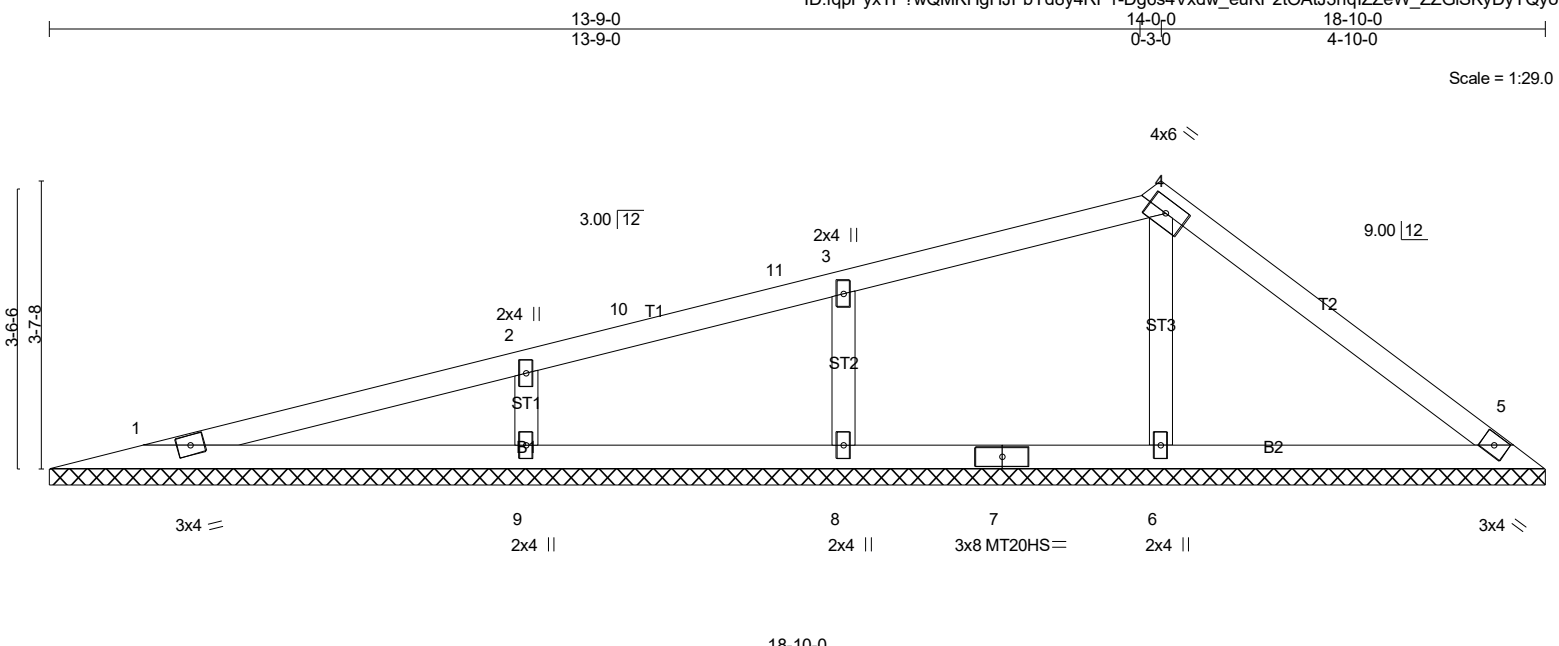



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.39 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.46 | Vert(CT) | n/a | - | n/a | 999 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 65 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

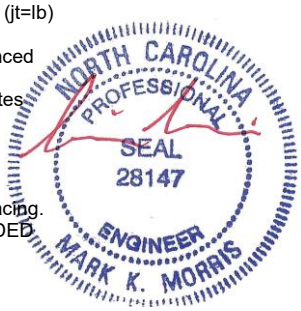
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 18-10-0.
(lb) - Max Horz 1=89(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6, 8 except 9=-107(LC 10)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=397(LC 21), 8=405(LC 20), 9=422(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-6=-261/99, 3-8=-343/158, 2-9=-303/149

**NOTES-** (11-14)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-2-3 to 6-0-0, Interior(1) 6-0-0 to 9-3-8, Exterior(2R) 9-3-8 to 14-1-2, Exterior(2E) 14-1-2 to 18-4-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) All plates are MT20 plates unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 6, 8 except (jt=lb) 9=107.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT09 | Valley | 1 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:40 2021 Page 1
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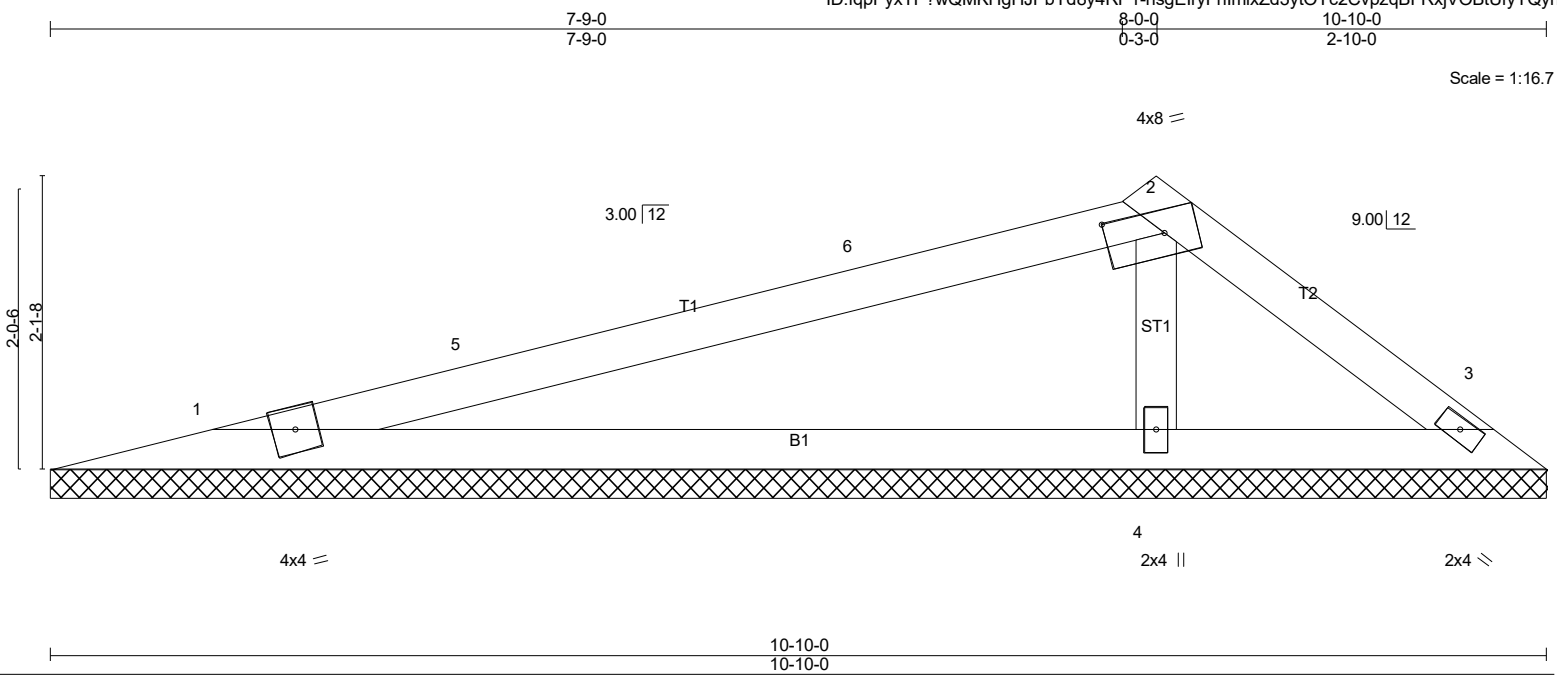



Plate Offsets (X,Y)-- [2:0-5-2,0-2-0]

| 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 | 0.79 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.82 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 33 lb | FT = 20% |

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

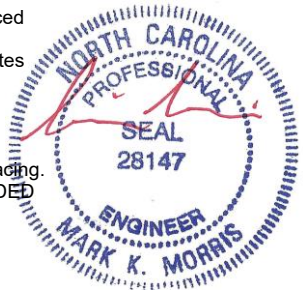
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=243/10-10-0 (min. 0-1-8), 3=11/10-10-0 (min. 0-1-8), 4=483/10-10-0 (min. 0-1-8)
Max Horz 1=48(LC 11)
Max Uplift1=-59(LC 10), 3=-36(LC 31), 4=-73(LC 10)
Max Grav 1=267(LC 20), 3=83(LC 21), 4=517(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-320/214

**NOTES-** (10-13)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-2-3 to 5-11-13, Exterior(2R) 5-11-13 to 8-1-2, Exterior(2E) 8-1-2 to 10-4-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT12 | Valley | 1 | 1 | # 28669 |
| | | | | | Job Reference (optional) |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:41 2021 Page 1
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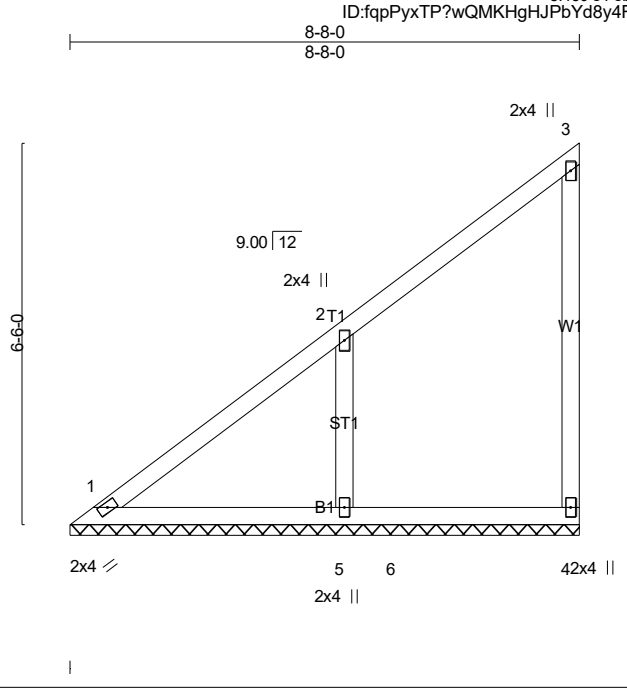



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.27 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.40 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.00 | | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 41 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

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

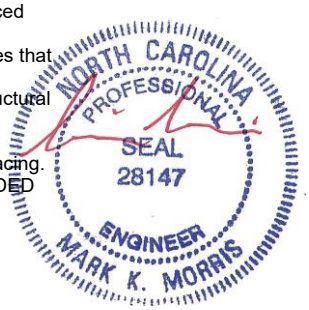
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=130/8-8-0 (min. 0-1-8), 4=112/8-8-0 (min. 0-1-8), 5=404/8-8-0 (min. 0-1-8)
Max Horz 1=234(LC 12)
Max Uplift4=-56(LC 12), 5=-204(LC 12)
Max Grav 1=147(LC 21), 4=194(LC 19), 5=505(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-286/161
WEBS 2-5=-335/313

**NOTES-** (8-11)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 4 except (jt=lb) 5=204.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
9) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
10) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
11) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard




9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT13 | Valley | 1 | 1 | Job Reference (optional) **# 28669** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:41 2021 Page 1
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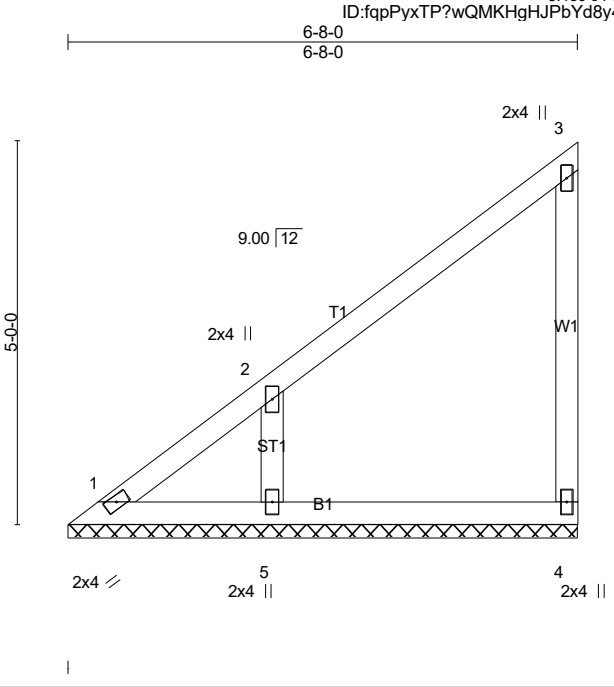



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.19 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.20 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.00 | | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 30 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.3 |
| WEBS | 2x4 SP No.3 |
| OTHERS | 2x4 SP No.3 |

**BRACING-**

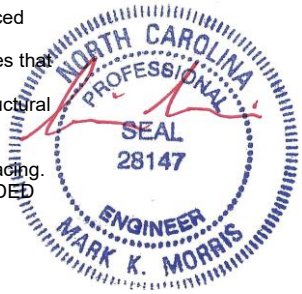
| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=39/6-8-0 (min. 0-1-8), 4=125/6-8-0 (min. 0-1-8), 5=322/6-8-0 (min. 0-1-8)
Max Horz 1=176(LC 12)
Max Uplift 1=-17(LC 10), 4=-63(LC 12), 5=-162(LC 12)
Max Grav 1=112(LC 12), 4=135(LC 19), 5=348(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-275/146
WEBS 2-5=-267/288

**NOTES-** (8-11)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=162.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
9) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
10) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
11) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

9/28/2021

| Job | Truss | Truss Type | Qty | Ply | LOT 1108 ANDERSON CREEK \| TBD SCHOLAR DRIVE SPRING LAKE, NC |
|---|---|---|---|---|---|
| 21-5763-R01 | VT14 | Valley | 1 | 1 | Job Reference (optional) **# 28669** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 30 14:15:42 2021 Page 1
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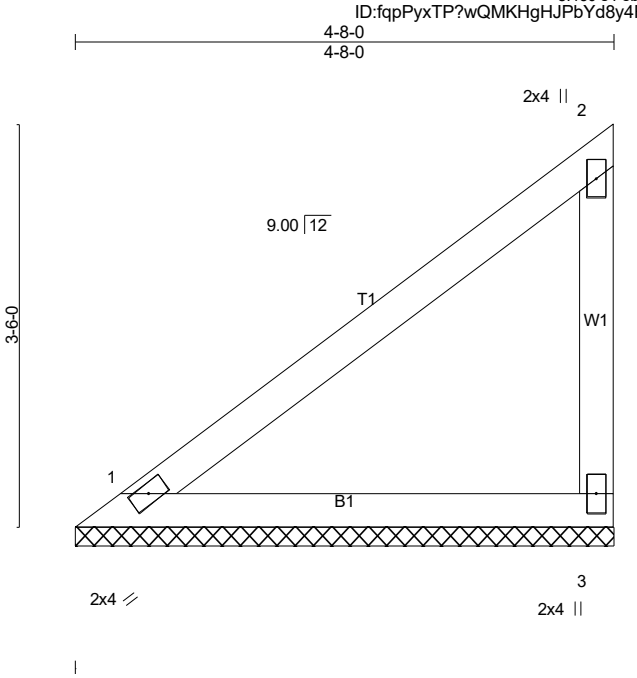



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.32 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.25 | BC | 0.34 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 19 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 4-8-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

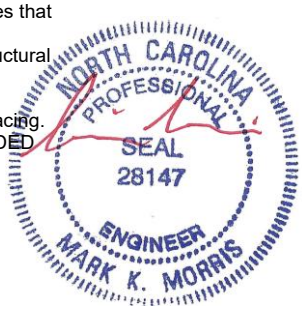
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=163/4-8-0 (min. 0-1-8), 3=163/4-8-0 (min. 0-1-8)
Max Horz 1=118(LC 12)
Max Uplift3=-82(LC 12)
Max Grav 1=163(LC 1), 3=176(LC 19)

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

**NOTES-** (8-11)
1) Wind: ASCE 7-16; Vult=135mph (3-second gust) Vasd=107mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
9) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
10) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
11) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard




*9/28/2021*