ENGINEERING BY TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 3466725
CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Stock Building Supply.

Pages or sheets covered by this seal: T30100011 thru T30100039

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844


March 21,2023

Velez, Joaquin

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

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | A1 | Piggyback Base Supported Gable | 1 | 1 | T30100011 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:50 Page: 1
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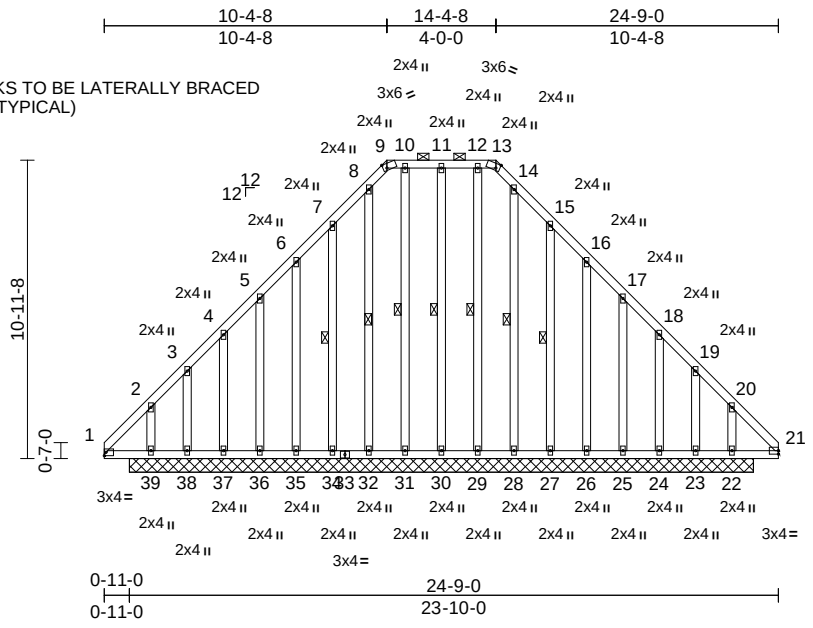



Scale = 1:84.6

Plate Offsets (X, Y): [9:0-1-11,Edge], [13:0-1-11,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.13 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 8.3/20.0 | Lumber DOL | 1.15 | BC | 0.21 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.09 | Horiz(TL) | 0.00 | 22 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 253 lb | FT = 20% |

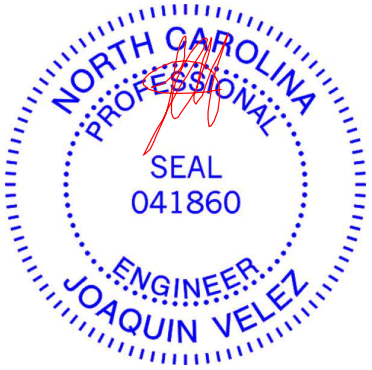
**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 9-13.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 7-34, 8-32, 10-31, 11-30, 12-29, 14-28, 15-27

**REACTIONS** (size) 22=22-11-0, 23=22-11-0, 24=22-11-0, 25=22-11-0, 26=22-11-0, 27=22-11-0, 28=22-11-0, 29=22-11-0, 30=22-11-0, 31=22-11-0, 32=22-11-0, 34=22-11-0, 35=22-11-0, 36=22-11-0, 37=22-11-0, 38=22-11-0, 39=22-11-0
Max Horiz 39=-206 (LC 10)
Max Uplift 22=-202 (LC 11), 23=-230 (LC 10), 24=-36 (LC 14), 25=-57 (LC 15), 26=-48 (LC 15), 27=-68 (LC 15), 30=-17 (LC 10), 34=-68 (LC 14), 35=-48 (LC 14), 36=-57 (LC 14), 37=-38 (LC 15), 38=-243 (LC 11), 39=-219 (LC 10)
Max Grav 22=324 (LC 25), 23=273 (LC 13), 24=121 (LC 30), 25=122 (LC 26), 26=113 (LC 26), 27=115 (LC 26), 28=147 (LC 27), 29=160 (LC 27), 30=105 (LC 1), 31=161 (LC 28), 32=148 (LC 28), 34=115 (LC 25), 35=113 (LC 25), 36=122 (LC 25), 37=121 (LC 26), 38=286 (LC 12), 39=337 (LC 26)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-110/155, 2-3=-153/189, 3-4=-78/146, 4-5=-95/183, 5-6=-139/215, 6-7=-185/248, 7-8=-241/304, 8-9=-207/255, 9-10=-188/241, 10-11=-188/241, 11-12=-188/241, 12-13=-188/241, 13-14=-207/255, 14-15=-241/304, 15-16=-185/242, 16-17=-139/209, 17-18=-95/178, 18-19=-70/141, 19-20=-141/177, 20-21=-105/151
BOT CHORD 1-39=-122/109, 38-39=-118/107, 37-38=-118/107, 36-37=-118/107, 35-36=-118/107, 34-35=-118/107, 32-34=-118/107, 31-32=-118/107, 30-31=-118/107, 29-30=-118/107, 28-29=-118/107, 27-28=-118/107, 26-27=-118/107, 25-26=-118/107, 24-25=-118/107, 23-24=-118/107, 22-23=-118/107, 21-22=-118/107
WEBS 2-39=-152/83, 3-38=-136/128, 4-37=-89/59, 5-36=-89/65, 6-35=-91/66, 7-34=-106/83, 8-32=-122/20, 10-31=-135/63, 11-30=-79/47, 12-29=-133/63, 14-28=-120/20, 15-27=-106/84, 16-26=-91/66, 17-25=-89/65, 18-24=-89/59, 19-23=-132/124, 20-22=-147/79

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=8.3 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Provide adequate drainage to prevent water ponding.
7) Gable studs spaced at 1-4-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

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Continued on page 2



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10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 219 lb uplift at joint 39, 243 lb uplift at joint 38, 38 lb uplift at joint 37, 57 lb uplift at joint 36, 48 lb uplift at joint 35, 68 lb uplift at joint 34, 17 lb uplift at joint 30, 68 lb uplift at joint 27, 48 lb uplift at joint 26, 57 lb uplift at joint 25, 36 lb uplift at joint 24, 230 lb uplift at joint 23 and 202 lb uplift at joint 22.
11) N/A
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 1-9=-37, 9-13=-60, 13-21=-37, 21-40=-20

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | A2 | Piggyback Base | 3 | 1 | T30100012 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:53 Page: 1

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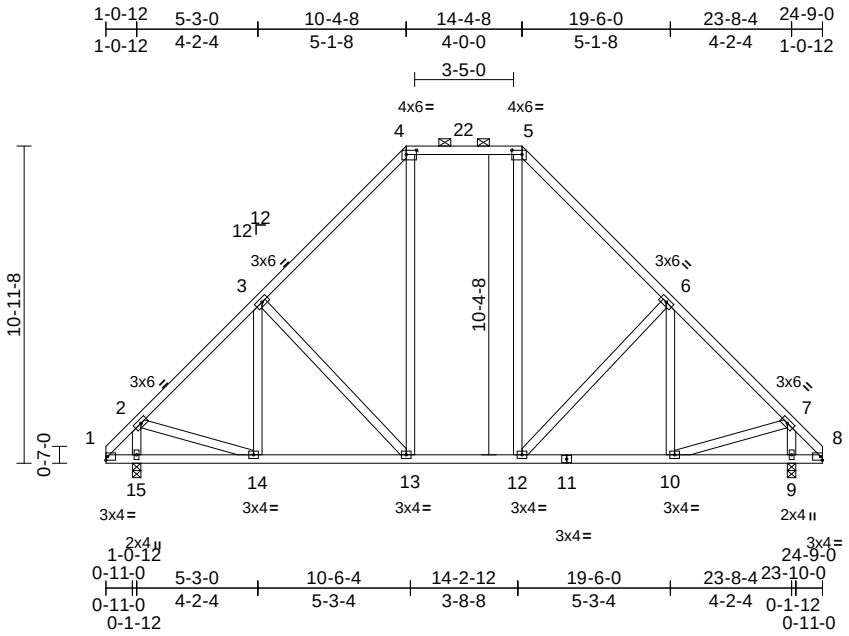


Scale = 1:79.6

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.34 | Vert(LL) | 0.13 | 13-14 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 8.3/20.0 | Lumber DOL | 1.15 | BC | 0.48 | Vert(CT) | -0.15 | 13-14 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.27 | Horz(CT) | 0.01 | 9 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 171 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 5-11-1 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 9=0-3-8, 15=0-3-8
Max Horiz 15=202 (LC 11)
Max Uplift 9=-8 (LC 15), 15=-8 (LC 14)
Max Grav 9=990 (LC 2), 15=990 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-51/25, 2-3=-904/98, 3-4=-784/184, 4-5=-478/182, 5-6=-784/184, 6-7=-904/98, 7-8=-49/25
BOT CHORD 1-15=-14/44, 14-15=-182/209, 13-14=-81/671, 12-13=-6/510, 10-12=0/586, 9-10=-12/42, 8-9=-12/42
WEBS 3-14=-102/79, 3-13=-244/185, 4-13=-42/270, 5-12=-42/270, 6-12=-244/185, 6-10=-102/79, 2-15=-904/125, 2-14=0/576, 7-9=-904/125, 7-10=0/576

**NOTES**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) ** TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=8.3 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 15 and 8 lb uplift at joint 9.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 1-4=-37, 4-5=-60, 5-8=-37, 16-19=-20


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| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | A3 | Piggyback Base | 5 | 1 | T30100013<br>Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:54 Page: 1
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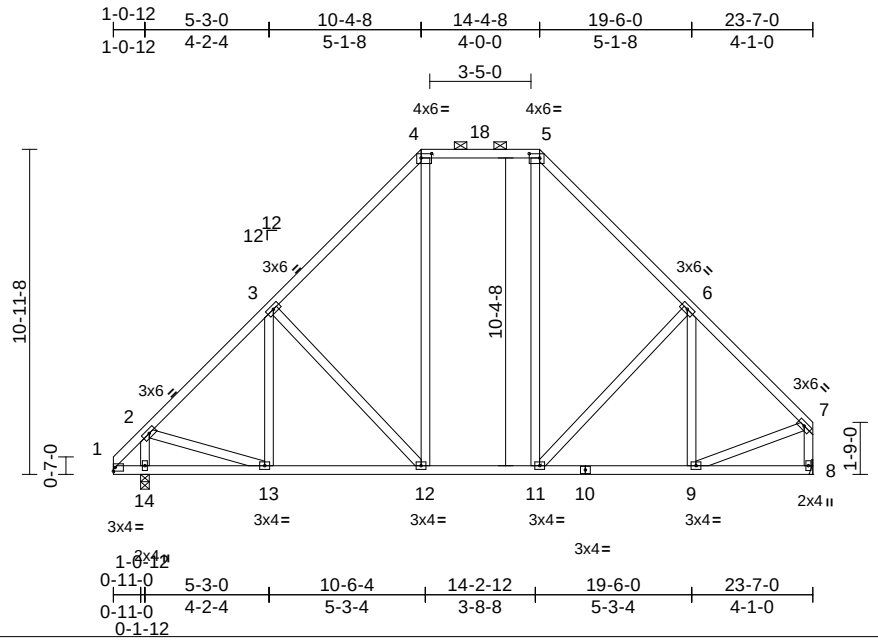



Scale = 1:77.7

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.34 | Vert(LL) | 0.13 | 12-13 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 8.3/20.0 | Lumber DOL | 1.15 | BC | 0.50 | Vert(CT) | -0.16 | 12-13 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.27 | Horz(CT) | 0.01 | 8 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 167 lb | FT = 20% |

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

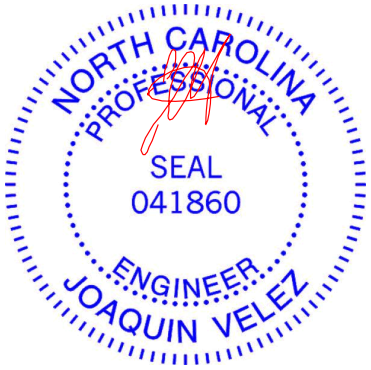
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 5-11-5 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 8= Mechanical, 14=0-3-8
Max Horiz 14=220 (LC 13)
Max Uplift 8=-2 (LC 15), 14=-8 (LC 14)
Max Grav 8=893 (LC 2), 14=982 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-50/26, 2-3=-896/98, 3-4=-773/185, 4-5=-471/182, 5-6=-772/185, 6-7=-854/98, 7-8=-858/74
BOT CHORD 1-14=-13/43, 13-14=-198/208, 12-13=-97/666, 11-12=-23/502, 9-11=-28/559, 8-9=-19/39
WEBS 3-13=-97/80, 3-12=-249/185, 4-12=-42/266, 5-11=-42/260, 6-11=-223/178, 6-9=-137/80, 7-9=-9/572, 2-14=-899/125, 2-13=0/572

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) ** TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=8.3 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 8 and 8 lb uplift at joint 14.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-4=-37, 4-5=-60, 5-7=-37, 8-15=-20

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| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | A4 | Piggyback Base | 6 | 1 | T30100014 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:54 Page: 1
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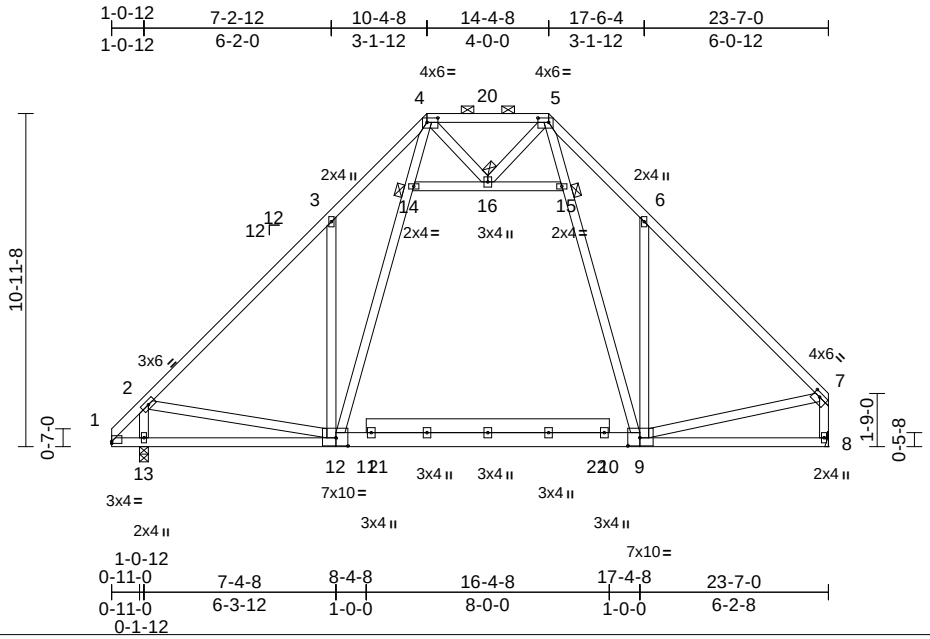


Scale = 1:75.8

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.46 | Vert(LL) | 0.07 | 12-13 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 8.3/20.0 | Lumber DOL | 1.15 | BC | 0.35 | Vert(CT) | -0.10 | 9-12 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.55 | Horz(CT) | 0.01 | 8 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 200 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 9-12,10-11:2x6 SP No.2
WEBS 2x4 SP No.3

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 5-1-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 14, 15, 16

**REACTIONS** (size) 8= Mechanical, 13=0-3-8
Max Horiz 13=220 (LC 13)
Max Uplift 8=-2 (LC 15), 13=-8 (LC 14)
Max Grav 8=893 (LC 2), 13=982 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-126/102, 2-3=-938/113, 3-4=-933/304, 4-5=-461/192, 5-6=-924/308, 6-7=-912/108, 7-8=-844/86
BOT CHORD 1-13=-72/163, 8-13=-242/495
WEBS 12-14=-210/585, 4-14=-201/572, 3-12=-367/274, 5-15=-197/554, 9-15=-206/565, 6-9=-379/285, 7-9=0/553, 2-13=-910/209, 2-12=-7/512, 14-16=-42/52, 15-16=-42/49, 4-16=-68/66, 5-16=-66/69

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) ** TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=8.3 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 8 and 8 lb uplift at joint 13.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-4=-37, 4-5=-60, 5-7=-37, 8-17=-20


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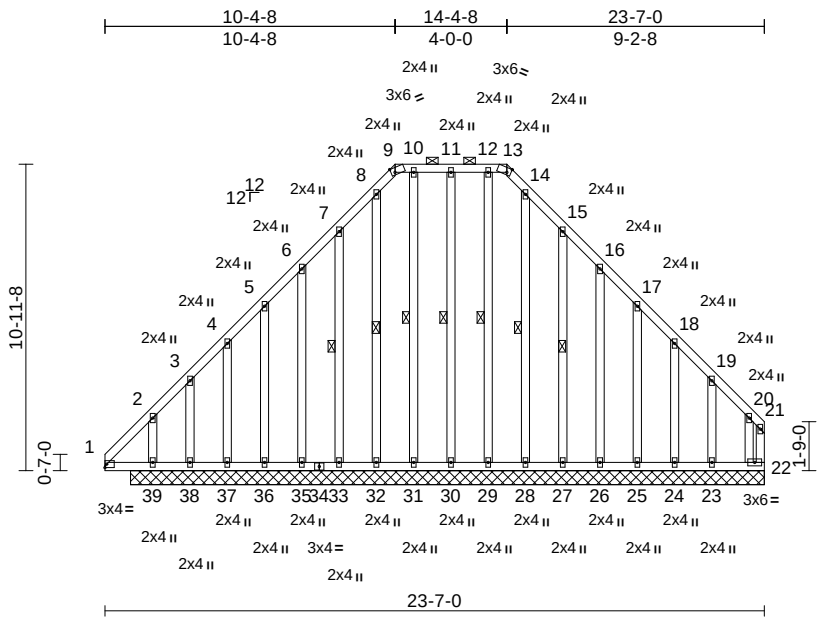
| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | A5 | Piggyback Base Supported Gable | 1 | 1 | T30100015<br>Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:55 Page: 1
ID:?MbvTsp_kwoB7R9clpEMBYzaKD5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




Scale = 1:82.4

Plate Offsets (X, Y): [9:0-1-11,Edge], [13:0-1-11,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.22 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 8.3/20.0 | Lumber DOL | 1.15 | BC | 0.17 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.12 | Horiz(TL) | -0.01 | 22 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 251 lb | FT = 20% |

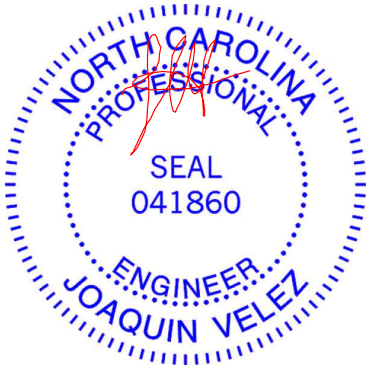
**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 9-13.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 7-33, 8-32, 10-31, 11-30, 12-29, 14-28, 15-27

**REACTIONS** (size) 22=22-8-0, 23=22-8-0, 24=22-8-0, 25=22-8-0, 26=22-8-0, 27=22-8-0, 28=22-8-0, 29=22-8-0, 30=22-8-0, 31=22-8-0, 32=22-8-0, 33=22-8-0, 35=22-8-0, 36=22-8-0, 37=22-8-0, 38=22-8-0, 39=22-8-0
Max Horiz 39=220 (LC 13)
Max Uplift 22=-229 (LC 13), 23=-204 (LC 10), 24=-38 (LC 14), 25=-54 (LC 15), 26=-49 (LC 15), 27=-66 (LC 15), 30=-19 (LC 11), 33=-69 (LC 14), 35=-49 (LC 14), 36=-56 (LC 14), 37=-22 (LC 15), 38=-195 (LC 11), 39=-133 (LC 10)
Max Grav 22=244 (LC 10), 23=320 (LC 26), 24=100 (LC 25), 25=126 (LC 26), 26=113 (LC 26), 27=115 (LC 26), 28=145 (LC 27), 29=158 (LC 27), 30=107 (LC 30), 31=153 (LC 27), 32=129 (LC 28), 33=118 (LC 25), 35=115 (LC 25), 36=118 (LC 25), 37=125 (LC 2), 38=208 (LC 12), 39=326 (LC 26)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-86/114, 2-3=-119/123, 3-4=-62/106, 4-5=-107/140, 5-6=-151/184, 6-7=-197/239, 7-8=-254/306, 8-9=-216/256, 9-10=-197/242, 10-11=-197/242, 11-12=-197/242, 12-13=-197/242, 13-14=-216/256, 14-15=-254/306, 15-16=-197/260, 16-17=-151/226, 17-18=-114/196, 18-19=-108/153, 19-20=-215/250, 20-21=-121/103, 21-22=-208/176
BOT CHORD 1-39=-87/89, 38-39=-152/136, 37-38=-152/136, 36-37=-152/136, 35-36=-152/136, 33-35=-152/136, 32-33=-152/136, 31-32=-152/136, 30-31=-152/136, 29-30=-152/136, 28-29=-152/136, 27-28=-152/136, 26-27=-152/136, 25-26=-152/136, 24-25=-152/136, 23-24=-152/136, 22-23=-152/136
WEBS 2-39=-148/62, 3-38=-107/117, 4-37=-91/59, 5-36=-89/65, 6-35=-91/66, 7-33=-107/84, 8-32=-103/24, 10-31=-126/68, 11-30=-80/47, 12-29=-131/68, 14-28=-118/24, 15-27=-107/81, 16-26=-91/66, 17-25=-93/67, 18-24=-79/51, 19-23=-233/172, 20-22=-381/417

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=8.3 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Provide adequate drainage to prevent water ponding.
7) Gable studs spaced at 1-4-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

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Continued on page 2



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10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 229 lb uplift at joint 22, 133 lb uplift at joint 39, 195 lb uplift at joint 38, 22 lb uplift at joint 37, 56 lb uplift at joint 36, 49 lb uplift at joint 35, 69 lb uplift at joint 33, 19 lb uplift at joint 30, 66 lb uplift at joint 27, 49 lb uplift at joint 26, 54 lb uplift at joint 25, 38 lb uplift at joint 24 and 204 lb uplift at joint 23.
11) N/A
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 1-9=-37, 9-13=-60, 13-21=-37, 22-40=-20

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | B1 | Common Structural Gable | 1 | 1 | T30100016 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:55 Page: 1
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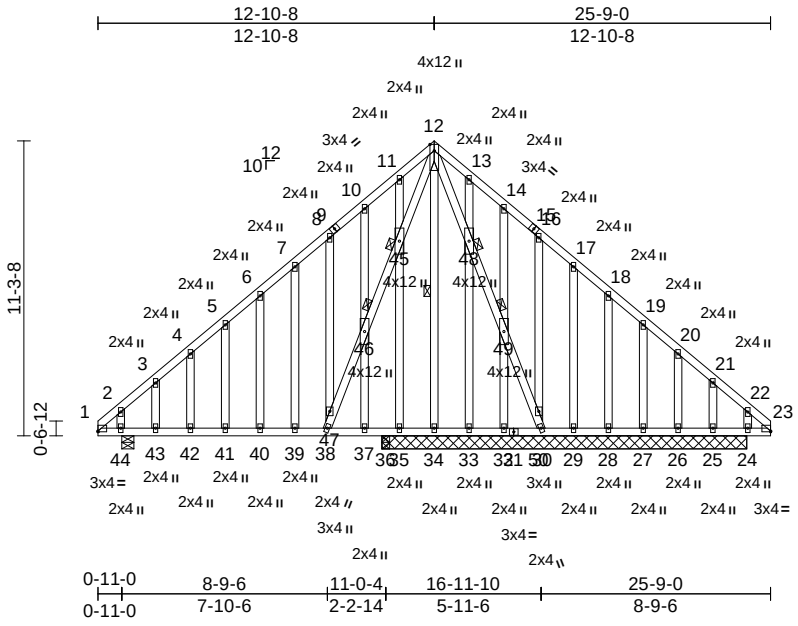


Scale = 1:88.2

Plate Offsets (X, Y): [1:Edge,0-0-6], [23:Edge,0-0-6]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.33 | Vert(LL) | 0.13 | 41-42 | >919 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.55 | Vert(CT) | -0.19 | 41 | >649 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.39 | Horz(CT) | 0.01 | 24 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 276 lb | FT = 20% |

**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 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 12-34
JOINTS 1 Brace at Jt(s): 45, 46, 48, 49

**REACTIONS** (size) 24=13-11-8, 25=13-11-8, 26=13-11-8, 27=13-11-8, 28=13-11-8, 29=13-11-8, 30=13-11-8, 32=13-11-8, 33=13-11-8, 34=13-11-8, 35=13-11-8, 36=0-3-8, 44=0-5-8
Max Horiz 44=205 (LC 11)
Max Uplift 24=-102 (LC 11), 25=-121 (LC 10), 26=-19 (LC 14), 27=-41 (LC 15), 28=-34 (LC 15), 29=-40 (LC 15), 30=-100 (LC 14), 32=-46 (LC 15), 33=-9 (LC 10), 35=-25 (LC 11), 36=-128 (LC 25), 44=-143 (LC 14)
Max Grav 24=268 (LC 25), 25=151 (LC 13), 26=120 (LC 2), 27=113 (LC 26), 28=111 (LC 26), 29=114 (LC 26), 30=389 (LC 25), 32=120 (LC 26), 33=124 (LC 26), 34=256 (LC 27), 35=52 (LC 25), 36=116 (LC 14), 44=660 (LC 2)

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

TOP CHORD 1-2=-355/57, 2-3=-523/129, 3-4=-500/162, 4-5=-503/194, 5-6=-510/227, 6-7=-503/255, 7-8=-546/302, 8-10=-683/386, 10-11=-677/411, 11-12=-693/428, 12-13=-301/307, 13-14=-295/306, 14-16=-263/265, 16-17=-231/224, 17-18=-194/189, 18-19=-161/164, 19-20=-126/140, 20-21=-116/113, 21-22=-160/119, 22-23=-113/87
BOT CHORD 1-44=-44/328, 43-44=-170/453, 42-43=-170/453, 41-42=-170/453, 40-41=-170/453, 39-40=-170/453, 38-39=-170/453, 37-38=-121/220, 36-37=-121/220, 35-36=-121/220, 34-35=-121/220, 33-34=-123/217, 32-33=-123/217, 30-32=-123/217, 29-30=-77/107, 28-29=-77/107, 27-28=-77/107, 26-27=-77/107, 25-26=-77/107, 24-25=-77/107, 23-24=-77/107
WEBS 12-48=-307/114, 48-49=-340/127, 49-50=-335/130, 30-50=-382/121, 38-47=-163/456, 46-47=-276/688, 45-46=-249/627, 12-45=-307/752, 12-34=-227/0, 11-45=-85/12, 35-45=-51/77, 10-46=-20/29, 37-46=-80/54, 8-47=-249/121, 7-39=-103/64, 6-40=-16/28, 5-41=-40/38, 4-42=-34/36, 3-43=-43/39, 2-44=-303/96, 13-48=-107/4, 33-48=-98/26, 14-49=-80/54, 32-49=-91/63, 16-50=-80/51, 17-29=-89/55, 18-28=-84/51, 19-27=-86/53, 20-26=-84/47, 21-25=-97/85, 22-24=-124/51

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.


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8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint 30, 25 lb uplift at joint 35, 143 lb uplift at joint 44, 9 lb uplift at joint 33, 46 lb uplift at joint 32, 40 lb uplift at joint 29, 34 lb uplift at joint 28, 41 lb uplift at joint 27, 19 lb uplift at joint 26, 121 lb uplift at joint 25, 102 lb uplift at joint 24 and 128 lb uplift at joint 36.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | B2 | Common | 3 | 1 | T30100017<br>Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:56 Page: 1
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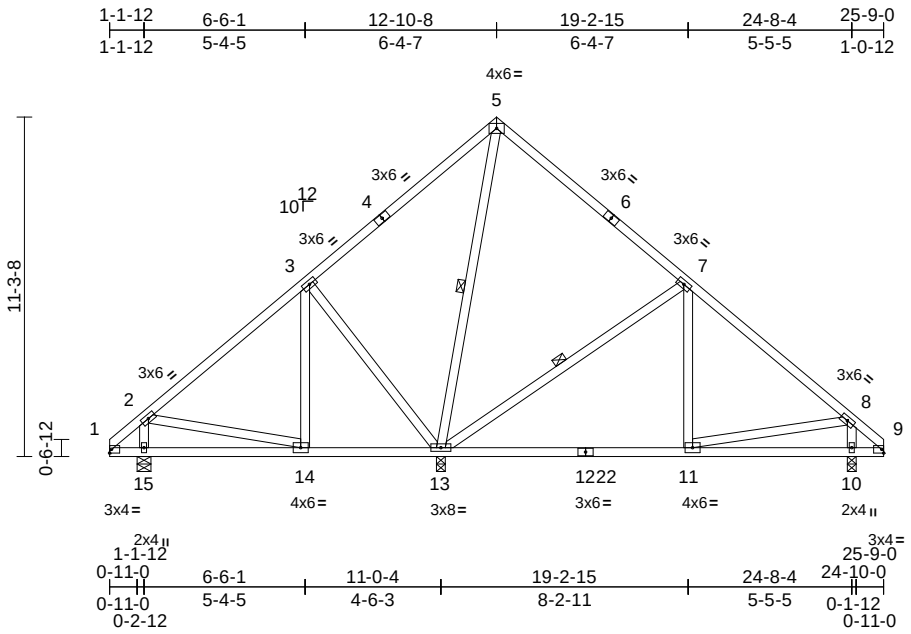



Scale = 1:76.6

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.50 | Vert(LL) | -0.09 | 11-13 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.48 | Vert(CT) | -0.19 | 11-13 | >871 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.37 | Horz(CT) | 0.01 | 10 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 164 lb | FT = 20% |

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

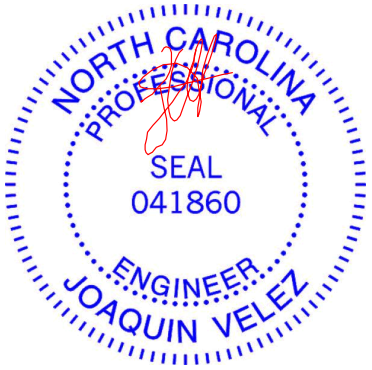
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-13, 7-13

**REACTIONS** (size) 10=0-3-8, 13=0-3-8, 15=0-5-8
Max Horiz 15=-208 (LC 10)
Max Uplift 10=-1 (LC 15), 13=-59 (LC 14)
Max Grav 10=594 (LC 2), 13=1032 (LC 2), 15=450 (LC 29)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-94/39, 2-3=-310/38, 3-5=-76/214, 5-7=-140/138, 7-8=-517/37, 8-9=-48/40
BOT CHORD 1-15=-8/74, 14-15=-193/261, 13-14=-112/239, 11-13=0/340, 10-11=-25/72, 9-10=-25/72
WEBS 5-13=-404/1, 7-13=-480/155, 7-11=0/263, 3-13=-378/183, 3-14=0/157, 2-15=-353/100, 2-14=-43/110, 8-10=-555/95, 8-11=0/305

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 13 and 1 lb uplift at joint 10.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | B3 | Common Girder | 1 | 2 | T30100018 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:57 Page: 1

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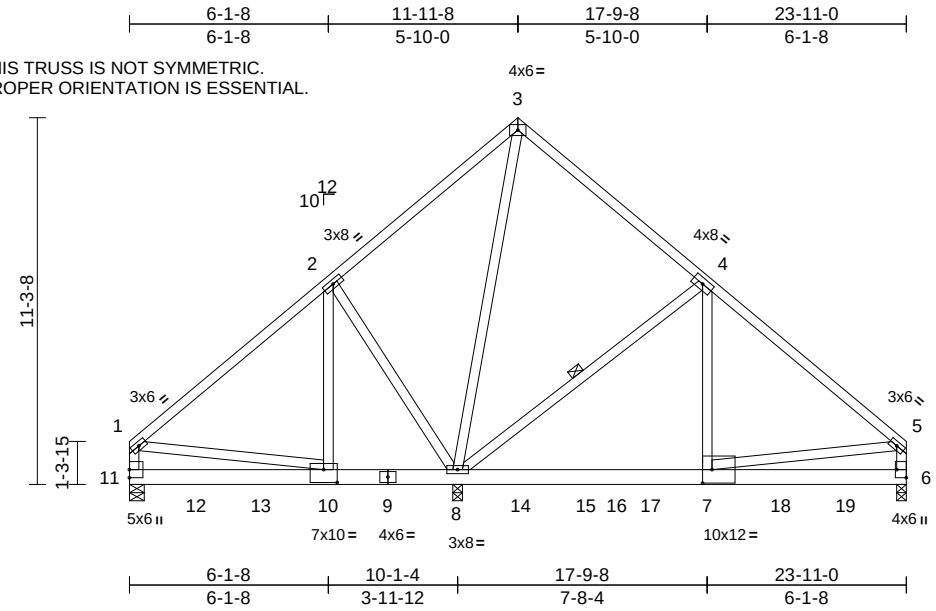



Scale = 1:70.9

Plate Offsets (X, Y): [6:Edge,0-3-8], [7:0-3-8,0-5-0], [10:0-5-0,0-4-12]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.96 | Vert(LL) | -0.09 | 7-8 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.81 | Vert(CT) | -0.18 | 7-8 | >906 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.67 | Horz(CT) | 0.01 | 6 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 358 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 9-6:2x6 SP DSS
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 4-8

**REACTIONS** (size) 6=0-3-8, 8=0-3-8, (req. 0-3-11), 11=0-5-8
Max Horiz 11=-220 (LC 29)
Max Uplift 6=-22 (LC 11), 8=-157 (LC 10)
Max Grav 6=2729 (LC 2), 8=7261 (LC 2), 11=1516 (LC 25)

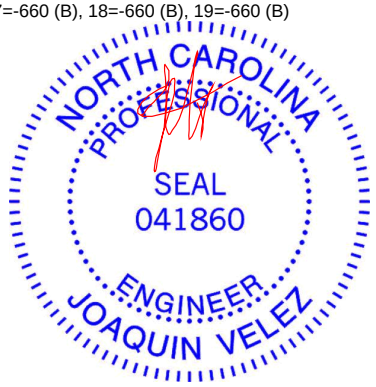
**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-824/30, 2-3=-16/784, 3-4=-32/558, 4-5=-2548/43, 1-11=-621/6, 5-6=-1980/38
BOT CHORD 10-11=-219/665, 8-10=-123/582, 7-8=0/1878, 6-7=-54/408
WEBS 3-8=-1053/0, 4-8=-2825/190, 4-7=0/3217, 2-8=-1953/201, 2-10=0/2137, 1-10=-86/125, 5-7=0/1491

**NOTES**

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Web 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) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
6) Roof design snow load has been reduced to account for slope.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) WARNING: Required bearing size at joint(s) 8 greater than input bearing size.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 157 lb uplift at joint 8 and 22 lb uplift at joint 6.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 873 lb down and 14 lb up at 2-0-12, 873 lb down and 14 lb up at 4-0-12, 873 lb down and 14 lb up at 6-0-12, 873 lb down and 14 lb up at 8-0-12, 873 lb down and 14 lb up at 10-0-12, 873 lb down and 14 lb up at 12-0-12, 873 lb down and 14 lb up at 14-0-12, 873 lb down and 14 lb up at 16-0-12, 873 lb down and 14 lb up at 18-0-12, and 873 lb down and 14 lb up at 20-0-12, and 873 lb down and 14 lb up at 22-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-3=-40, 3-5=-40, 6-11=-20
Concentrated Loads (lb)
Vert: 9=-660 (B), 8=-660 (B), 7=-660 (B), 10=-660 (B), 12=-660 (B), 13=-660 (B), 14=-660 (B), 15=-660 (B), 17=-660 (B), 18=-660 (B), 19=-660 (B)




March 21,2023



ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | C1 | Common Supported Gable | 1 | 1 | T30100019 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:58 Page: 1
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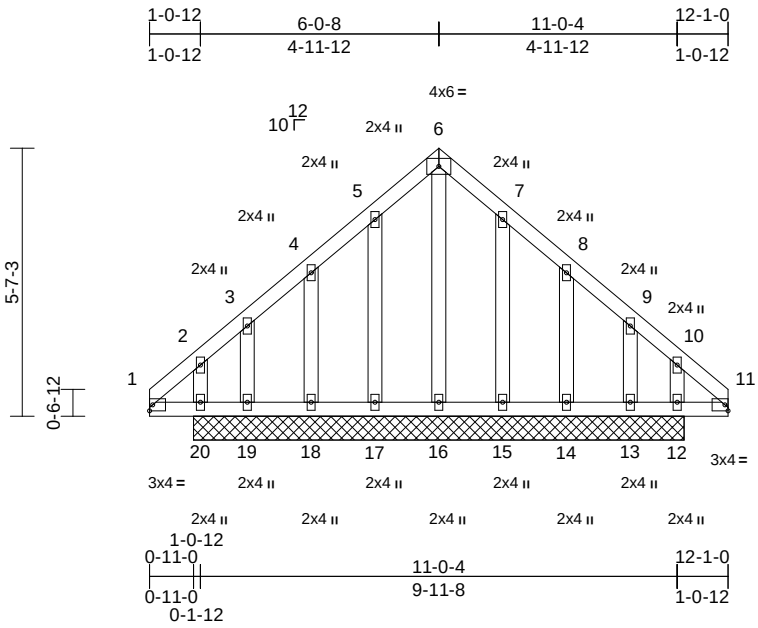


Scale = 1:48.1

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.04 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.06 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.07 | Horiz(TL) | 0.00 | 12 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 77 lb | FT = 20% |

**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 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 12=10-3-0, 13=10-3-0, 14=10-3-0, 15=10-3-0, 16=10-3-0, 17=10-3-0, 18=10-3-0, 19=10-3-0, 20=10-3-0
Max Horiz 20=97 (LC 11)
Max Uplift 12=-60 (LC 11), 13=-92 (LC 15), 14=-32 (LC 15), 15=-28 (LC 15), 17=-29 (LC 14), 18=-31 (LC 14), 19=-97 (LC 14), 20=-70 (LC 10)
Max Grav 12=166 (LC 25), 13=129 (LC 26), 14=113 (LC 30), 15=118 (LC 26), 16=158 (LC 28), 17=119 (LC 25), 18=113 (LC 29), 19=135 (LC 25), 20=174 (LC 26)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-53/77, 2-3=-66/83, 3-4=-35/80, 4-5=-73/102, 5-6=-104/126, 6-7=-104/126, 7-8=-73/98, 8-9=-34/77, 9-10=-58/77, 10-11=-48/73
BOT CHORD 1-20=-60/55, 19-20=-56/51, 18-19=-56/51, 17-18=-56/51, 16-17=-56/51, 15-16=-56/51, 14-15=-56/51, 13-14=-56/51, 12-13=-56/51, 11-12=-56/51
WEBS 6-16=-131/58, 5-17=-92/43, 4-18=-87/58, 3-19=-90/71, 7-15=-91/42, 8-14=-87/58, 9-13=-87/69, 2-20=-82/35, 10-12=-79/35

**NOTES**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 17, 31 lb uplift at joint 18, 97 lb uplift at joint 19, 28 lb uplift at joint 15, 32 lb uplift at joint 14, 92 lb uplift at joint 13, 70 lb uplift at joint 20 and 60 lb uplift at joint 12.
10) N/A
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


March 21,2023



ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | D1 | Monopitch | 1 | 1 | Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Feb 9 2023 Print: 8.630 S Feb 9 2023 MiTek Industries, Inc. Tue Mar 21 13:19:45 Page: 1

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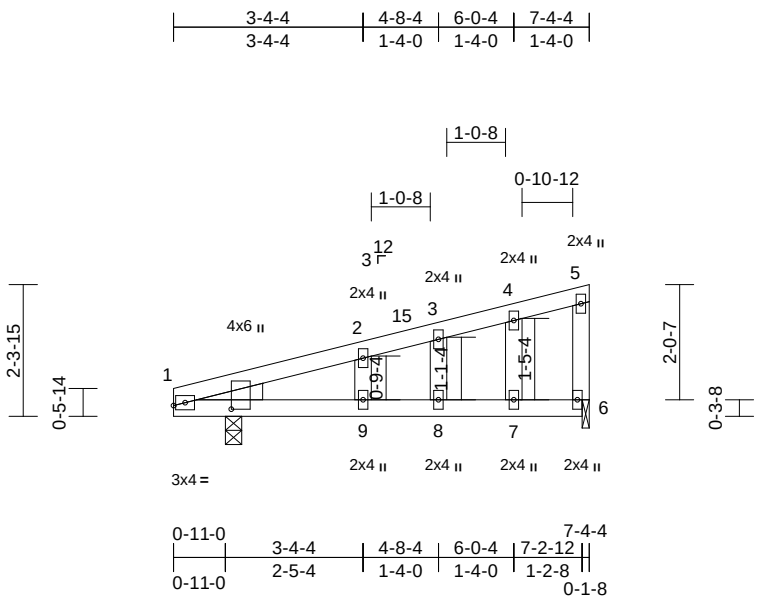


Scale = 1:40.8

Plate Offsets (X, Y): [1:0-0-7,0-0-14], [1:0-0-12,1-0-4]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.47 | Vert(LL) | -0.10 | 8-9 | >903 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | BC | 0.50 | Vert(CT) | -0.19 | 8-9 | >465 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.01 | Horz(CT) | 0.02 | 1 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 31 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Left: 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.

**REACTIONS** (lb/size) 1=319/0-3-8, 6=238/0-1-8
Max Horiz 1=61 (LC 15)
Max Uplift 1=-21 (LC 12), 6=-24 (LC 16)
Max Grav 1=330 (LC 2), 6=262 (LC 23)

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

**NOTES**

1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
6) Gable studs spaced at 0-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1 and 24 lb uplift at joint 6.
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


March 21,2023



ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | D2 | Monopitch | 9 | 1 | T30100021<br>Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:58 Page: 1
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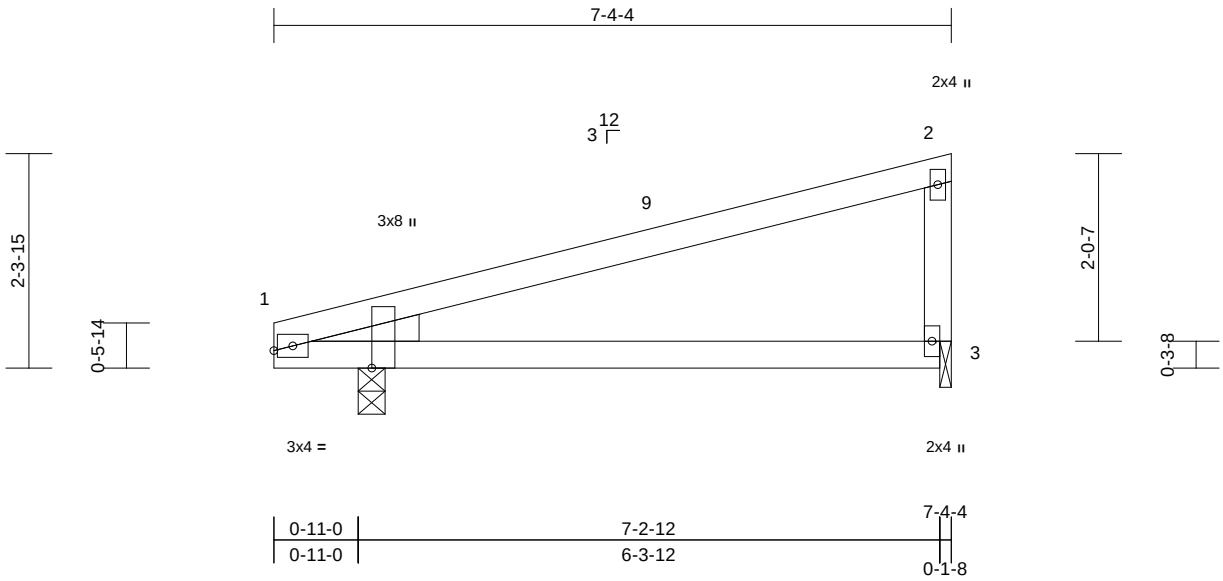



Scale = 1:25

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.64 | Vert(LL) | -0.07 | 3-8 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | BC | 0.46 | Vert(CT) | -0.16 | 3-8 | >541 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.02 | 1 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 26 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3

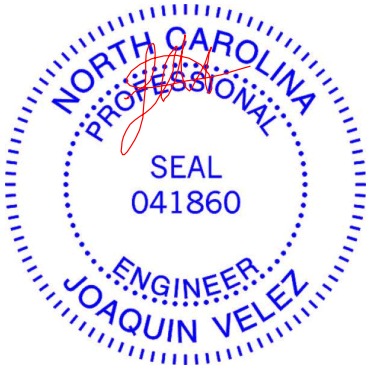
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-8, 3=0-1-8
Max Horiz 1=61 (LC 15)
Max Uplift 1=-21 (LC 12), 3=-24 (LC 16)
Max Grav 1=330 (LC 2), 3=262 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-62/45, 2-3=-180/89
BOT CHORD 1-3=-117/96

**NOTES**
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
3) Roof design snow load has been reduced to account for slope.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 3 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 at joint(s) 3.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1 and 24 lb uplift at joint 3.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard




March 21,2023



ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE T30100022 |
|---|---|---|---|---|---|
| 3466725 | D3 | Monopitch | 5 | 1 | Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:58 Page: 1
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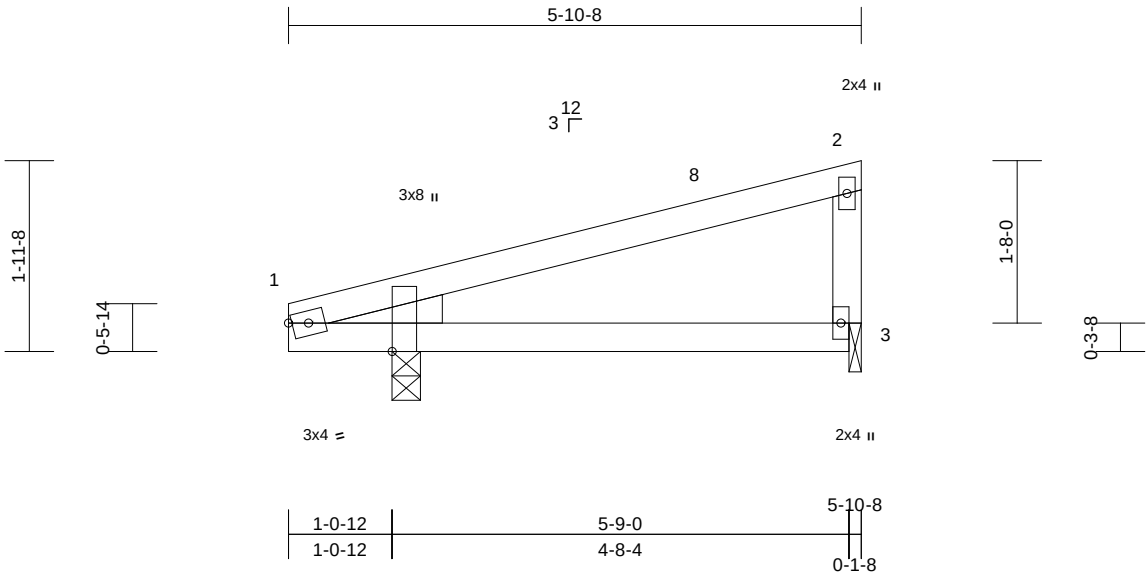


Scale = 1:23.6

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.30 | Vert(LL) | 0.04 | 3-5 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | BC | 0.22 | Vert(CT) | -0.04 | 3-5 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 21 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 2-3:2x4 SP No.2
WEDGE Left: 2x4 SP No.3

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-8, 3=0-1-8
Max Horiz 1=46 (LC 15)
Max Uplift 1=-47 (LC 12), 3=-50 (LC 12)
Max Grav 1=208 (LC 2), 3=178 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-48/47, 2-3=-121/83
BOT CHORD 1-3=-51/56

**NOTES**
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
3) Roof design snow load has been reduced to account for slope.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 3 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 at joint(s) 3.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 1 and 50 lb uplift at joint 3.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


March 21,2023



ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | D4 | Monopitch | 1 | 1 | T30100023<br>Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:59 Page: 1
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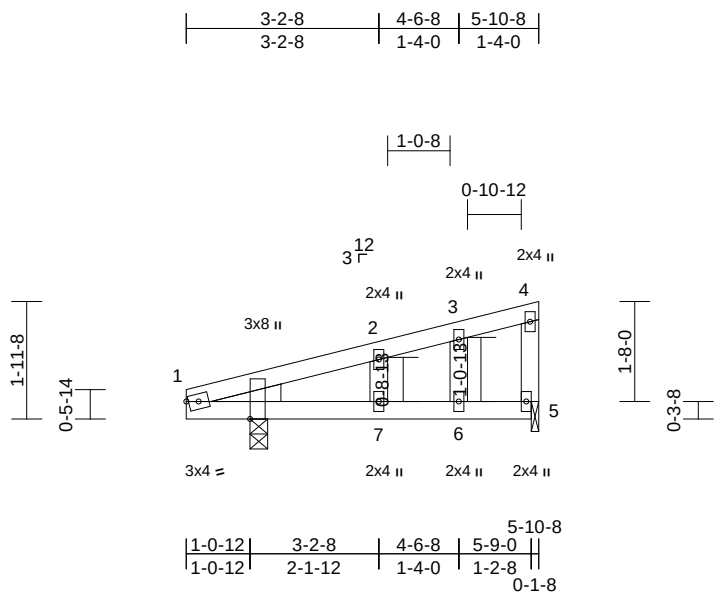



Scale = 1:38.4

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.23 | Vert(LL) | 0.04 | 6-7 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | BC | 0.25 | Vert(CT) | -0.05 | 6-7 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.01 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 24 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 4-5:2x4 SP No.2
WEDGE Left: 2x4 SP No.3

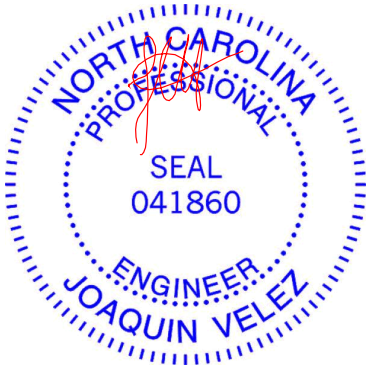
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-8, 5=0-1-8
Max Horiz 1=46 (LC 15)
Max Uplift 1=-47 (LC 12), 5=-50 (LC 12)
Max Grav 1=208 (LC 2), 5=178 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-49/29, 2-3=-43/31, 3-4=-38/33, 4-5=-97/78
BOT CHORD 1-7=-45/39, 6-7=-23/25, 5-6=-23/25
WEBS 2-7=-30/24, 3-6=-29/22

**NOTES**
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
3) Roof design snow load has been reduced to account for slope.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 1 and 50 lb uplift at joint 5.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard




March 21,2023



ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | D6 | Monopitch Supported Gable | 4 | 1 | T30100024 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:11:59 Page: 1
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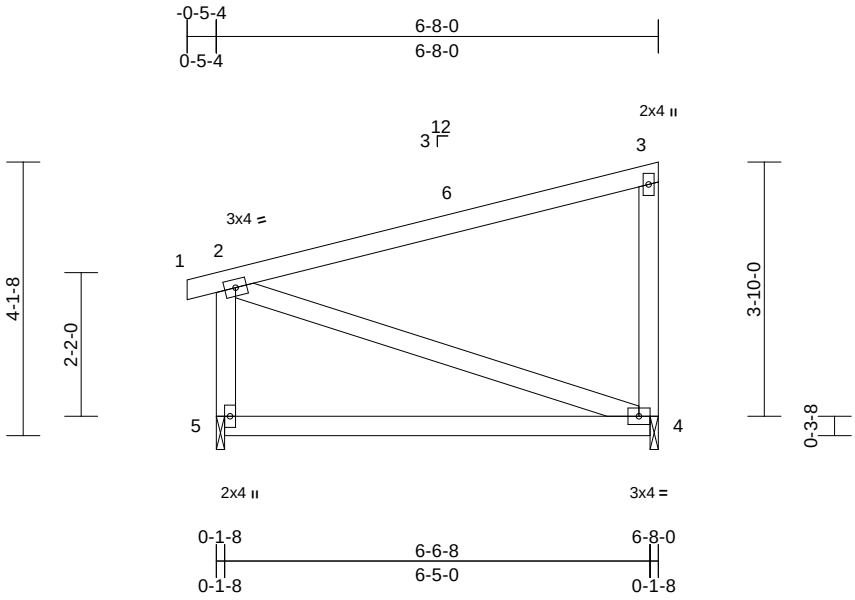



Scale = 1:34.7

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.83 | Vert(LL) | -0.10 | 4-5 | >772 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | BC | 0.53 | Vert(CT) | -0.20 | 4-5 | >386 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 38 lb | FT = 20% |

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

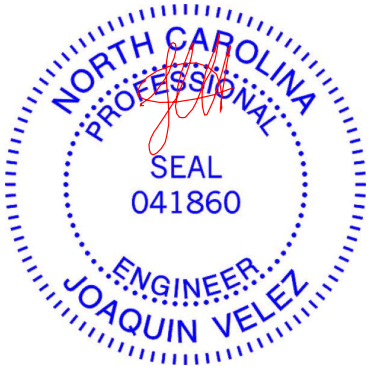
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 4=0-1-8, 5=0-1-8
Max Horiz 5=115 (LC 13)
Max Uplift 4=-23 (LC 16), 5=-35 (LC 12)
Max Grav 4=267 (LC 23), 5=292 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-228/132, 1-2=0/14, 2-3=-80/67, 3-4=-203/117
BOT CHORD 4-5=-181/139
WEBS 2-4=-104/153

**NOTES**
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
3) Roof design snow load has been reduced to account for slope.
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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Bearing at joint(s) 4, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4, 5.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 4 and 35 lb uplift at joint 5.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard




March 21,2023



ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | E1 | Common Supported Gable | 1 | 1 | T30100025 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Feb 9 2023 Print: 8.630 S Feb 9 2023 MiTek Industries, Inc. Tue Mar 21 13:21:02 Page: 1
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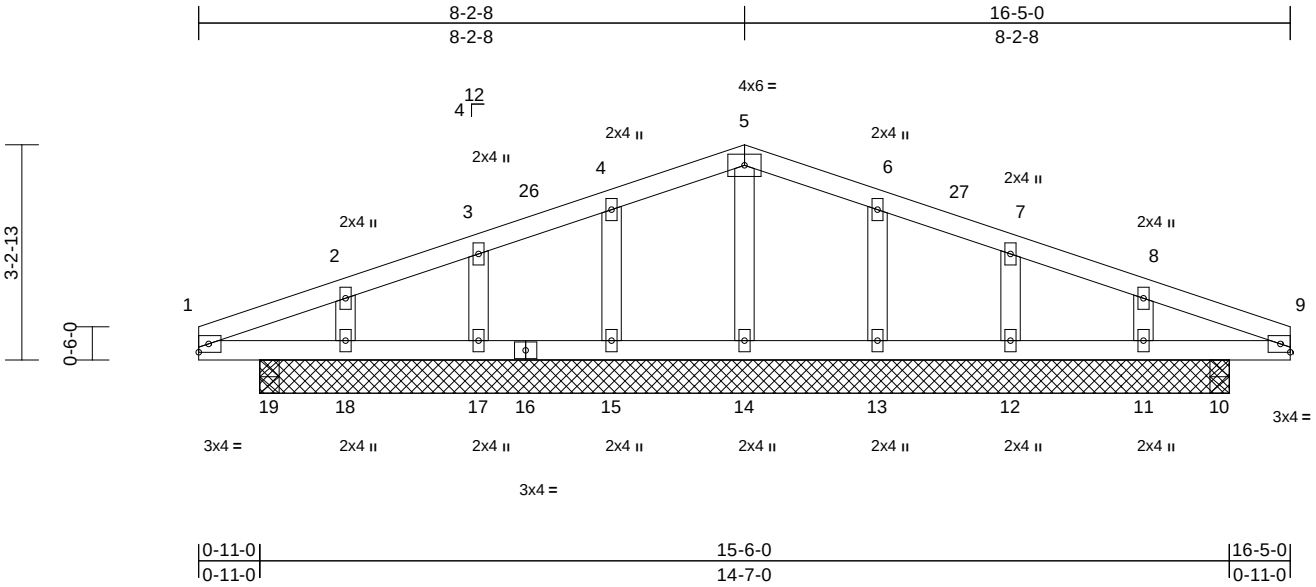


Scale = 1:34.7

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.06 | Vert(LL) | 0.00 | 10-11 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 6.8/20.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | 0.00 | 11-12 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 10 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 66 lb | FT = 20% |

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

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

**REACTIONS** All bearings 14-7-0. except 10=0-3-8, 19=0-3-8 (lb) - Max Horiz 18=-36 (LC 17)
Max Uplift All uplift 100 (lb) or less at joint(s) 10, 11, 12, 13, 15, 17, 18, 19
Max Grav All reactions 250 (lb) or less at joint (s) 10, 11, 12, 13, 14, 15, 17, 18, 19

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

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=6.8 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Unbalanced snow loads have been considered for this design.
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 17, 18, 13, 12, 11, 10, 19.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


March 21,2023



ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | E2 | Common | 1 | 1 | T30100026 |
| | | | | | Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:00 Page: 1
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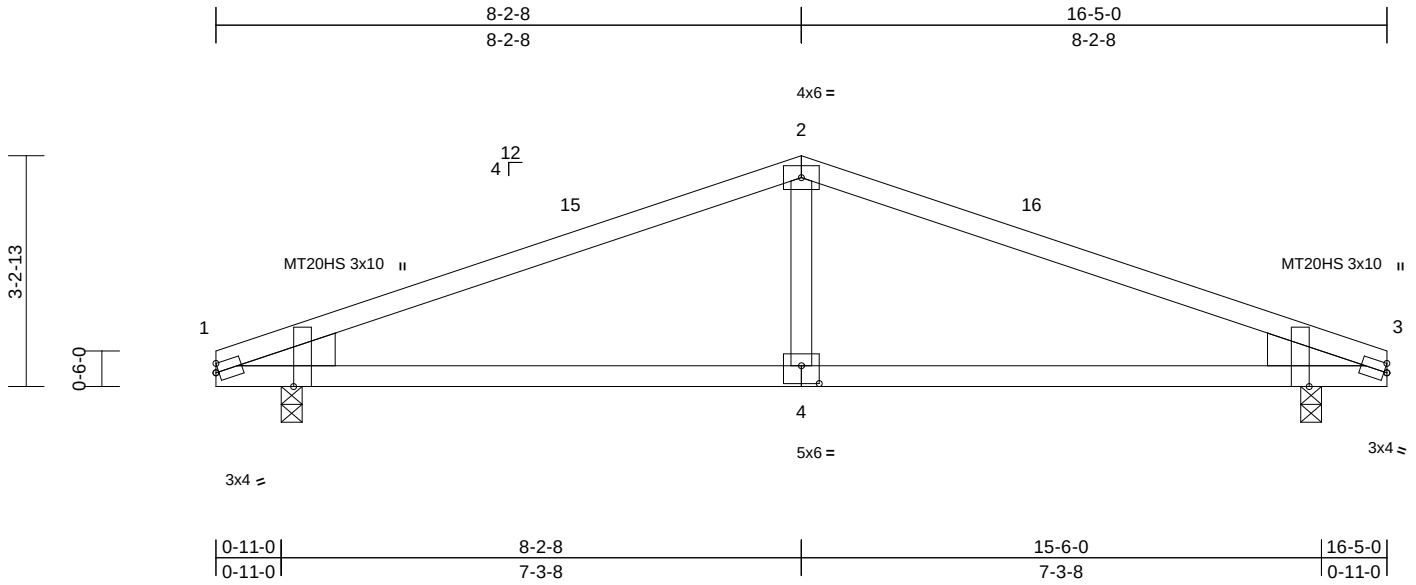


Scale = 1:32.3

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.59 | Vert(LL) | -0.07 | 4-14 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 17.2/20.0 | Lumber DOL | 1.15 | BC | 0.43 | Vert(CT) | -0.11 | 4-14 | >999 | 180 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.11 | Horz(CT) | 0.02 | 3 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 61 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 5-1-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-8, 3=0-3-8
Max Horiz 1=-36 (LC 17)
Max Uplift 1=-31 (LC 12), 3=-31 (LC 13)
Max Grav 1=657 (LC 2), 3=657 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-898/134, 2-3=-898/134
BOT CHORD 1-3=-59/790
WEBS 2-4=0/276

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=17.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1 and 31 lb uplift at joint 3.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


March 21,2023



ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | E3 | Roof Special | 3 | 1 | T30100027<br>Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:00 Page: 1
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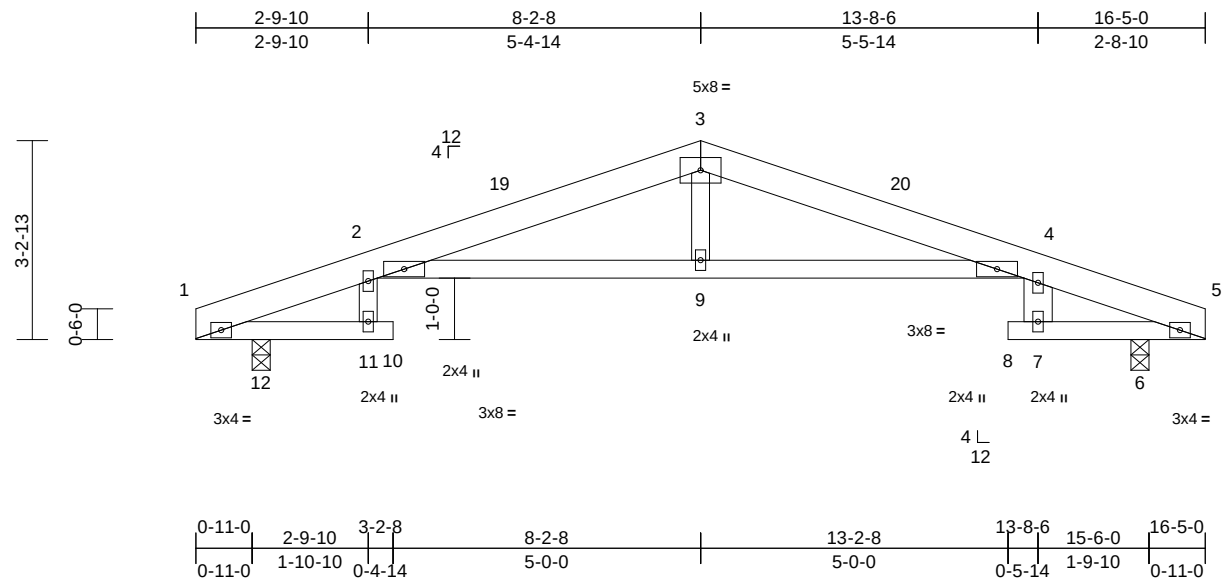


Scale = 1:37.5

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.78 | Vert(LL) | -0.15 | 2-9 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 17.2/20.0 | Lumber DOL | 1.15 | BC | 0.90 | Vert(CT) | -0.32 | 2-9 | >539 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.11 | Horz(CT) | 0.28 | 6 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 71 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 4-7:2x6 SP No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 6=0-3-8, 12=0-3-8
Max Horiz 12=-36 (LC 17)
Max Uplift 6=-42 (LC 13), 12=-43 (LC 12)
Max Grav 6=666 (LC 2), 12=665 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-184/41, 2-3=-1376/142, 3-4=-1378/142, 4-5=-183/40
BOT CHORD 1-12=-36/69, 11-12=0/0, 10-11=0/0, 2-9=-66/1307, 4-9=-65/1307, 7-8=0/0, 6-7=0/0, 5-6=-5/67
WEBS 3-9=0/300, 2-11=0/53, 4-7=0/54

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=17.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 12 and 42 lb uplift at joint 6.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


March 21,2023



ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | F1 | Roof Special Structural Gable | 1 | 1 | T30100028 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:00 Page: 1

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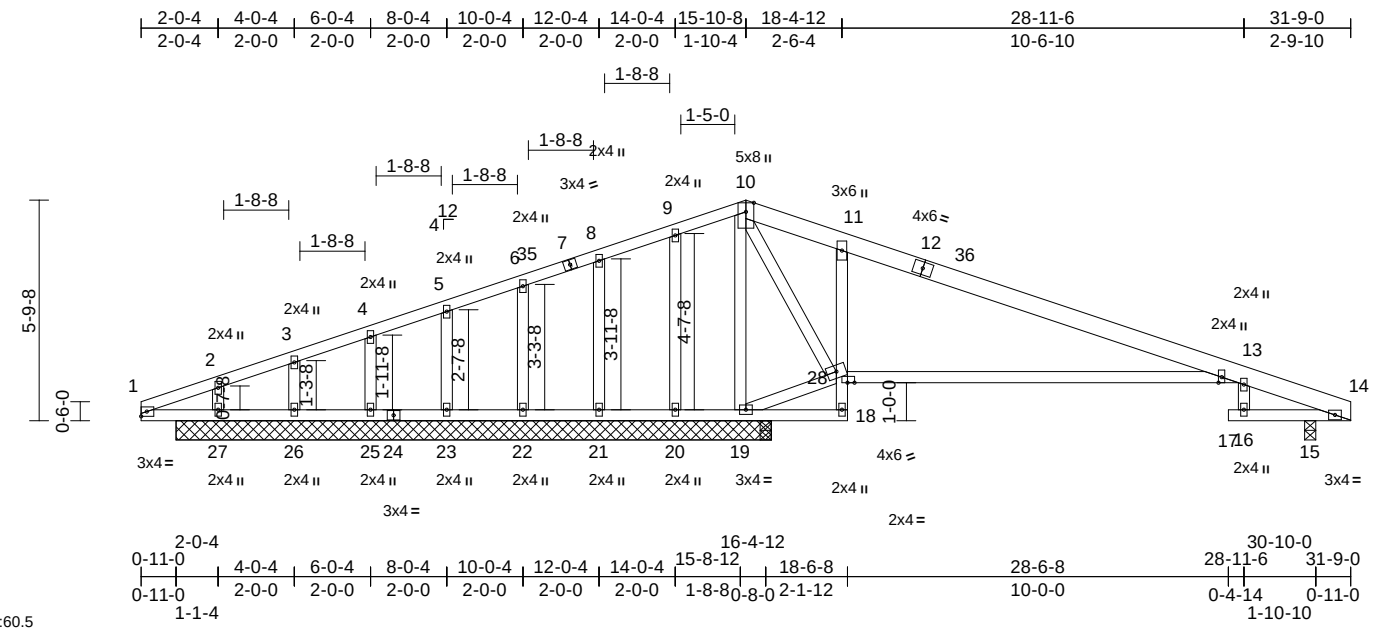


Scale = 1:60.5

Plate Offsets (X, Y): [28:0-2-3,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.93 | Vert(LL) | -0.24 | 17 | >759 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 17.2/20.0 | Lumber DOL | 1.15 | BC | 0.57 | Vert(CT) | -0.36 | 17 | >494 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.38 | Horz(CT) | 0.14 | 15 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 165 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2 *Except* 10-12,12-14:2x6 SP No.2

BOT CHORD 2x4 SP No.2 *Except* 18-11:2x4 SP No.3

WEBS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 15=0-3-8, 19=15-7-8, 20=15-7-8, 21=15-7-8, 22=15-7-8, 23=15-7-8, 25=15-7-8, 26=15-7-8, 27=15-7-8

Max Horiz 27=-72 (LC 17)

Max Uplift 15=-110 (LC 13), 19=-117 (LC 13), 20=-16 (LC 12), 21=-20 (LC 16), 22=-18 (LC 16), 23=-24 (LC 12), 25=-4 (LC 16), 26=-85 (LC 12), 27=-213 (LC 34)

Max Grav 15=422 (LC 34), 19=950 (LC 23), 20=188 (LC 22), 21=201 (LC 22), 22=165 (LC 22), 23=173 (LC 2), 25=160 (LC 33), 26=350 (LC 2), 27=189 (LC 33)

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

TOP CHORD 1-2=-151/468, 2-3=-147/512, 3-4=-109/475, 4-5=-89/485, 5-6=-65/483, 6-8=-42/482, 8-9=-19/486, 9-10=0/474, 10-11=-93/195, 11-13=-40/150, 13-14=-105/54

BOT CHORD 1-27=-449/159, 26-27=-449/162, 25-26=-449/162, 23-25=-449/162, 22-23=-449/162, 21-22=-449/162, 20-21=-449/162, 19-20=-449/162, 18-19=-11/41, 18-28=-5/40, 11-28=-846/329, 16-17=0/0, 15-16=0/0, 14-15=-13/35

WEBS 10-19=-650/107, 19-28=-502/181, 10-28=-277/763, 13-16=0/45, 9-20=-179/59, 8-21=-153/48, 6-22=-127/50, 5-23=-125/53, 4-25=-120/39, 3-26=-211/95, 2-27=-131/101

**NOTES**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=17.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 19, 16 lb uplift at joint 20, 20 lb uplift at joint 21, 18 lb uplift at joint 22, 24 lb uplift at joint 23, 4 lb uplift at joint 25, 85 lb uplift at joint 26, 213 lb uplift at joint 27 and 110 lb uplift at joint 15.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


March 21,2023



ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | F2 | Roof Special | 1 | 1 | T30100029 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:01 Page: 1
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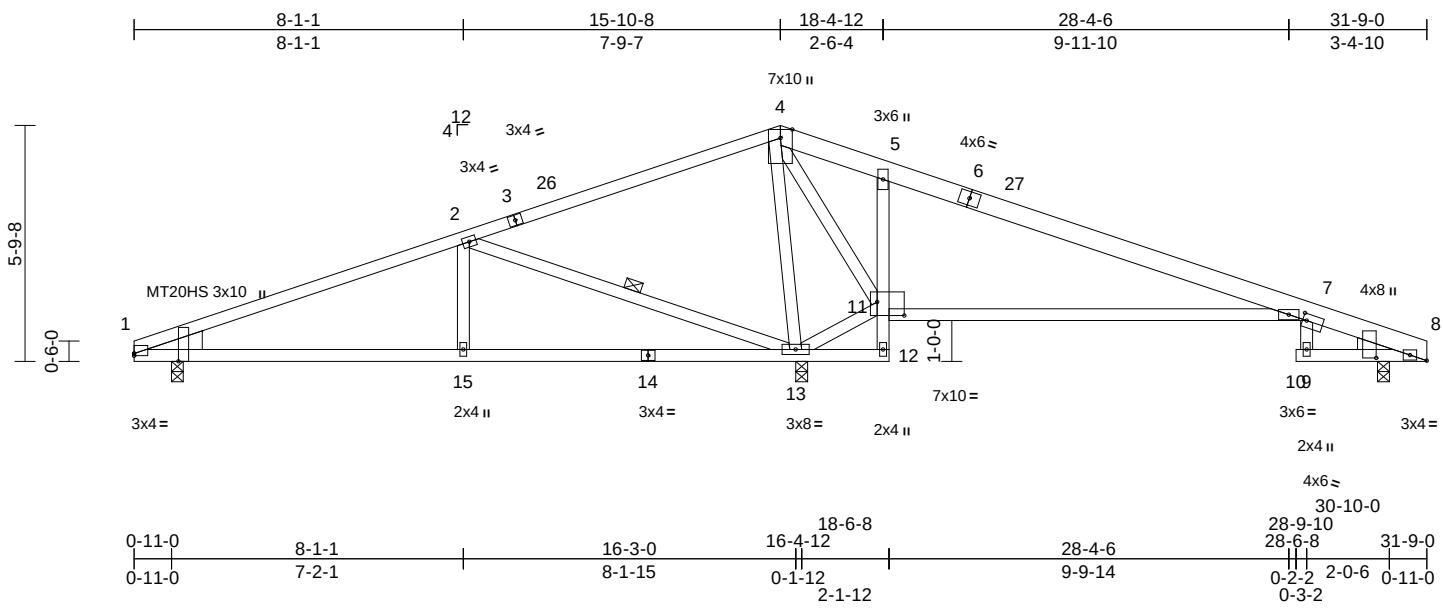



Scale = 1:56.6

Plate Offsets (X, Y): [1:Edge,0-0-10], [1:0-2-5,Edge], [7:0-2-4,0-0-4], [7:0-1-3,0-2-0], [8:0-2-15,0-0-2], [8:0-0-13,1-2-14], [11:0-8-0,0-4-0]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 1.00 | Vert(LL) | -0.34 | 7-11 | >552 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 17.2/20.0 | Lumber DOL | 1.15 | BC | 0.95 | Vert(CT) | -0.76 | 7-11 | >245 | 180 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.54 | Horz(CT) | 0.11 | 8 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 158 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2 *Except* 4-6,6-8:2x6 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 12-5:2x4 SP No.3
WEBS 2x4 SP No.3
WEDGE Left: 2x6 SP No.2
Right: 2x4 SP No.3

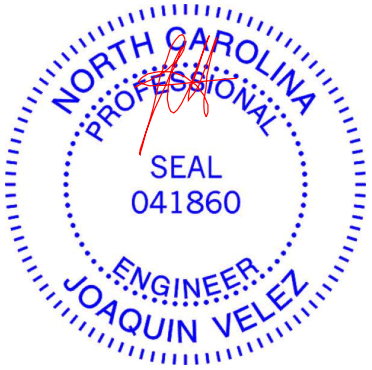
**BRACING**
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-13

**REACTIONS** (size) 1=0-3-8, 8=0-3-8, 13=0-3-8
Max Horiz 1=-72 (LC 17)
Max Uplift 1=-75 (LC 16), 8=-27 (LC 17), 13=-52 (LC 13)
Max Grav 1=458 (LC 33), 8=276 (LC 34), 13=2016 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-452/463, 2-4=-66/1158, 4-5=0/1043, 5-7=-94/1141, 7-8=-45/31
BOT CHORD 1-15=-407/383, 13-15=-407/383, 12-13=-164/0, 11-12=-69/0, 5-11=-748/221, 7-11=-961/159, 9-10=0/0, 8-9=-14/38
WEBS 2-15=0/338, 2-13=-1089/184, 4-13=-918/114, 11-13=-1167/276, 4-11=-77/303, 7-9=0/51

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=17.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 13, 75 lb uplift at joint 1 and 27 lb uplift at joint 8.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | F3 | Common | 4 | 1 | T30100030<br>Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:01 Page: 1
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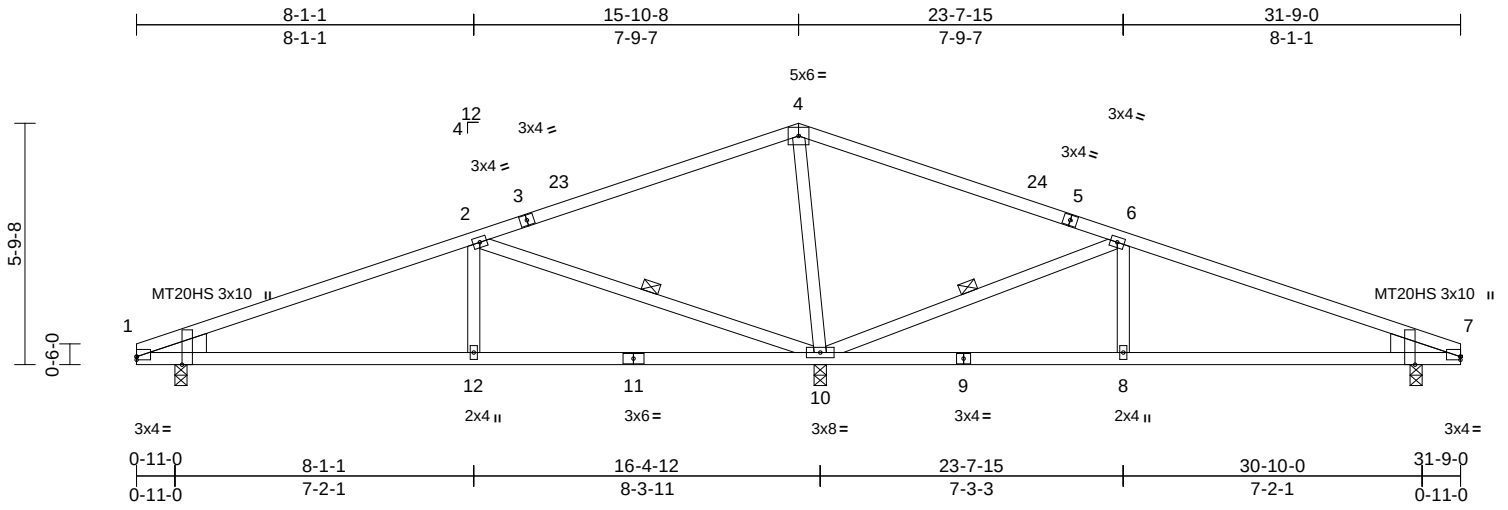


Scale = 1:55.3

Plate Offsets (X, Y): [1:Edge,0-0-14], [1:0-2-5,Edge], [7:Edge,0-0-14], [7:0-2-5,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.95 | Vert(LL) | -0.08 | 10-12 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 17.2/20.0 | Lumber DOL | 1.15 | BC | 0.55 | Vert(CT) | -0.17 | 10-12 | >999 | 180 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.42 | Horz(CT) | 0.02 | 7 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 143 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-10, 2-10

**REACTIONS** (size) 1=0-3-8, 7=0-3-8, 10=0-3-8
Max Horiz 1=-69 (LC 17)
Max Uplift 1=-50 (LC 12), 7=-56 (LC 17), 10=-18 (LC 12)
Max Grav 1=584 (LC 33), 7=541 (LC 34), 10=1491 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-771/127, 2-4=0/406, 4-6=0/474, 6-7=-656/118
BOT CHORD 1-12=-104/682, 10-12=-104/682, 8-10=-54/574, 7-8=-54/574
WEBS 4-10=-670/135, 6-10=-936/177, 6-8=0/279, 2-10=-993/169, 2-12=0/309

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=17.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 10, 50 lb uplift at joint 1 and 56 lb uplift at joint 7.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


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Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE T30100031 |
|---|---|---|---|---|---|
| 3466725 | G1 | Common Supported Gable | 1 | 1 | Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Feb 9 2023 Print: 8.630 S Feb 9 2023 MiTek Industries, Inc. Tue Mar 21 13:22:02 Page: 1
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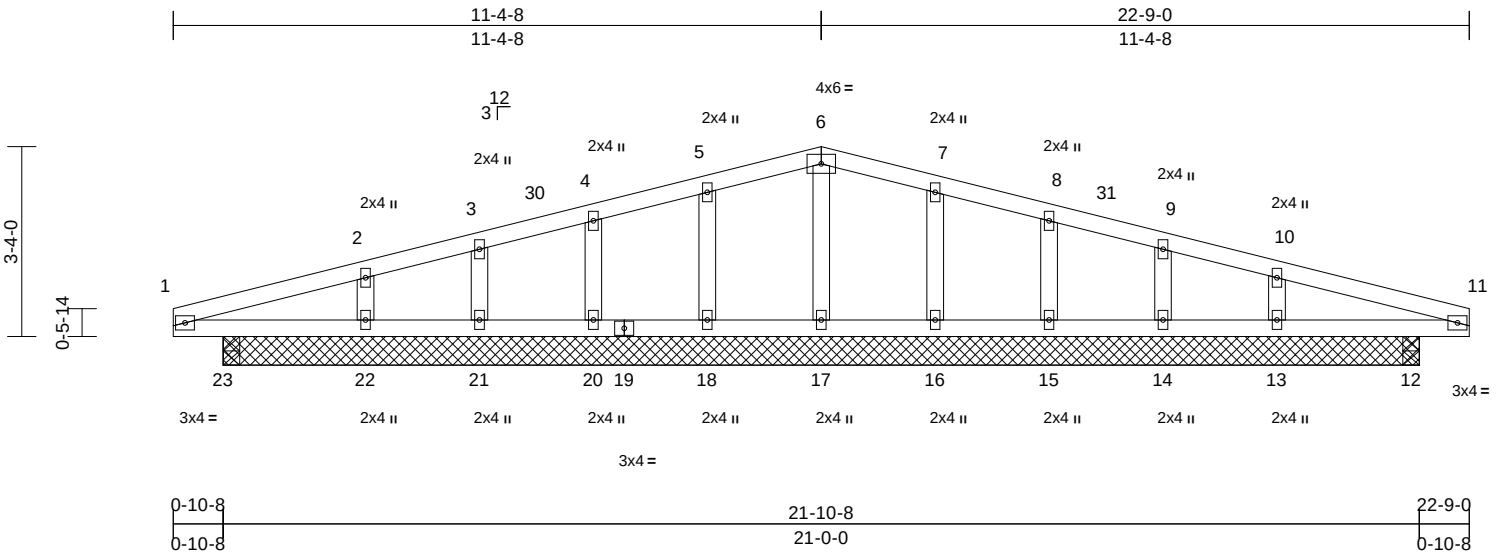



Scale = 1:40.4

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.11 | Vert(LL) | 0.00 | 12-13 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 8.1/20.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | 0.00 | 22-23 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 12 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 91 lb | FT = 20% |

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

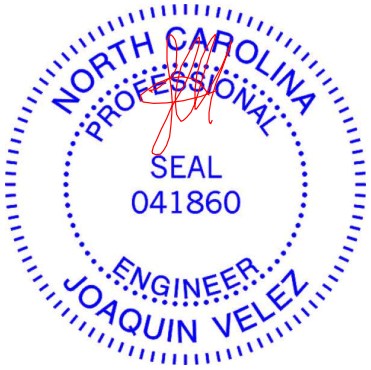
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** All bearings 21-0-0. except 12=0-3-8, 23=0-3-8
(lb) - Max Horiz 22=37 (LC 16)
Max Uplift All uplift 100 (lb) or less at joint(s) 12, 13, 14, 15, 16, 18, 20, 21, 22, 23
Max Grav All reactions 250 (lb) or less at joint (s) 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23

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

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=8.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Unbalanced snow loads have been considered for this design.
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 20, 21, 22, 16, 15, 14, 13, 12, 23.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | G2 | Common | 5 | 1 | T30100032<br>Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:02 Page: 1
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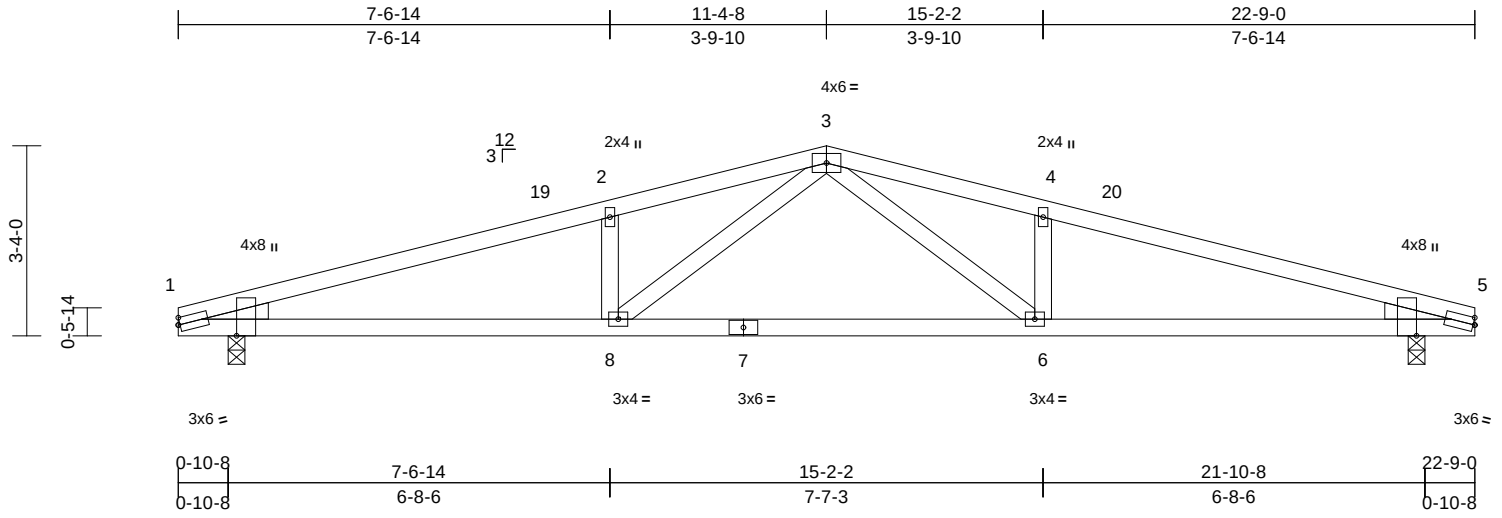



Scale = 1:40.4

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.78 | Vert(LL) | -0.17 | 6-8 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | BC | 0.83 | Vert(CT) | -0.41 | 6-8 | >666 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.26 | Horz(CT) | 0.06 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 91 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

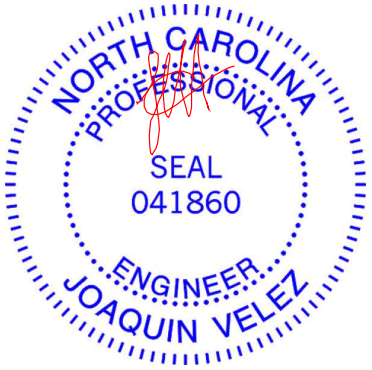
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-2-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-8, 5=0-3-8
Max Horiz 1=37 (LC 16)
Max Uplift 1=-41 (LC 12), 5=-41 (LC 13)
Max Grav 1=910 (LC 2), 5=910 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1964/239, 2-3=-1934/280, 3-4=-1934/280, 4-5=-1964/239
BOT CHORD 1-8=-184/1850, 6-8=-139/1421, 5-6=-184/1850
WEBS 3-6=-59/627, 4-6=-280/122, 3-8=-59/627, 2-8=-280/122

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 1 and 41 lb uplift at joint 5.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard




March 21,2023



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Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | G3 | Common Girder | 1 | 4 | T30100033 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:03 Page: 1
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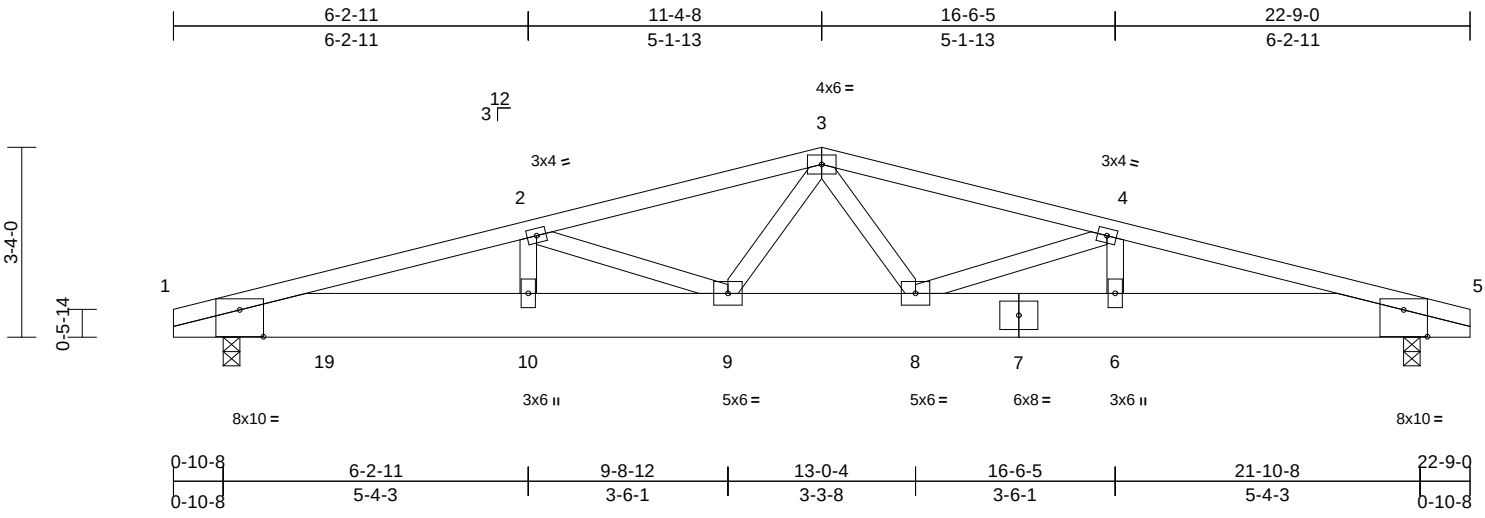


Scale = 1:40.4

Plate Offsets (X, Y): [1:0-5-0,0-5-10], [5:0-5-0,0-5-10]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.35 | Vert(LL) | -0.08 | 9 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | BC | 0.33 | Vert(CT) | -0.16 | 9 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.45 | Horz(CT) | 0.02 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 585 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x10 SP DSS
WEBS 2x4 SP No.3

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

**REACTIONS** (size) 1=0-3-8, 5=0-3-8
Max Horiz 1=37 (LC 16)
Max Uplift 1=-476 (LC 8), 5=-158 (LC 9)
Max Grav 1=6484 (LC 2), 5=2409 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-10383/742, 2-3=-8958/615, 3-4=-7233/479, 4-5=-6299/423
BOT CHORD 1-10=-714/10056, 9-10=-714/10056, 8-9=-416/6768, 6-8=-374/6079, 5-6=-374/6079
WEBS 3-9=-269/3765, 2-9=-1595/182, 2-10=-27/763, 3-8=-10/460, 4-8=-108/1162, 4-6=-864/112

**NOTES**
1) N/A

2) 4-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: 2x10 - 5 rows staggered at 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.

3) 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.
4) Unbalanced roof live loads have been considered for this design.
5) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
6) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
7) Roof design snow load has been reduced to account for slope.
8) Unbalanced snow loads have been considered for this design.
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 476 lb uplift at joint 1 and 158 lb uplift at joint 5.
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2752 lb down and 215 lb up at 9-8-12, and 4320 lb down and 337 lb up at 2-7-14 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-3=-57, 3-5=-57, 1-5=-20
Concentrated Loads (lb)
Vert: 9=-2660 (F), 19=-4175 (F)

NORTH CAROLINA PROFESSIONAL SEAL 041860 ENGINEER JOAQUIN VELEZ

March 21,2023



ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | P1 | Piggyback | 14 | 1 | T30100034<br>Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:03 Page: 1
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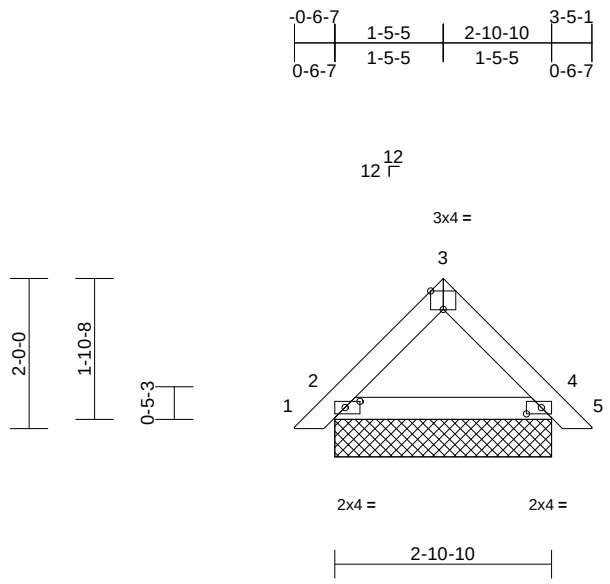


Scale = 1:30.7

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.04 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 8.3/20.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 13 lb | FT = 20% |

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

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

**REACTIONS** (size) 2=2-10-10, 4=2-10-10
Max Horiz 2=35 (LC 13)
Max Uplift 2=-4 (LC 14), 4=-4 (LC 15)
Max Grav 2=136 (LC 2), 4=136 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/24, 2-3=-76/21, 3-4=-76/21, 4-5=0/24
BOT CHORD 2-4=-9/53

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=8.3 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
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) Gable requires continuous bottom chord bearing.
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 2, 4 lb uplift at joint 4, 4 lb uplift at joint 2 and 4 lb uplift at joint 4.
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard


March 21,2023



ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | P2 | Piggyback | 2 | 1 | T30100035<br>Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Feb 9 2023 Print: 8.630 S Feb 9 2023 MiTek Industries, Inc. Tue Mar 21 13:30:56 Page: 1
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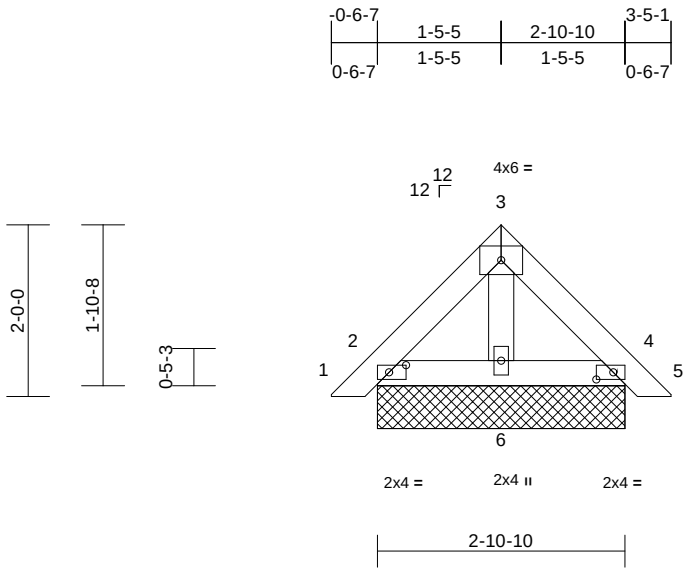



Scale = 1:26.8

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.02 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 8.3/20.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.01 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 14 lb | FT = 20% |

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

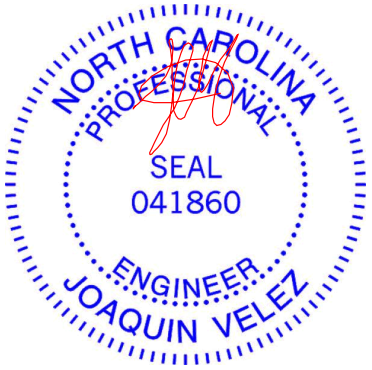
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** All bearings 2-10-10.
(lb) - Max Horiz 2=35 (LC 13), 7=35 (LC 13)
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 4, 7, 10
Max Grav All reactions 250 (lb) or less at joint (s) 2, 4, 6, 7, 10

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

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=8.3 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
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) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 1-4-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4, 2, 4.
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard




March 21,2023



ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | VB1 | Valley | 1 | 1 | T30100036 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:04 Page: 1
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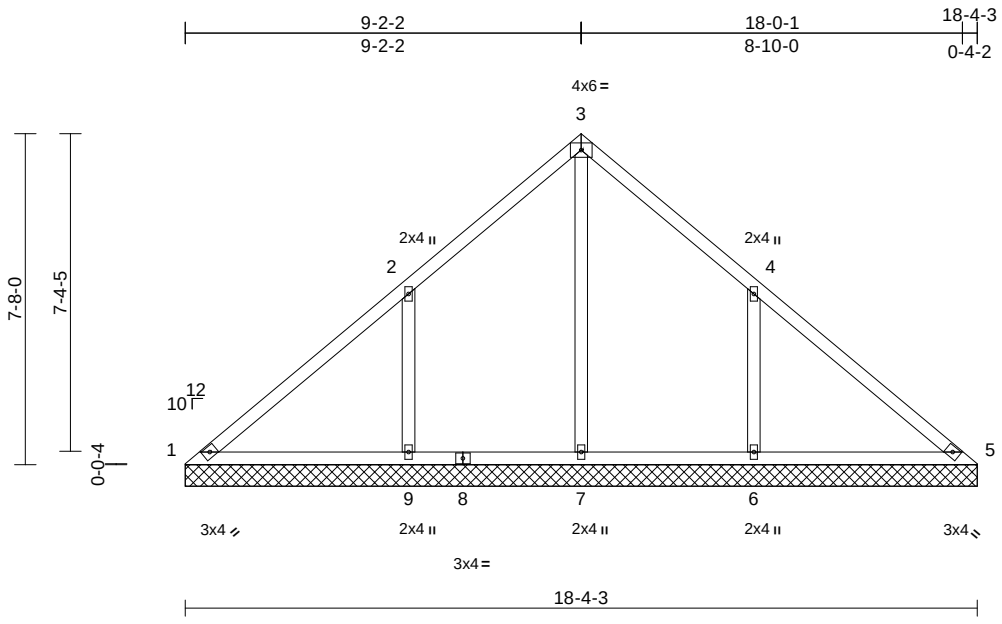


Scale = 1:53.4

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.33 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.23 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.39 | Horiz(TL) | 0.01 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 83 lb | FT = 20% |

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

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

**REACTIONS** (size) 1=18-4-3, 5=18-4-3, 6=18-4-3, 7=18-4-3, 9=18-4-3
Max Horiz 1=-145 (LC 10)
Max Uplift 1=-15 (LC 10), 6=-144 (LC 15), 9=-146 (LC 14)
Max Grav 1=103 (LC 26), 5=100 (LC 30), 6=515 (LC 26), 7=525 (LC 25), 9=518 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-131/282, 2-3=-5/207, 3-4=0/207, 4-5=-96/249
BOT CHORD 1-9=-190/128, 7-9=-190/128, 6-7=-190/128, 5-6=-190/128
WEBS 3-7=-377/0, 2-9=-325/186, 4-6=-324/185

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1, 146 lb uplift at joint 9 and 144 lb uplift at joint 6.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


March 21,2023



ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | VB2 | Valley | 1 | 1 | T30100037 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:04 Page: 1
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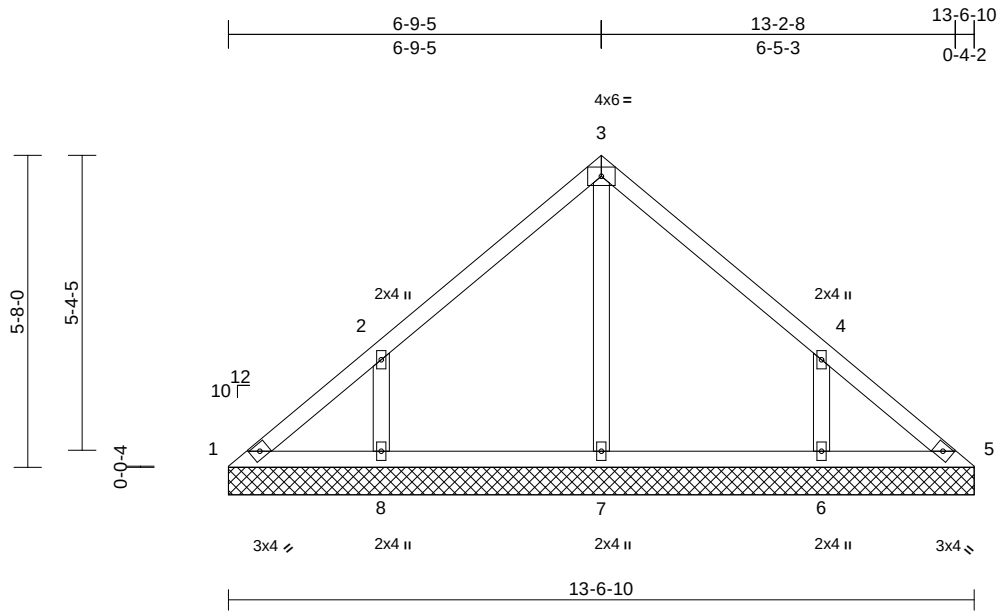


Scale = 1:41.9

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.19 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.12 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.11 | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 58 lb | FT = 20% |

**LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
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 6-0-0 oc bracing.

**REACTIONS** (size) 1=13-6-10, 5=13-6-10, 6=13-6-10, 7=13-6-10, 8=13-6-10
Max Horiz 1=-106 (LC 10)
Max Uplift 1=-18 (LC 10), 6=-104 (LC 15), 8=-107 (LC 14)
Max Grav 1=106 (LC 26), 5=88 (LC 2), 6=333 (LC 26), 7=271 (LC 2), 8=336 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-131/100, 2-3=-117/97, 3-4=-108/89, 4-5=-107/71
BOT CHORD 1-8=-42/102, 7-8=-42/74, 6-7=-42/74, 5-6=-42/81
WEBS 3-7=-190/0, 2-8=-256/150, 4-6=-254/149

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1, 107 lb uplift at joint 8 and 104 lb uplift at joint 6.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard


March 21,2023



ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | VB3 | Valley | 1 | 1 | T30100038 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:04 Page: 1
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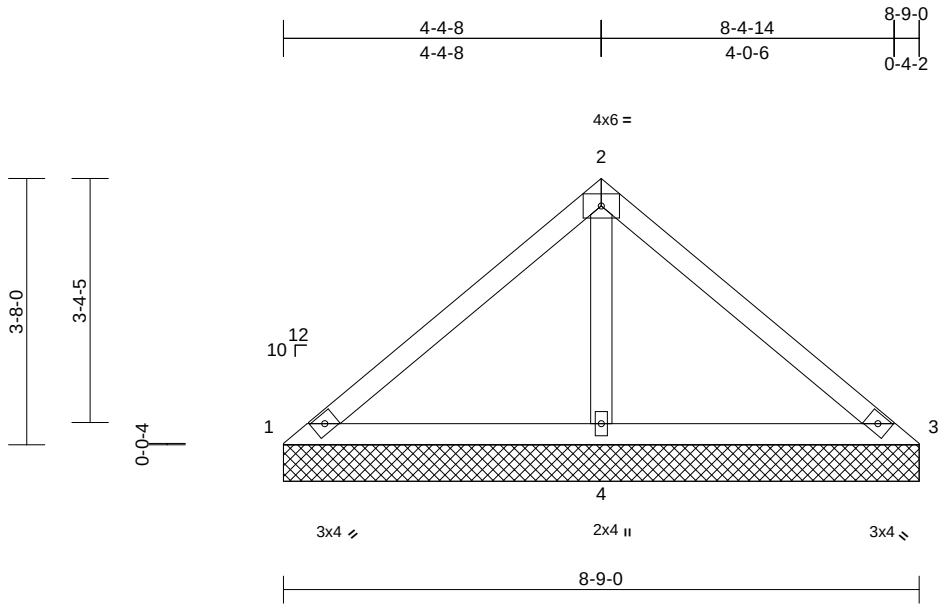



Scale = 1:31.7

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.26 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.23 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.13 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 33 lb | FT = 20% |

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

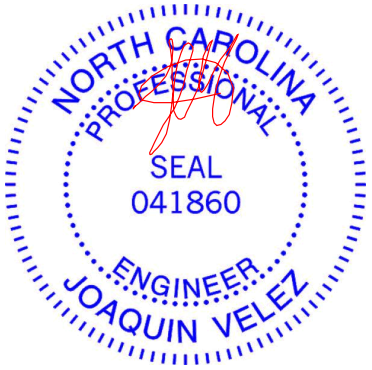
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 8-9-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 1=8-9-0, 3=8-9-0, 4=8-9-0
Max Horiz 1=-67 (LC 10)
Max Uplift 1=-27 (LC 30), 3=-27 (LC 29), 4=-55 (LC 14)
Max Grav 1=61 (LC 29), 3=61 (LC 30), 4=655 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-71/275, 2-3=-71/275
BOT CHORD 1-4=-213/112, 3-4=-213/112
WEBS 2-4=-485/129

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1, 27 lb uplift at joint 3 and 55 lb uplift at joint 4.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard




March 21,2023



ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | CHESAPEAKE HOMES-1944 A w/ 3 CAR GARAGE |
|---|---|---|---|---|---|
| 3466725 | VB4 | Valley | 1 | 1 | T30100039 Job Reference (optional) |

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Mar 20 15:12:04 Page: 1
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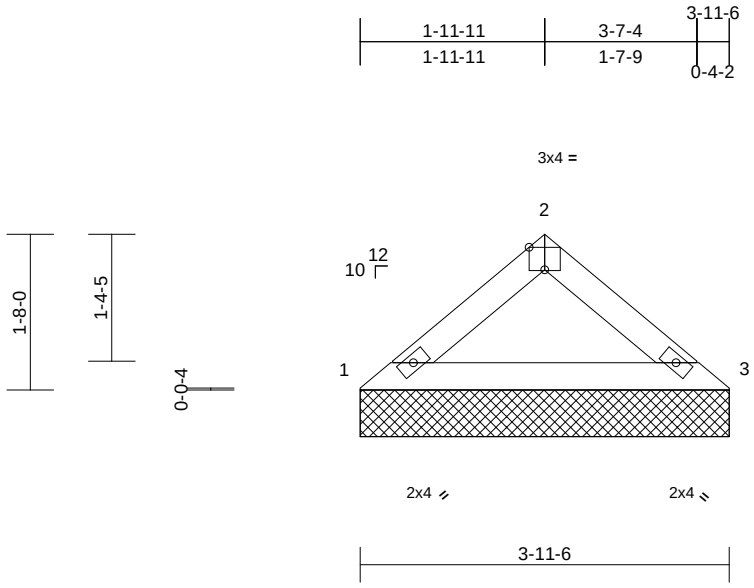



Scale = 1:24.7

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.11 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 12 lb | FT = 20% |

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

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=3-11-6, 3=3-11-6
Max Horiz 1=29 (LC 11)
Max Uplift 1=-2 (LC 14), 3=-2 (LC 15)
Max Grav 1=158 (LC 2), 3=158 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-212/26, 2-3=-212/26
BOT CHORD 1-3=-13/159

**NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 1 and 2 lb uplift at joint 3.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

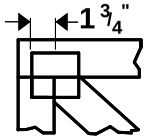

March 21,2023



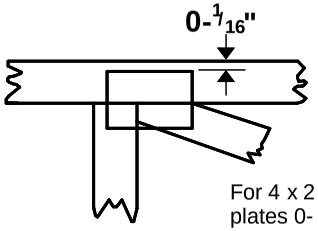
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION




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




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

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

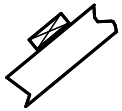
*** Plate location details available in MiTek 20/20 software or upon request.**

## PLATE SIZE

4 x 4

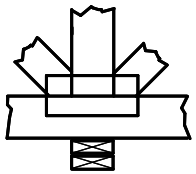
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

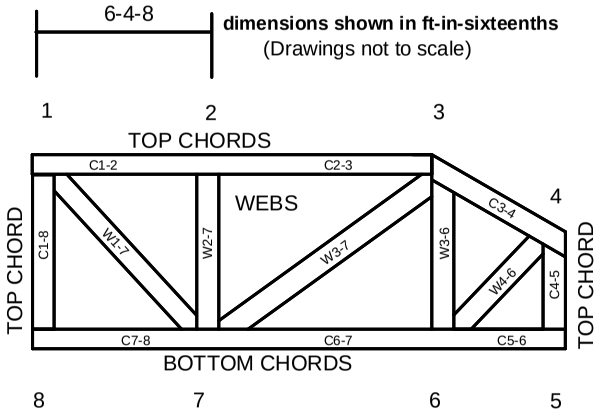


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

**Industry Standards:**

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System




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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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



MiTek
ENGINEERING BY TRENCO
A MiTek Affiliate

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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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