

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: ELV A CP 3CG EB
Roof A CP EB 3C

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource-Apex,NC.

Pages or sheets covered by this seal: I64153317 thru I64153342

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844



March 12, 2024

Liu, Xuegang

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 ELV A CP 3CG EB | Truss A01 | Truss Type Common | Qty 10 | Ply 1 | Roof A CP EB 3C | 164153317 |
| Builders FirstSource (Apex, NC), Apex, NC - 27523, | | | | | | Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:27 |
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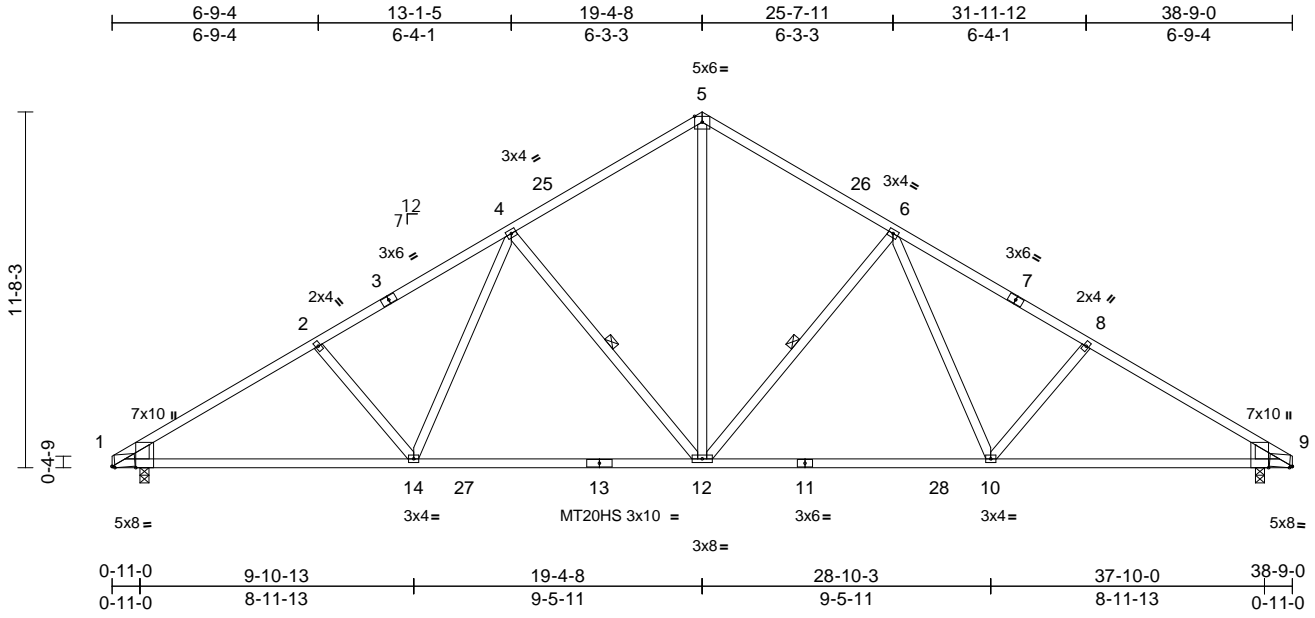


Plate Offsets (X, Y): [1:0-1-1,Edge], [1:0-0-8,Edge], [9:0-1-1,Edge], [9:0-0-8,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.92 | Vert(LL) | -0.36 | 12-14 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 13.2/20.0 | Lumber DOL | 1.15 | BC | 0.96 | Vert(CT) | -0.63 | 10-12 | >735 | 180 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.49 | Horz(CT) | 0.10 | 9 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 212 lb | FT = 20% |

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-3,7-9;2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP DSS

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 6-12, 4-12

REACTIONS (size) 1=0-3-8, 9=0-3-8
Max Horiz 1=219 (LC 13)
Max Uplift 1=-38 (LC 16), 9=-38 (LC 17)
Max Grav 1=1555 (LC 29), 9=1555 (LC 30)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2250/179, 2-4=-2067/198,
4-5=-1554/225, 5-6=-1554/225,
6-8=-2068/198, 8-9=-2250/179
BOT CHORD 1-14=-181/1983, 12-14=-42/1722,
10-12=0/1611, 9-10=-73/1819
WEBS 5-12=-118/1192, 6-12=-627/177,
6-10=-5/378, 8-10=-212/148, 2-14=-212/148,
4-14=-5/378, 4-12=-627/177

- 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=13.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 1 and 38 lb uplift at joint 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

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - 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



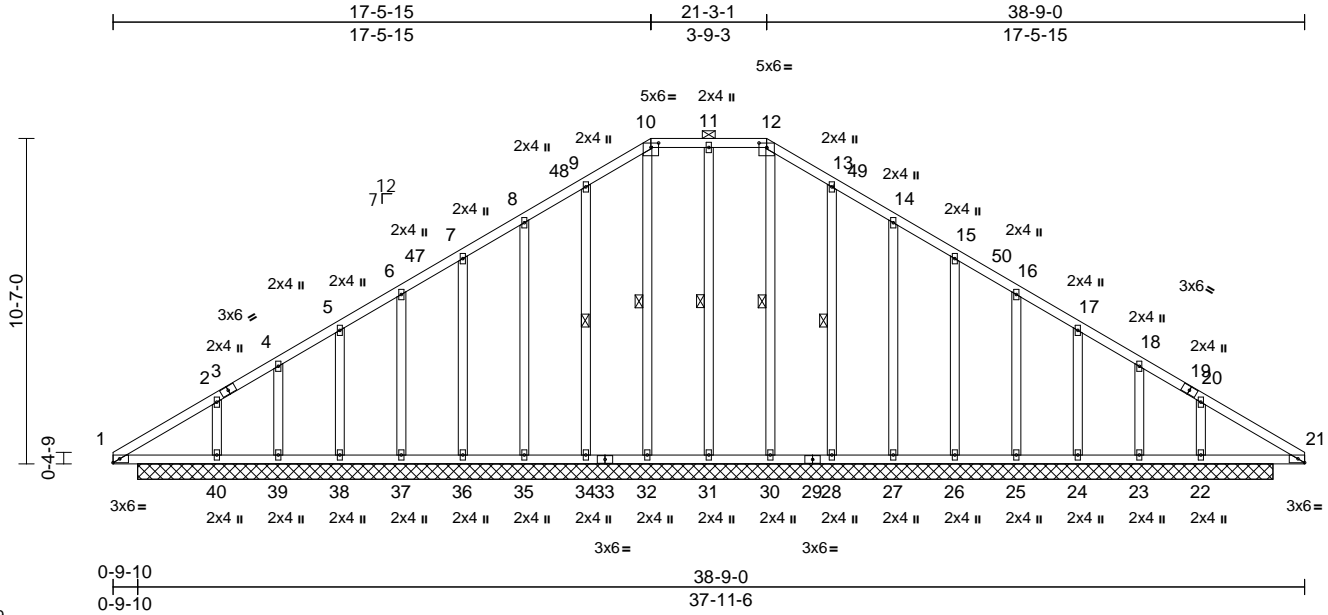
March 12, 2024

| | | | | | | |
|--------------------------|----------------|-----------------------------------|----------|----------|-----------------|-----------|
| Job ELV A CP 3CG EB | Truss A01GA | Truss Type Hip Supported Gable | Qty 1 | Ply 1 | Roof A CP EB 3C | 164153318 |
| Job Reference (optional) | | | | | | |

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:74.9

Plate Offsets (X, Y): [10:0-3-0,0-1-12], [12:0-3-0,0-1-12], [21:0-2-9,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.27 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 13.2/20.0 | Lumber DOL | 1.15 | BC | 0.24 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.22 | Horiz(TL) | -0.01 | 22 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 279 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.): 10-12.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

WEBS 1 Row at midpt 11-31, 10-32, 9-34, 12-30, 13-28

REACTIONS (size)
22=36-11-0, 23=36-11-0, 24=36-11-0, 25=36-11-0, 26=36-11-0, 27=36-11-0, 28=36-11-0, 30=36-11-0, 31=36-11-0, 32=36-11-0, 34=36-11-0, 35=36-11-0, 36=36-11-0, 37=36-11-0, 38=36-11-0, 39=36-11-0, 40=36-11-0
Max Horiz 40=198 (LC 13)
Max Uplift 22=70 (LC 16), 23=114 (LC 12), 24=15 (LC 17), 25=38 (LC 17), 26=32 (LC 17), 27=35 (LC 17), 28=35 (LC 17), 31=7 (LC 13), 34=35 (LC 16), 35=34 (LC 16), 36=32 (LC 16), 37=38 (LC 16), 38=15 (LC 17), 39=123 (LC 13), 40=76 (LC 17)

Max Grav 22=390 (LC 54), 23=195 (LC 48), 24=248 (LC 38), 25=222 (LC 38), 26=229 (LC 38), 27=222 (LC 38), 28=250 (LC 38), 30=246 (LC 23), 31=274 (LC 37), 32=246 (LC 22), 34=250 (LC 38), 35=222 (LC 38), 36=229 (LC 38), 37=222 (LC 38), 38=248 (LC 38), 39=201 (LC 46), 40=390 (LC 53)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-69/289, 2-4=-64/260, 4-5=-14/248, 5-6=0/247, 6-7=0/256, 7-8=-29/264, 8-9=-60/275, 9-10=-97/279, 10-11=-88/253, 11-12=-88/253, 12-13=-97/279, 13-14=-60/272, 14-15=-29/261, 15-16=0/252, 16-17=0/244, 17-18=-8/243, 18-20=-56/254, 20-21=-65/285
BOT CHORD 1-40=-223/92, 39-40=-219/88, 38-39=-219/88, 37-38=-219/88, 36-37=-219/88, 35-36=-219/88, 34-35=-219/88, 32-34=-219/88, 31-32=-217/90, 30-31=-217/90, 28-30=-219/89, 27-28=-219/89, 26-27=-219/89, 25-26=-219/89, 24-25=-219/89, 23-24=-219/89, 22-23=-219/89, 21-22=-219/89
WEBS 11-31=-234/31, 10-32=-206/0, 9-34=-210/59, 8-35=-182/58, 7-36=-188/57, 6-37=-185/59, 5-38=-200/53, 4-39=-145/88, 2-40=-237/68, 12-30=-206/0, 13-28=-210/59, 14-27=-182/58, 15-26=-188/57, 16-25=-185/59, 17-24=-200/53, 18-23=-142/86, 20-22=-237/68

- 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
- 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.
- ** 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=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.

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



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Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



| | | | | | | |
|-----------------|-------|---------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Roof A CP EB 3C | I64153318 |
| ELV A CP 3CG EB | A01GA | Hip Supported Gable | 1 | 1 | Job Reference (optional) | |

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 2

- 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 31, 35 lb uplift at joint 34, 34 lb uplift at joint 35, 32 lb uplift at joint 36, 38 lb uplift at joint 37, 15 lb uplift at joint 38, 123 lb uplift at joint 39, 76 lb uplift at joint 40, 35 lb uplift at joint 28, 35 lb uplift at joint 27, 32 lb uplift at joint 26, 38 lb uplift at joint 25, 15 lb uplift at joint 24, 114 lb uplift at joint 23 and 70 lb uplift at joint 22.
- 13) N/A
- 14) 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.
- 15) 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: 1-10=-46, 10-12=-60, 12-21=-46, 41-44=-20

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

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



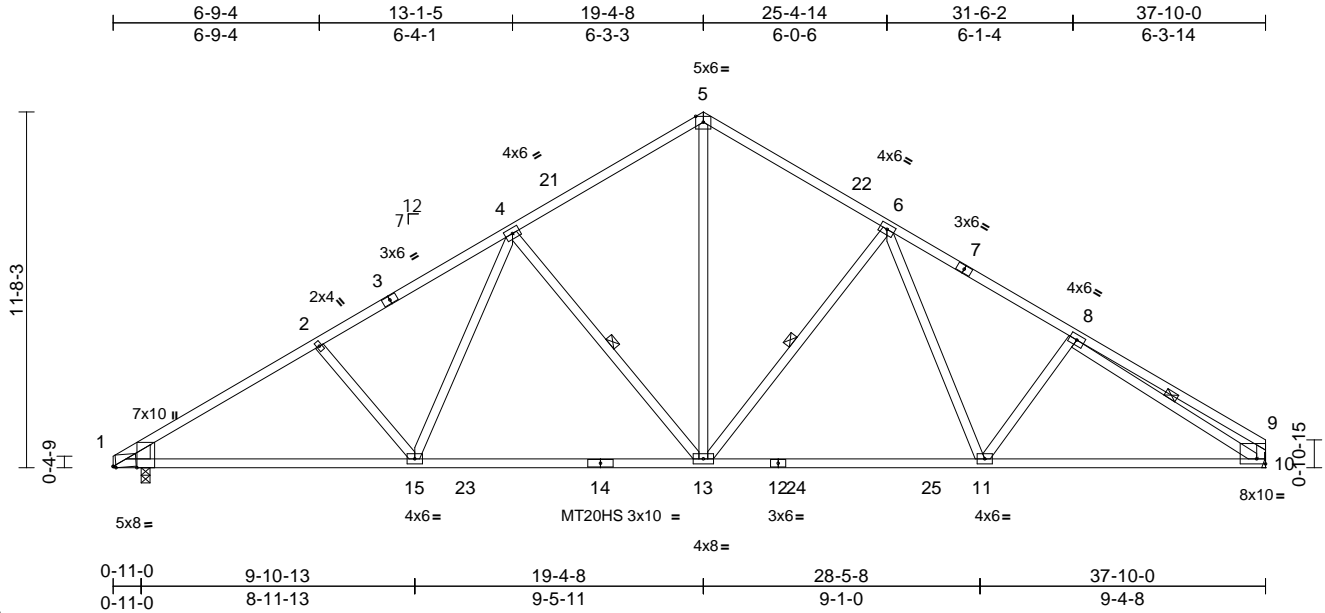
818 Soundside Road
Edenton, NC 27932

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|--------------------------|--------------|----------------------|----------|----------|-----------------|-----------|
| Job ELV A CP 3CG EB | Truss A03 | Truss Type Common | Qty 3 | Ply 1 | Roof A CP EB 3C | 164153319 |
| Job Reference (optional) | | | | | | |

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Scale = 1:75.6
Plate Offsets (X, Y): [1:0-1-1,Edge], [1:0-0-8,Edge], [10:Edge,0-2-0]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.93 | Vert(LL) | -0.34 | 13-15 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 13.2/20.0 | Lumber DOL | 1.15 | BC | 0.95 | Vert(CT) | -0.61 | 13-15 | >742 | 180 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.59 | Horz(CT) | 0.09 | 10 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 219 lb | FT = 20% |

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-3:2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3
WEDGE Left: 2x6 SP DSS

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 1-15.
WEBS 1 Row at midpt 8-10, 6-13, 4-13

REACTIONS (size) 1=0-3-8, 10= Mechanical
Max Horiz 1=226 (LC 15)
Max Uplift 1=38 (LC 16), 10=32 (LC 17)
Max Grav 1=1551 (LC 29), 10=1476 (LC 30)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2246/178, 2-4=-2063/197, 4-5=-1544/225, 5-6=-1536/226, 6-8=-2091/203, 8-9=-480/80, 9-10=-371/75
BOT CHORD 1-15=-182/1978, 13-15=-43/1716, 11-13=-16/1589, 10-11=-96/1795
WEBS 5-13=-119/1178, 8-10=-1807/112, 6-13=-618/170, 6-11=-12/436, 8-11=-207/159, 2-15=-212/148, 4-15=-4/385, 4-13=-630/176

- 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=13.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Bearings are assumed to be: Joint 1 SP No.1 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 1 and 32 lb uplift at joint 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

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - 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



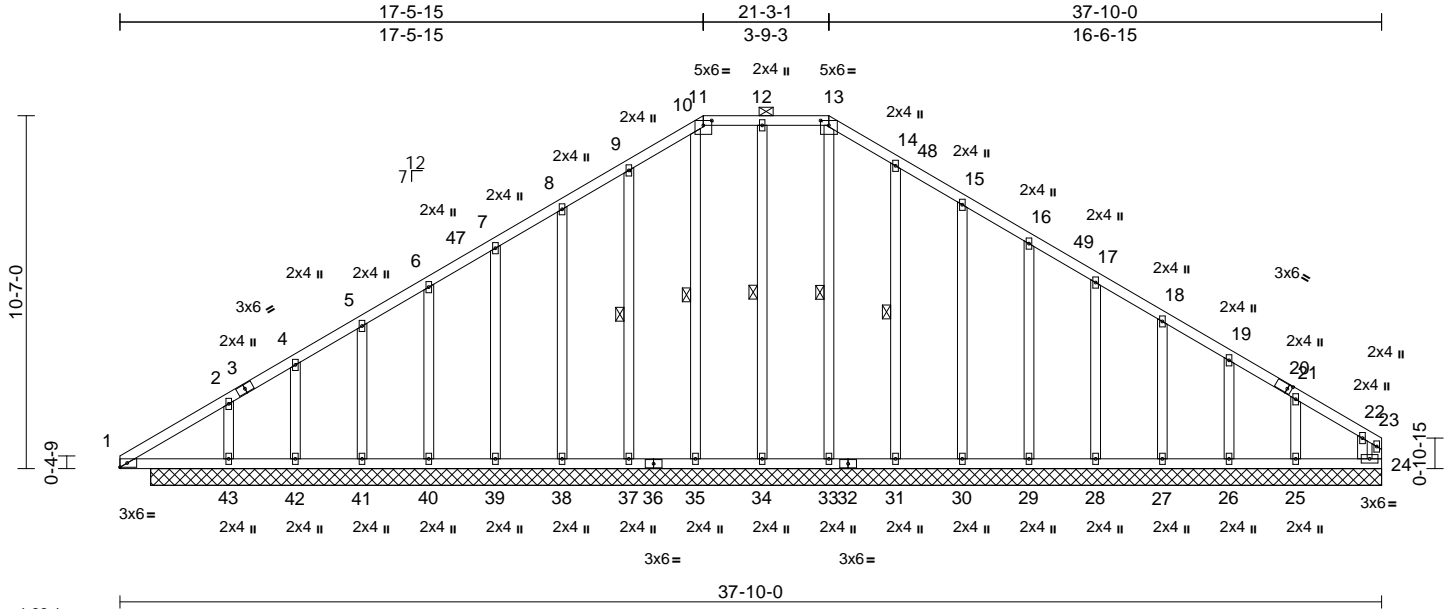
March 12, 2024

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|--------------------------|----------------|-----------------------------------|----------|----------|-----------------|-----------|
| Job ELV A CP 3CG EB | Truss A03GA | Truss Type Hip Supported Gable | Qty 1 | Ply 1 | Roof A CP EB 3C | 164153320 |
| Job Reference (optional) | | | | | | |

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:31
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Page: 1



Scale = 1:69.1

Plate Offsets (X, Y): [11:0-3-0-0-1-12], [13:0-3-0-0-1-12], [20:0-1-8-0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.23 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 13.2/20.0 | Lumber DOL | 1.15 | BC | 0.19 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.22 | Horiz(TL) | -0.01 | 24 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 278 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.): 11-13. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing. |
| WEBS | 1 Row at midpt 13-33, 12-34, 10-35, 9-37, 14-31 |

REACTIONS (size)

| |
|---|
| 24=36-11-0, 25=36-11-0, 26=36-11-0, 27=36-11-0, 28=36-11-0, 29=36-11-0, 30=36-11-0, 31=36-11-0, 33=36-11-0, 34=36-11-0, 35=36-11-0, 37=36-11-0, 38=36-11-0, 39=36-11-0, 40=36-11-0, 41=36-11-0, 42=36-11-0, 43=36-11-0 |
| Max Horiz 43=205 (LC 15) |
| Max Uplift 24=-145 (LC 15), 25=-93 (LC 17), 26=-15 (LC 17), 27=-37 (LC 17), 28=-32 (LC 17), 29=-33 (LC 17), 30=-35 (LC 17), 31=-32 (LC 17), 34=-10 (LC 12), 37=-41 (LC 16), 38=-33 (LC 16), 39=-32 (LC 16), 40=-35 (LC 16), 41=-24 (LC 16), 42=-66 (LC 16), 43=-7 (LC 16) |

Max Grav 24=112 (LC 12), 25=319 (LC 30), 26=152 (LC 38), 27=239 (LC 38), 28=224 (LC 38), 29=228 (LC 38), 30=224 (LC 38), 31=243 (LC 38), 33=233 (LC 31), 34=285 (LC 37), 35=246 (LC 22), 37=233 (LC 38), 38=225 (LC 38), 39=229 (LC 38), 40=221 (LC 38), 41=255 (LC 38), 42=119 (LC 46), 43=350 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

| | |
|------------------|---|
| TOP CHORD | 1-2=-42/221, 2-4=-6/171, 4-5=0/191, 5-6=0/186, 6-7=-18/203, 7-8=-50/225, 8-9=-82/247, 9-10=-117/274, 10-11=-109/227, 11-12=-108/251, 12-13=-108/251, 13-14=-120/277, 14-15=-86/271, 15-16=-54/260, 16-17=-36/252, 17-18=-53/243, 18-19=-76/255, 19-21=-94/250, 21-22=-140/316, 22-23=-17/7, 23-24=-170/71 |
| BOT CHORD | 1-43=-159/63, 42-43=-233/126, 41-42=-233/126, 40-41=-233/126, 39-40=-233/126, 38-39=-233/126, 37-38=-233/126, 35-37=-233/126, 34-35=-233/126, 33-34=-233/126, 31-33=-233/126, 30-31=-233/126, 29-30=-233/126, 28-29=-233/126, 27-28=-233/126, 26-27=-233/126, 25-26=-233/126, 24-25=-233/126 |
| WEBS | 13-33=-193/1, 12-34=-245/34, 10-35=-206/0, 9-37=-193/65, 8-38=-186/57, 7-39=-188/57, 6-40=-184/58, 5-41=-202/54, 4-42=-109/69, 2-43=-217/63, 14-31=-202/56, 15-30=-184/59, 16-29=-188/57, 17-28=-185/56, 18-27=-197/60, 19-26=-122/47, 21-25=-231/105, 22-24=-172/324 |

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.
- ** 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=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.



March 12, 2024

Continued on page 2

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

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



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| | | | | | | |
|------------------------|----------------|-----------------------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss A03GA | Truss Type Hip Supported Gable | Qty 1 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | I64153320 |
|------------------------|----------------|-----------------------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:31
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Page: 2

- 6) Unbalanced snow loads have been considered for this design.
- 7) Provide adequate drainage to prevent water ponding.
- 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 145 lb uplift at joint 24, 10 lb uplift at joint 34, 41 lb uplift at joint 37, 33 lb uplift at joint 38, 32 lb uplift at joint 39, 35 lb uplift at joint 40, 24 lb uplift at joint 41, 66 lb uplift at joint 42, 7 lb uplift at joint 43, 32 lb uplift at joint 31, 35 lb uplift at joint 30, 33 lb uplift at joint 29, 32 lb uplift at joint 28, 37 lb uplift at joint 27, 15 lb uplift at joint 26 and 93 lb uplift at joint 25.
- 13) N/A
- 14) 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.
- 15) 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: 1-11=-46, 11-13=-60, 13-23=-46, 24-44=-20

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

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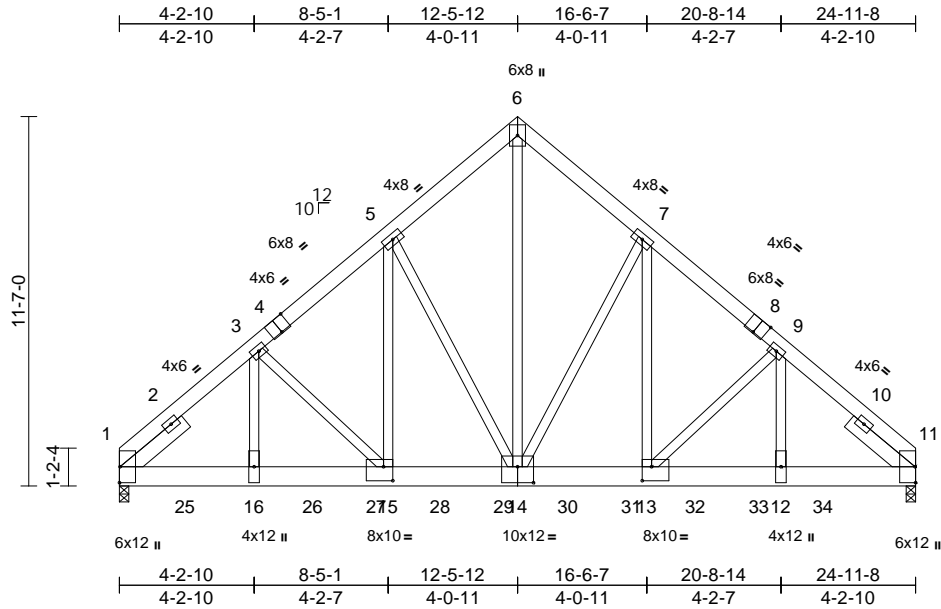
818 Soundside Road
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|------------------------|----------------|-----------------------------|----------|----------|--------------------------|-----------|
| Job ELV A CP 3CG EB | Truss B01GR | Truss Type Common Girder | Qty 1 | Ply 3 | Roof A CP EB 3C | I64153322 |
| | | | | | Job Reference (optional) | |

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:33
ID:0qSBIjUG6KjQ1vAirZaJCRzIBlj-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwKDCoi7J4zJC7f

Page: 1



Scale = 1:72.2

Plate Offsets (X, Y): [4:0-4-0,Edge], [8:0-4-0,Edge], [13:0-3-8,0-5-4], [14:0-6-0,0-6-0], [15:0-3-8,0-5-4]

| 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 | 0.64 | Vert(LL) | -0.09 | 15-16 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.36 | Vert(CT) | -0.19 | 15-16 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.79 | Horz(CT) | 0.05 | 11 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 761 lb | FT = 20% |

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x8 SP DSS
 WEBS 2x4 SP No.3 *Except* 14-6:2x4 SP No.2
 SLIDER Left 2x6 SP DSS -- 2-6-0, Right 2x6 SP DSS -- 2-6-0

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, 11=0-3-8, (req. 0-3-9)
 Max Horiz 1=-199 (LC 6)
 Max Grav 1=10051 (LC 21), 11=10637 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-3=-11818/0, 3-5=-10347/0, 5-6=-8167/0, 6-7=-8166/0, 7-9=-10177/0, 9-11=-11442/0
 BOT CHORD 1-16=0/8779, 15-16=0/8779, 13-15=0/8077, 12-13=0/8387, 11-12=0/8387
 WEBS 3-16=0/2044, 3-15=-982/0, 5-15=0/4388, 5-14=-3720/0, 6-14=0/10042, 7-14=-3426/0, 7-13=0/4033, 9-13=-871/485, 9-12=-340/1809

NOTES

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 oc.
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 3-16 2x4 - 2 rows staggered at 0-6-0 oc.

- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; 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
- 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
- Roof design snow load has been reduced to account for slope.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- WARNING: Required bearing size at joint(s) 11 greater than input bearing size.
- All bearings are assumed to be SP DSS crushing capacity of 660 psi.
- 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.

- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1456 lb down and 44 lb up at 2-0-12, 1662 lb down at 4-0-12, 1662 lb down at 6-0-12, 1662 lb down at 8-0-12, 1662 lb down at 10-0-12, 1662 lb down at 12-0-12, 1662 lb down at 14-0-12, 1662 lb down at 16-0-12, 1456 lb down and 44 lb up at 18-0-12, 1456 lb down and 44 lb up at 20-0-12, and 1456 lb down and 44 lb up at 22-0-12, and 1459 lb down and 42 lb up at 24-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
 Uniform Loads (lb/ft)
 Vert: 1-6=-40, 6-11=-40, 17-21=-20
 Concentrated Loads (lb)
 Vert: 16=-1307 (B), 23=-1222 (B), 25=-1219 (B), 26=-1307 (B), 27=-1307 (B), 28=-1307 (B), 29=-1307 (B), 30=-1307 (B), 31=-1307 (B), 32=-1219 (B), 33=-1219 (B), 34=-1219 (B)



March 12, 2024

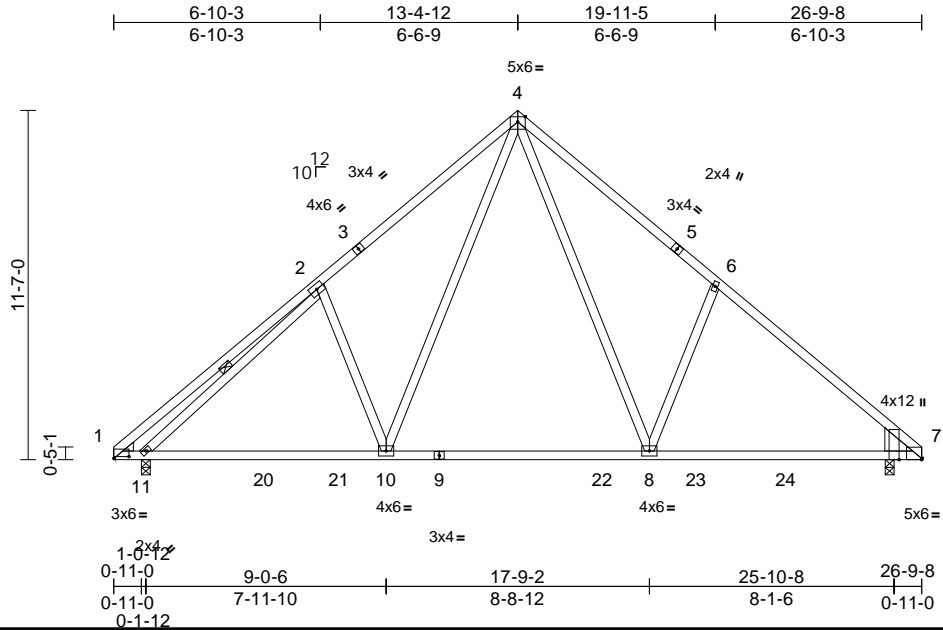
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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|--|--------------|----------------------|----------|----------|-----------------|---|
| Job ELV A CP 3CG EB | Truss B02 | Truss Type Common | Qty 1 | Ply 1 | Roof A CP EB 3C | I64153323 |
| Builders FirstSource (Apex, NC), Apex, NC - 27523, | | | | | | Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:33 |
| ID:c5Td3hHYNCYRSqJ3fTsTmlzIBPR-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcDoi7J4zJC?# | | | | | | Page: 1 |



Scale = 1:76.4
Plate Offsets (X, Y): [1:0-6-0,0-0-12], [7:Edge,0-0-8], [7:0-0-8,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.71 | Vert(LL) | -0.24 | 8-10 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.90 | Vert(CT) | -0.40 | 8-10 | >782 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.36 | Horz(CT) | 0.04 | 7 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 161 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: 2x10 SP DSS

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-11

REACTIONS (size) 7=0-3-8, 11=0-3-8
Max Horiz 11=216 (LC 10)
Max Uplift 7=-10 (LC 15), 11=-10 (LC 14)
Max Grav 7=1135 (LC 26), 11=1112 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-451/104, 2-4=-1173/233,
4-6=-1150/236, 6-7=-1246/122
BOT CHORD 1-11=-50/248, 10-11=-81/1013, 8-10=0/675,
7-8=-29/885
WEBS 4-8=-126/598, 6-8=-298/226, 4-10=-118/629,
2-10=-289/233, 2-11=-926/41

- 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
- Roof design snow load has been reduced to account for slope.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 7 and 10 lb uplift at joint 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

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - 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



March 12, 2024

| | | | | | | |
|------------------------|----------------|-----------------------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss B02GA | Truss Type Hip Supported Gable | Qty 1 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | I64153324 |
|------------------------|----------------|-----------------------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:34
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Page: 2

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 27, 58 lb uplift at joint 28, 31 lb uplift at joint 29, 146 lb uplift at joint 30, 103 lb uplift at joint 31, 71 lb uplift at joint 22, 58 lb uplift at joint 21, 33 lb uplift at joint 20, 138 lb uplift at joint 19 and 83 lb uplift at joint 18.
- 13) N/A
- 14) 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.
- 15) 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: 1-8=-40, 8-10=-60, 10-17=-40, 32-35=-20

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

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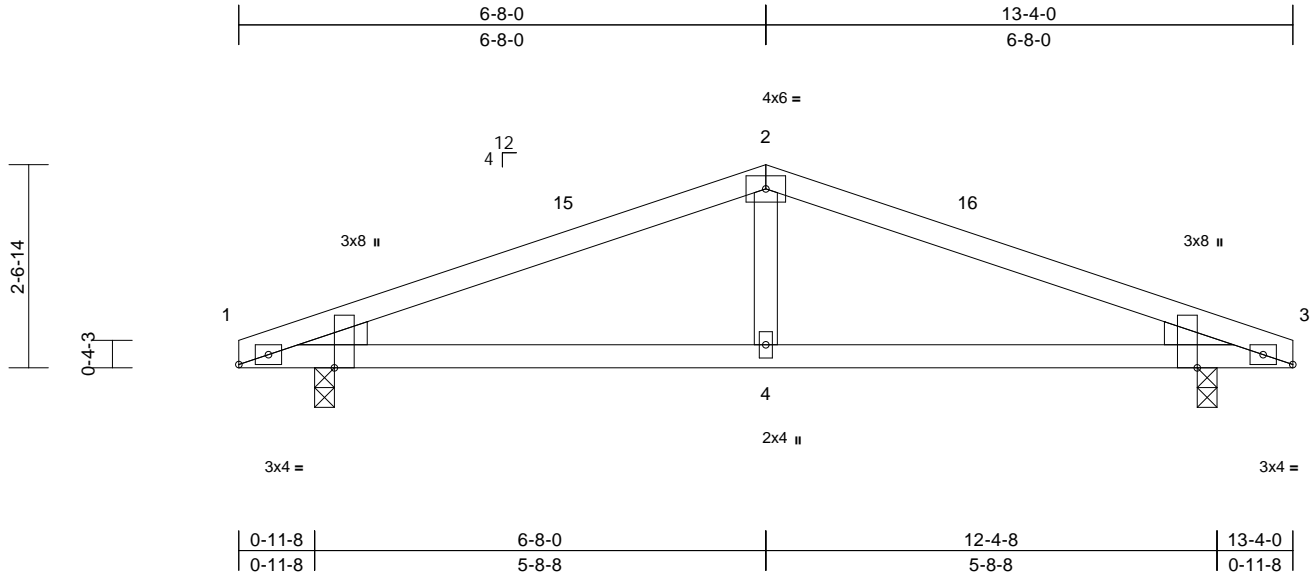
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|------------------------|---------------|----------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss CP01 | Truss Type Common | Qty 5 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | 164153325 |
|------------------------|---------------|----------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:34
ID: YJ08J4HIsFBO4A9F2T_s5gzd29o-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC7f

Page: 1



Scale = 1:29.1

Plate Offsets (X, Y): [1:0-2-8,Edge], [1:0-0-8,Edge], [3:0-2-8,Edge], [3:0-0-8,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.33 | Vert(LL) | -0.03 | 4-14 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 17.2/20.0 | Lumber DOL | 1.15 | BC | 0.28 | Vert(CT) | -0.05 | 4-14 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.08 | Horz(CT) | 0.01 | 3 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 47 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 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=0-3-0, 3=0-3-0
 Max Horiz 1=29 (LC 16)
 Max Uplift 1=-26 (LC 12), 3=-26 (LC 13)
 Max Grav 1=533 (LC 2), 3=533 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-700/124, 2-3=-700/124
 BOT CHORD 1-4=-58/617, 3-4=-58/617
 WEBS 2-4=0/215

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- 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
- Roof design snow load has been reduced to account for slope.

- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1 and 26 lb uplift at joint 3.
- 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 12, 2024

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

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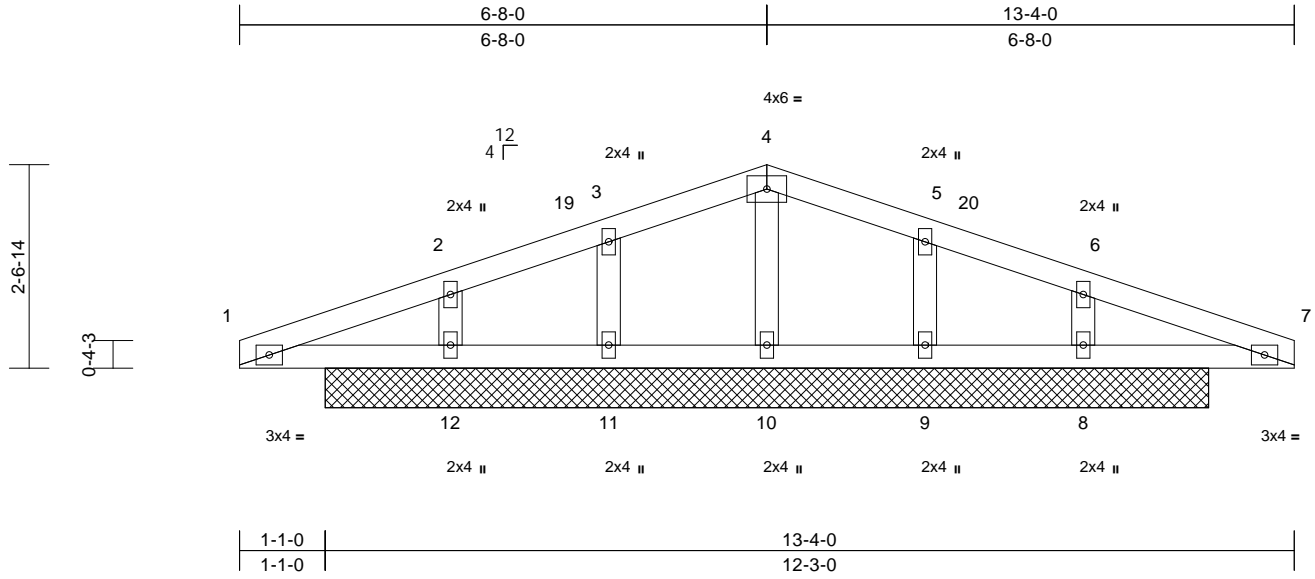
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| | | | | | | |
|------------------------|----------------|--------------------------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss CP01G | Truss Type Common Supported Gable | Qty 1 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | I64153326 |
|------------------------|----------------|--------------------------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:35
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Page: 1



Scale = 1:29.1

| 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 | 0.19 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 17.2/20.0 | Lumber DOL | 1.15 | BC | 0.15 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.06 | Horiz(TL) | 0.00 | 8 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | Weight: 50 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) 8=11-2-0, 9=11-2-0, 10=11-2-0,
11=11-2-0, 12=11-2-0
Max Horiz 12=29 (LC 16)
Max Uplift 8=-34 (LC 17), 9=-15 (LC 13),
11=-16 (LC 12), 12=-33 (LC 16)
Max Grav 8=306 (LC 34), 9=122 (LC 2),
10=309 (LC 2), 11=122 (LC 2),
12=306 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-32/253, 2-3=-5/239, 3-4=0/243,
4-5=0/243, 5-6=-5/239, 6-7=-32/253
BOT CHORD 1-12=-213/46, 11-12=-213/46,
10-11=-213/46, 9-10=-213/46, 8-9=-213/46,
7-8=-213/46
WEBS 4-10=-256/30, 3-11=-108/56, 2-12=-187/63,
5-9=-108/56, 6-8=-187/63

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

- 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.
- 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
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 11, 33 lb uplift at joint 12, 15 lb uplift at joint 9 and 34 lb uplift at joint 8.
- N/A
- 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 12, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

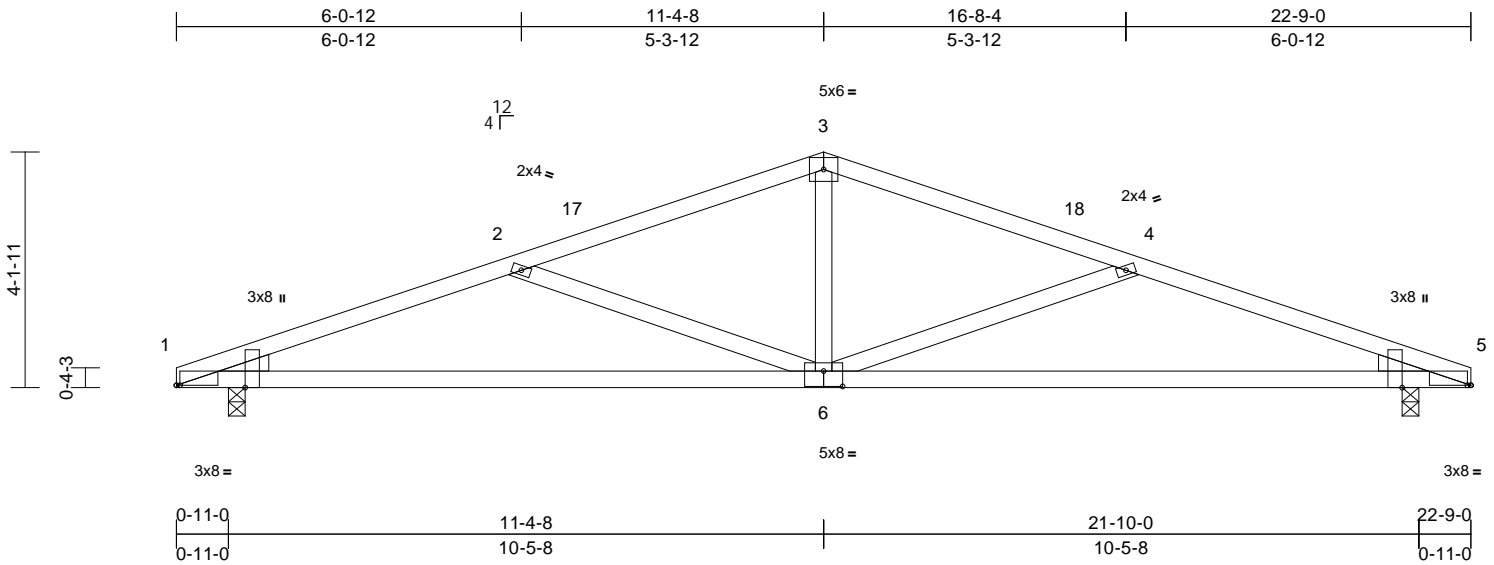
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|------------------------|--------------|----------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss G01 | Truss Type Common | Qty 3 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | 164153327 |
|------------------------|--------------|----------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:35
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Page: 1



Scale = 1:40.5

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.55 | Vert(LL) | -0.15 | 6-11 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 17.2/20.0 | Lumber DOL | 1.15 | BC | 0.91 | Vert(CT) | -0.31 | 6-11 | >880 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.29 | Horz(CT) | 0.05 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 94 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 4-1-5 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=50 (LC 16)
 Max Uplift 1=-43 (LC 12), 5=-43 (LC 13)
 Max Grav 1=910 (LC 2), 5=910 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1697/262, 2-3=-1304/164,
 3-4=-1304/164, 4-5=-1697/262
 BOT CHORD 1-5=-194/1564
 WEBS 3-6=0/523, 2-6=-446/152, 4-6=-446/152

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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 1 and 43 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 12, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



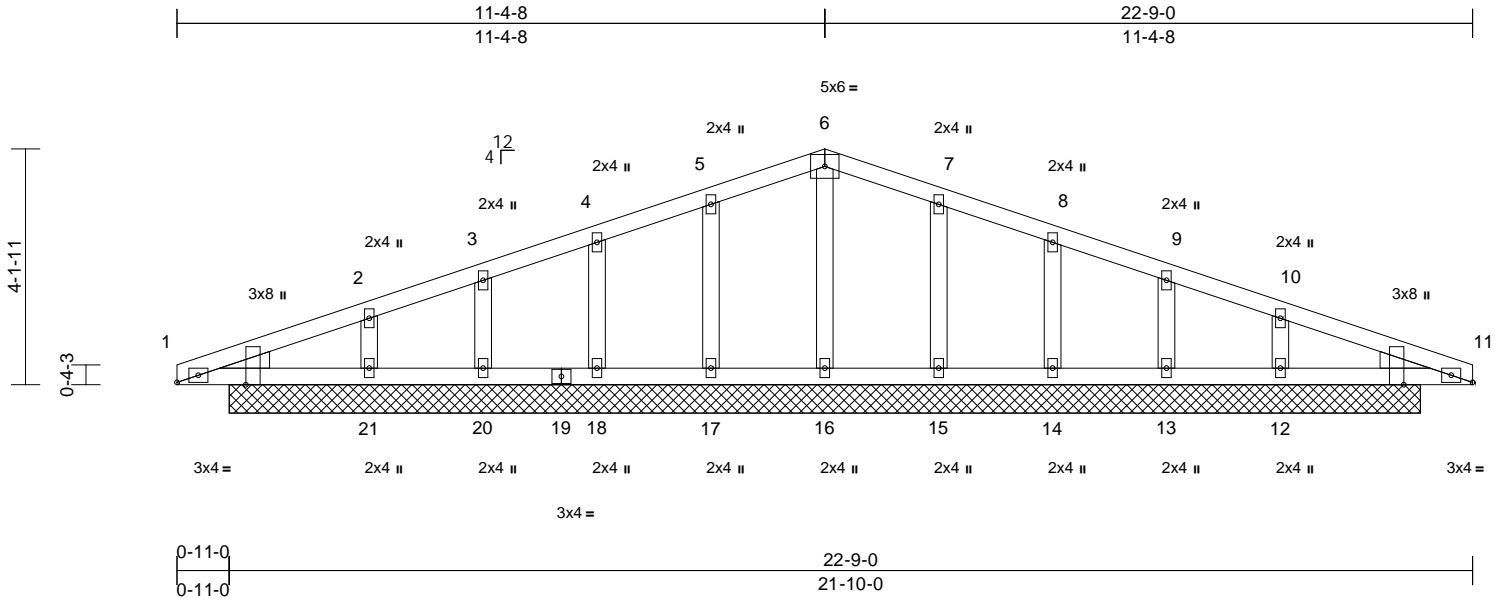
818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|------------------------|---------------|--------------------------------------|----------|----------|--------------------------|-----------|
| Job ELV A CP 3CG EB | Truss G01G | Truss Type Common Supported Gable | Qty 1 | Ply 1 | Roof A CP EB 3C | 164153328 |
| | | | | | Job Reference (optional) | |

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:40.5
Plate Offsets (X, Y): [1:0-2-8,Edge], [1:0-0-8,Edge], [11:0-2-8,Edge], [11:0-0-8,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 17.2/20.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.04 | Horiz(TL) | 0.00 | 11 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 101 lb | FT = 20% |

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 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=20-11-0, 11=20-11-0,
12=20-11-0, 13=20-11-0,
14=20-11-0, 15=20-11-0,
16=20-11-0, 17=20-11-0,
18=20-11-0, 20=20-11-0,
21=20-11-0, 24=20-11-0,
29=20-11-0
Max Horiz 1=50 (LC 17), 24=50 (LC 17)
Max Uplift 11=1 (LC 13), 12=32 (LC 17),
13=16 (LC 13), 14=20 (LC 13),
15=21 (LC 17), 17=21 (LC 16),
18=20 (LC 16), 20=15 (LC 12),
21=36 (LC 16), 29=1 (LC 13)
Max Grav 1=180 (LC 2), 11=180 (LC 2),
12=183 (LC 34), 13=154 (LC 2),
14=167 (LC 23), 15=199 (LC 23),
16=137 (LC 2), 17=199 (LC 22),
18=167 (LC 22), 20=154 (LC 2),
21=183 (LC 33), 24=180 (LC 2),
29=180 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=52/30, 2-3=45/40, 3-4=38/52,
4-5=38/67, 5-6=47/91, 6-7=47/91,
7-8=38/67, 8-9=38/43, 9-10=38/20,
10-11=33/15

BOT CHORD 1-21=-23/40, 20-21=-2/40, 18-20=-2/40,
17-18=-2/40, 16-17=-2/40, 15-16=-2/40,
14-15=-2/40, 13-14=-2/40, 12-13=-2/40,
11-12=-5/40
WEBS 6-16=-97/0, 5-17=-159/51, 4-18=-126/51,
3-20=-118/49, 2-21=-128/54, 7-15=-159/51,
8-14=-126/51, 9-13=-118/49, 10-12=-128/54

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=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=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
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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 11, 21 lb uplift at joint 17, 20 lb uplift at joint 18, 15 lb uplift at joint 20, 36 lb uplift at joint 21, 21 lb uplift at joint 15, 20 lb uplift at joint 14, 16 lb uplift at joint 13, 32 lb uplift at joint 12 and 1 lb uplift at joint 11.
12) N/A
13) 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 12, 2024

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

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



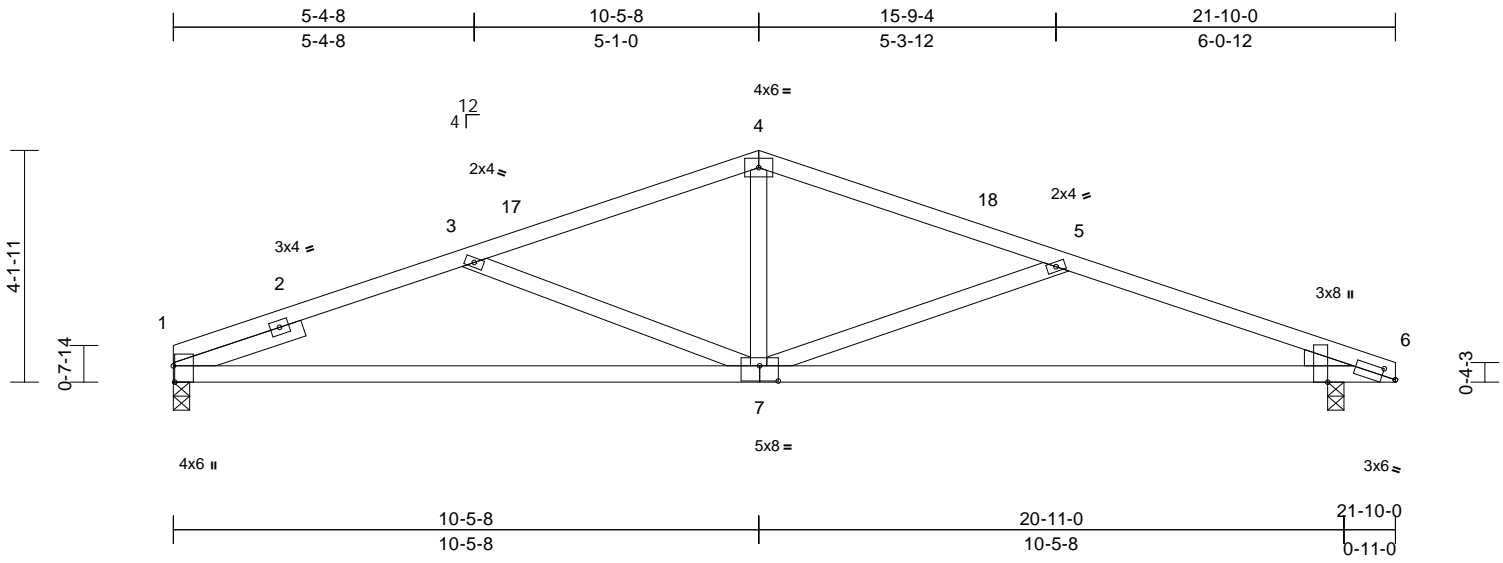
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|------------------------|--------------|----------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss G02 | Truss Type Common | Qty 2 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | 164153329 |
|------------------------|--------------|----------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:36
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Page: 1



Scale = 1:41.2
Plate Offsets (X, Y): [1:0-3-8,Edge], [6:0-3-0,0-1-8], [6:0-0-8,Edge], [7:0-4-0,0-3-4]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|--------------|-----------|-----------------|-----------------|-----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | Vert(LL) | -0.15 | 7-10 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 17.2/20.0 | Lumber DOL | 1.15 | BC | Vert(CT) | -0.33 | 7-10 | >803 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | Horz(CT) | 0.05 | 6 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | |
| BCDL | 10.0 | | | | | | | | | Weight: 94 lb | FT = 20% |

- LUMBER**
- TOP CHORD 2x4 SP No.2
 - BOT CHORD 2x4 SP No.2
 - WEBS 2x4 SP No.3
 - WEDGE Right: 2x4 SP No.3
 - SLIDER Left 2x4 SP No.3 -- 2-5-0
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 4-0-14 oc purlins.
 - BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
- REACTIONS** (size) 1=0-3-8, 6=0-3-8
- Max Horiz 1=-55 (LC 17)
 - Max Uplift 1=-37 (LC 12), 6=-43 (LC 13)
 - Max Grav 1=835 (LC 2), 6=912 (LC 2)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-3=-1621/259, 3-4=-1308/166, 4-5=-1312/165, 5-6=-1704/263
 - BOT CHORD 1-6=-195/1570
 - WEBS 4-7=0/530, 3-7=-442/147, 5-7=-444/152

- 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 1 and 43 lb uplift at joint 6.
- 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

- 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



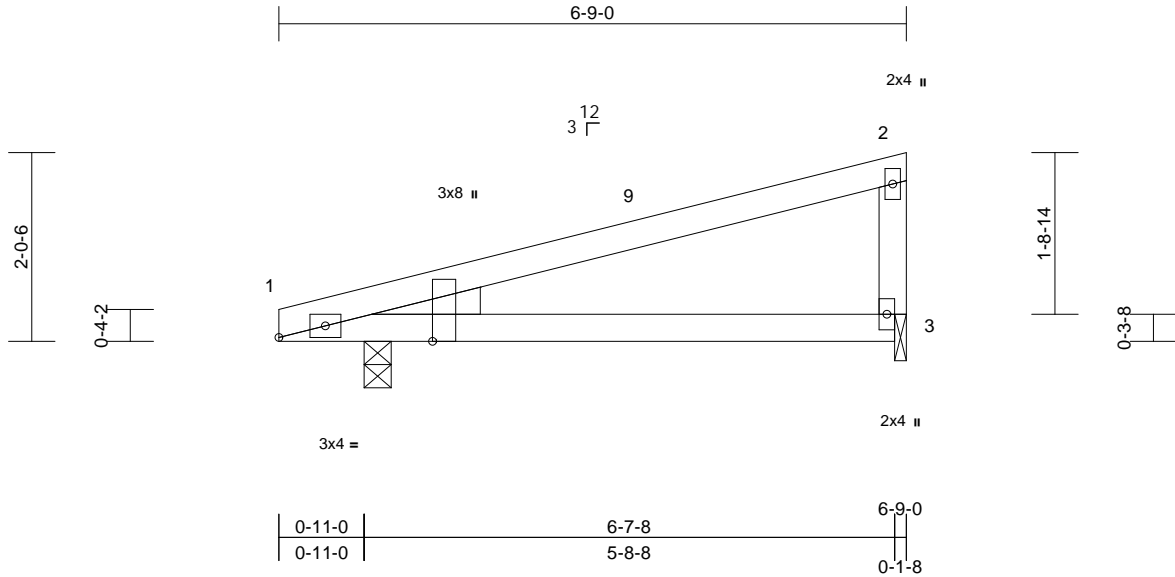
March 12, 2024

| | | | | | | |
|------------------------|--------------|-------------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss M01 | Truss Type Monopitch | Qty 5 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | I64153330 |
|------------------------|--------------|-------------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:36
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Page: 1



Scale = 1:24.8

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.46 | Vert(LL) | -0.05 | 3-8 | >999 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | BC | 0.41 | Vert(CT) | -0.11 | 3-8 | >728 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 1 | 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
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=54 (LC 15)
Max Uplift 1=-20 (LC 12), 3=-21 (LC 16)
Max Grav 1=307 (LC 2), 3=233 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-124/39, 2-3=-155/75
BOT CHORD 1-3=-78/122

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) Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi, Joint 3 SP No.3 crushing capacity of 565 psi.
- 8) 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 21 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 12, 2024

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

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



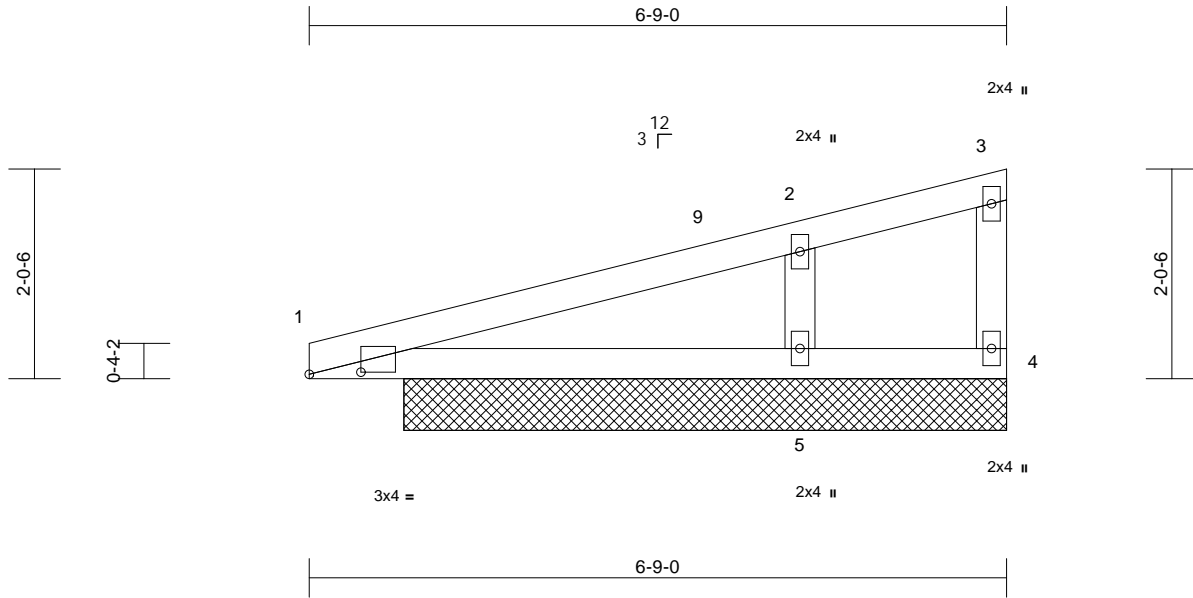
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|------------------------|---------------|---|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss M01G | Truss Type Monopitch Supported Gable | Qty 1 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | 164153331 |
|------------------------|---------------|---|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:36
ID:bE_Q1UWgQuiqs?mCTfYqzxc1wt-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:22.3

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.14 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | BC | 0.09 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.04 | Horiz(TL) | 0.00 | 1 | 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
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) 1=5-10-0, 4=5-10-0, 5=5-10-0, 8=5-10-0
Max Horiz 1=54 (LC 15), 8=54 (LC 15)
Max Uplift 1=9 (LC 12), 5=35 (LC 16), 8=9 (LC 12)
Max Grav 1=216 (LC 2), 4=31 (LC 22), 5=296 (LC 22), 8=216 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-65/44, 2-3=-33/23, 3-4=-27/16
BOT CHORD 1-5=-24/26, 4-5=-24/26
WEBS 2-5=-216/119

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 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1, 35 lb uplift at joint 5 and 9 lb uplift at joint 1.
- 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.

LOAD CASE(S) Standard



March 12, 2024

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

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



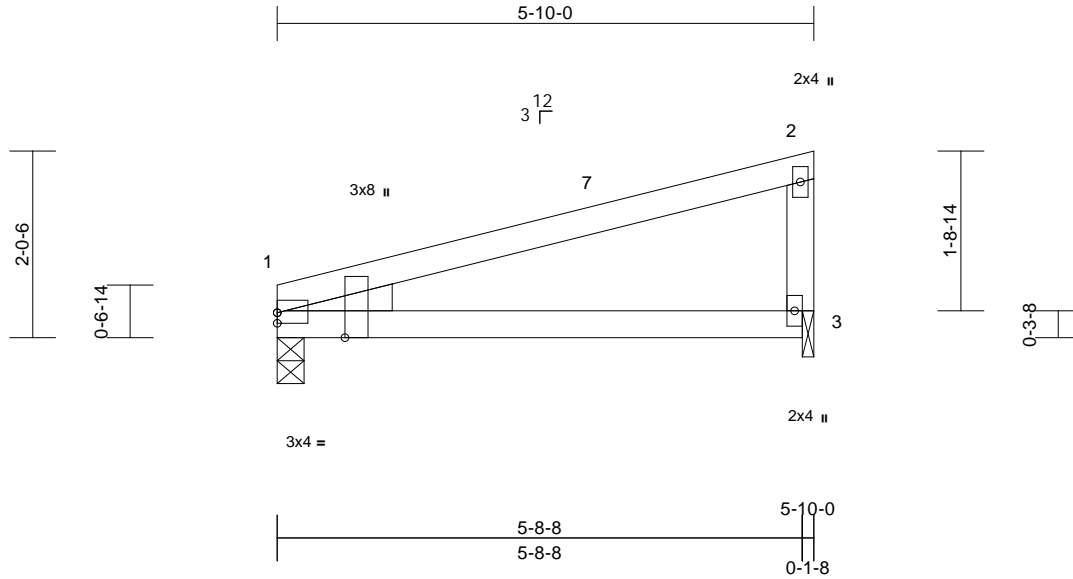
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|------------------------|--------------|-------------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss M02 | Truss Type Monopitch | Qty 1 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | I64153332 |
|------------------------|--------------|-------------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:36
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Page: 1



Scale = 1:25.1

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | TC | 0.46 | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|-----|-------|--------|------|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | BC | 0.43 | Vert(LL) | -0.05 | 3-6 | >999 | 240 | MT20 | 244/190 | |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | WB | 0.00 | Vert(CT) | -0.11 | 3-6 | >600 | 180 | | | |
| TCDL | 10.0 | Rep Stress Incr | YES | Matrix-MP | | Horz(CT) | 0.02 | 1 | n/a | n/a | | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | | | | | | | | | | |
| 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
WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-10-0 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=51 (LC 15)
Max Uplift 1=14 (LC 12), 3=21 (LC 16)
Max Grav 1=228 (LC 2), 3=233 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-153/40, 2-3=-153/80
BOT CHORD 1-3=-88/149

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) Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi, Joint 3 SP No.3 crushing capacity of 565 psi.
- 8) 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1 and 21 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 12, 2024

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

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



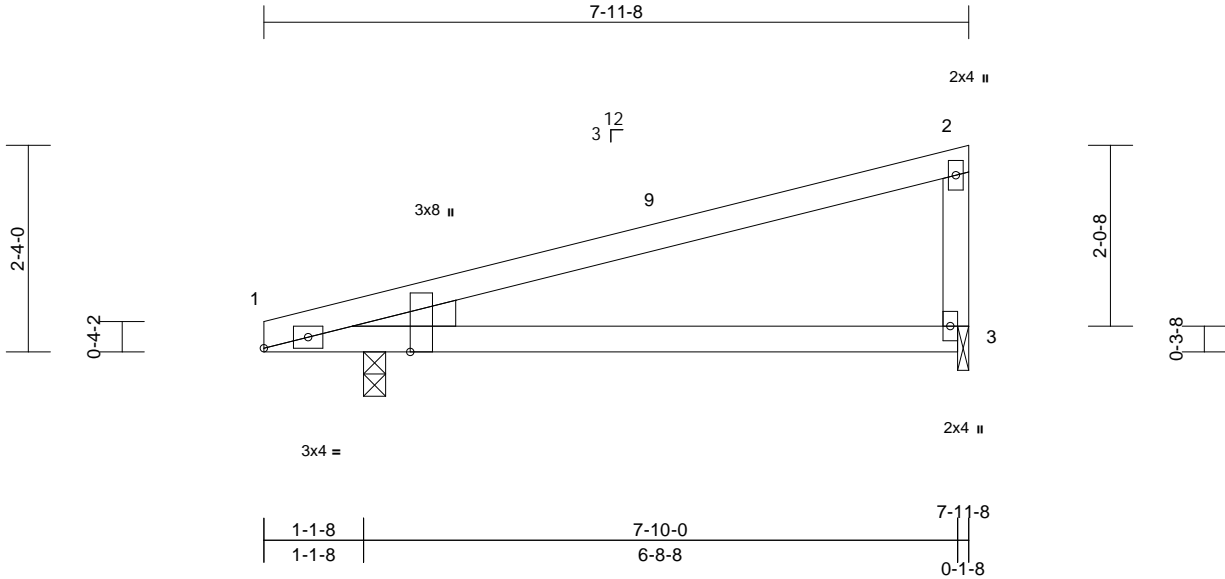
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|------------------------|--------------|-------------------------|-----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss P01 | Truss Type Monopitch | Qty 12 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | I64153333 |
|------------------------|--------------|-------------------------|-----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:37
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Page: 1



Scale = 1:26

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.70 | Vert(LL) | -0.10 | 3-8 | >966 | 240 | MT20 | 244/190 |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | BC | 0.55 | Vert(CT) | -0.21 | 3-8 | >451 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.01 | 1 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 28 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=0-3-0, 3=0-1-8
Max Horiz 1=63 (LC 15)
Max Uplift 1=-24 (LC 12), 3=-25 (LC 16)
Max Grav 1=365 (LC 2), 3=279 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-89/45, 2-3=-190/87
BOT CHORD 1-3=-91/109

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) Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi, Joint 3 SP No.3 crushing capacity of 565 psi.
- 8) 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1 and 25 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 12, 2024

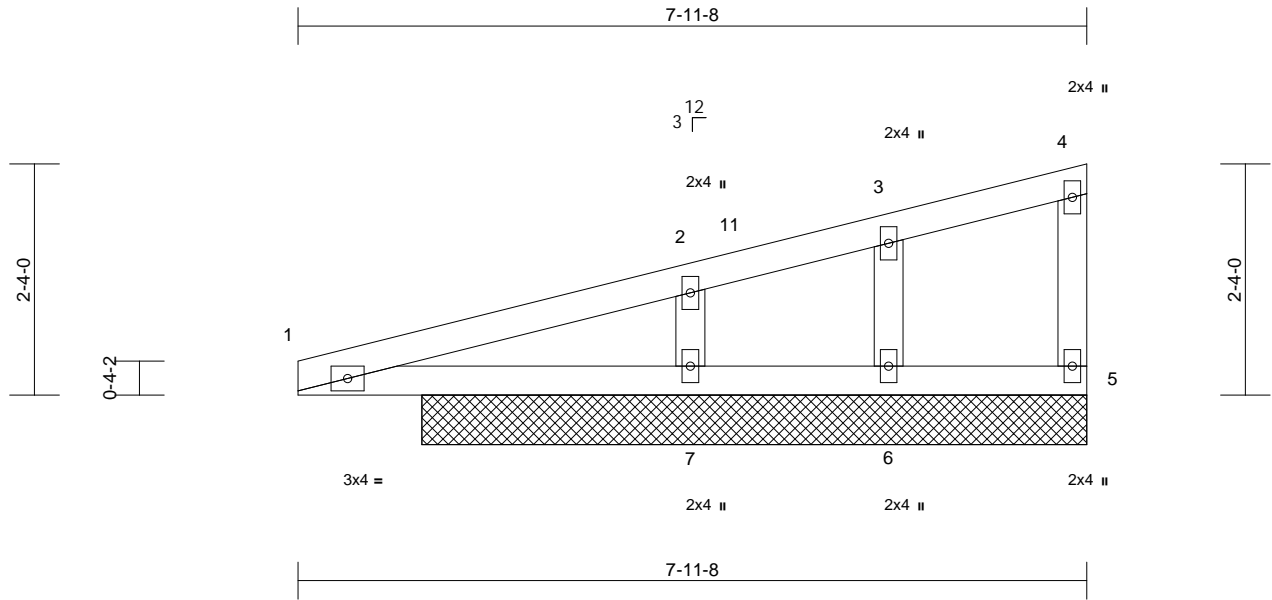
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--|---------------|---|----------|----------|-----------------|---|
| Job ELV A CP 3CG EB | Truss P01G | Truss Type Monopitch Supported Gable | Qty 2 | Ply 1 | Roof A CP EB 3C | 164153334 |
| Builders FirstSource (Apex, NC), Apex, NC - 27523, | | | | | | Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:37 |
| ID:01EREAwuPbw7N5X5gvHzOlyBGjL-RfC?PsB70Hq3NSgPqnL8w3uiTXbGKWrCDoi7J4zJC?f | | | | | | Page: 1 |



Scale = 1:23.2

| 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 | 0.77 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 18.7/20.0 | Lumber DOL | 1.15 | BC | 0.77 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.08 | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 30 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) 5=6-8-8, 6=6-8-8, 7=6-8-8
Max Horiz 7=63 (LC 15)
Max Uplift 5=-4 (LC 16), 6=-287 (LC 2), 7=-40 (LC 12)
Max Grav 5=143 (LC 22), 6=-5 (LC 12), 7=771 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-83/64, 2-3=-71/11, 3-4=-31/33, 4-5=-88/32
BOT CHORD 1-7=-50/100, 6-7=-27/30, 5-6=-27/30
WEBS 3-6=0/122, 2-7=-429/129

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.

- 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
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 5, 287 lb uplift at joint 6 and 40 lb uplift at joint 7.
- N/A
- 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 12, 2024

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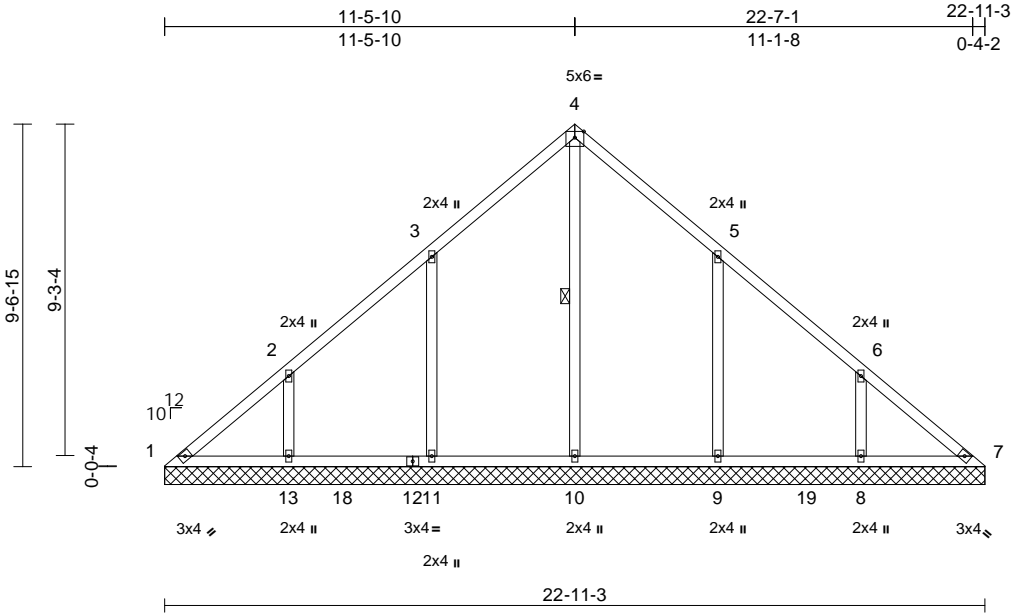
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|------------------------|--------------|----------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss V01 | Truss Type Valley | Qty 1 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | 164153335 |
|------------------------|--------------|----------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:37
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Page: 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 | 0.21 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.16 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.18 | Horiz(TL) | 0.01 | 7 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 114 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. |
| | WEBS | 1 Row at midpt 4-10 |
| REACTIONS | (size) | 1=22-11-3, 7=22-11-3, 8=22-11-3, 9=22-11-3, 10=22-11-3, 11=22-11-3, 13=22-11-3 |
| | Max Horiz | 1=-182 (LC 10) |
| | Max Uplift | 1=-33 (LC 10), 8=-91 (LC 15), 9=-123 (LC 15), 11=-123 (LC 14), 13=-95 (LC 14) |
| | Max Grav | 1=145 (LC 26), 7=118 (LC 28), 8=356 (LC 26), 9=472 (LC 26), 10=423 (LC 28), 11=471 (LC 25), 13=360 (LC 25) |
| FORCES | (lb) - Maximum Compression/Maximum Tension | |
| | TOP CHORD | 1-2=-182/167, 2-3=-136/133, 3-4=-135/161, 4-5=-135/153, 5-6=-92/89, 6-7=-156/122 |
| | BOT CHORD | 1-13=-104/148, 11-13=-104/144, 10-11=-104/144, 9-10=-104/144, 8-9=-104/144, 7-8=-104/144 |
| | WEBS | 4-10=-221/0, 3-11=-277/173, 2-13=-239/136, 5-9=-277/173, 6-8=-237/134 |

- 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
- 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.
- 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
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 1, 123 lb uplift at joint 11, 95 lb uplift at joint 13, 123 lb uplift at joint 9 and 91 lb uplift at joint 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



March 12, 2024

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

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



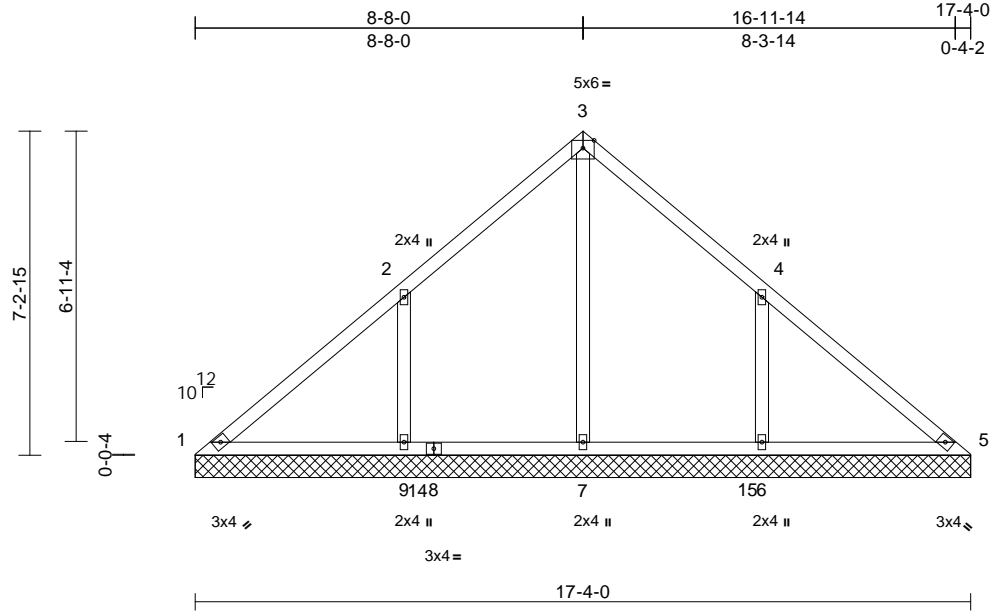
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|------------------------|--------------|----------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss V03 | Truss Type Valley | Qty 1 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | 164153337 |
|------------------------|--------------|----------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:38
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Page: 1



Scale = 1:51.5

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|---------------|----------|---------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.28 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.18 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.30 | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | Weight: 78 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=17-4-0, 5=17-4-0, 6=17-4-0, 7=17-4-0, 9=17-4-0
Max Horiz 1=-137 (LC 10)
Max Uplift 1=-14 (LC 10), 6=-134 (LC 15), 9=-137 (LC 14)
Max Grav 1=111 (LC 26), 5=102 (LC 30), 6=475 (LC 26), 7=488 (LC 25), 9=478 (LC 25)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-126/230, 2-3=-24/170, 3-4=-13/164, 4-5=-105/194
BOT CHORD 1-9=-151/116, 7-9=-151/114, 6-7=-151/114, 5-6=-151/114
WEBS 3-7=-329/0, 2-9=-305/175, 4-6=-304/174

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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1, 137 lb uplift at joint 9 and 134 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 12, 2024

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

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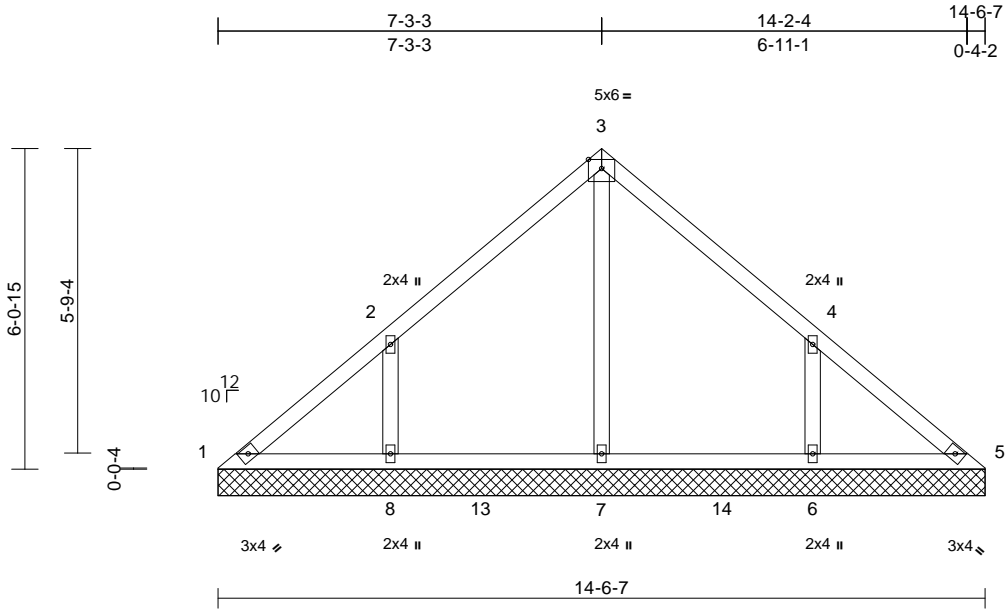
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|------------------------|--------------|----------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss V04 | Truss Type Valley | Qty 1 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | 164153338 |
|------------------------|--------------|----------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:38
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Page: 1



Scale = 1:43.7

| 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 0.20 | TC | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) 10.1/20.0 | Lumber DOL 1.15 | BC 0.15 | BC | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL 10.0 | Rep Stress Incr YES | WB 0.14 | WB | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCLL 0.0* | Code IRC2015/TPI2014 | Matrix-MS | Matrix-MS | | | | | | | |
| BCDL 10.0 | | | | | | | | | Weight: 63 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=14-6-7, 5=14-6-7, 6=14-6-7, 7=14-6-7, 8=14-6-7
Max Horiz 1=-114 (LC 10)
Max Uplift 1=-15 (LC 10), 6=-111 (LC 15), 8=-113 (LC 14)
Max Grav 1=113 (LC 26), 5=95 (LC 2), 6=369 (LC 26), 7=386 (LC 25), 8=372 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-136/121, 2-3=-101/102, 3-4=-84/90, 4-5=-111/92
BOT CHORD 1-8=-65/113, 7-8=-65/83, 6-7=-65/83, 5-6=-65/86
WEBS 3-7=-219/0, 2-8=-263/153, 4-6=-261/152

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.

- 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
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1, 113 lb uplift at joint 8 and 111 lb uplift at joint 6.
- 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 12, 2024

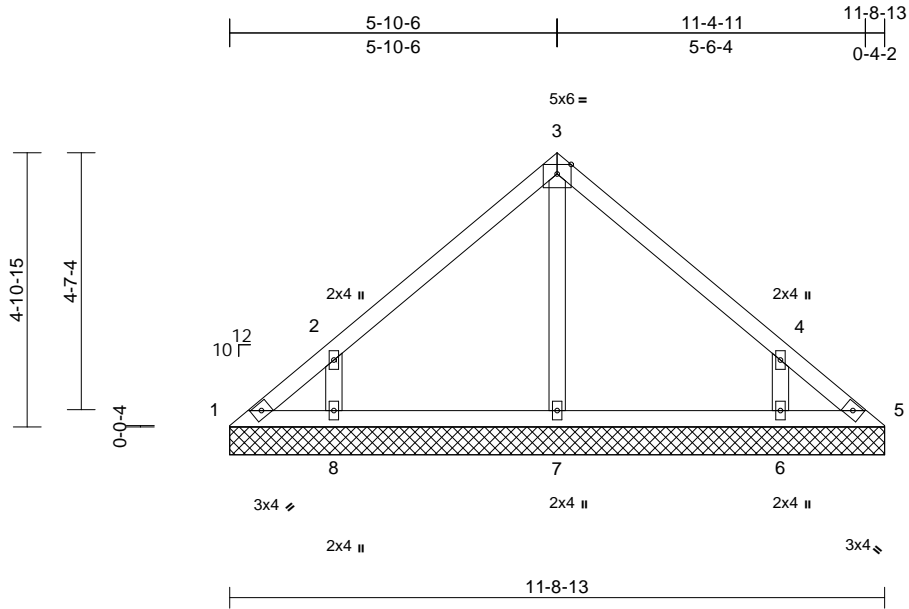
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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| | | | | | | |
|--|--------------|----------------------|----------|----------|-----------------|---|
| Job ELV A CP 3CG EB | Truss V05 | Truss Type Valley | Qty 1 | Ply 1 | Roof A CP EB 3C | 164153339 |
| Builders FirstSource (Apex, NC), Apex, NC - 27523, | | | | | | Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:38 |
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Scale = 1:41.3

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.00 | TC | 0.18 | 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 | 0.06 | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 48 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 10-0-0 oc bracing.

REACTIONS

(size) 1=11-8-13, 5=11-8-13, 6=11-8-13, 7=11-8-13, 8=11-8-13
Max Horiz 1=-91 (LC 10)
Max Uplift 1=-27 (LC 10), 5=-4 (LC 11), 6=-96 (LC 15), 8=-99 (LC 14)
Max Grav 1=78 (LC 26), 5=61 (LC 25), 6=310 (LC 26), 7=238 (LC 2), 8=313 (LC 25)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-97/83, 2-3=-142/86, 3-4=-139/82, 4-5=-77/53
BOT CHORD 1-8=-24/67, 7-8=-21/67, 6-7=-21/67, 5-6=-21/67
WEBS 3-7=-151/0, 2-8=-261/159, 4-6=-260/158

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.

- 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
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1, 4 lb uplift at joint 5, 99 lb uplift at joint 8 and 96 lb uplift at joint 6.
- 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 12, 2024

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

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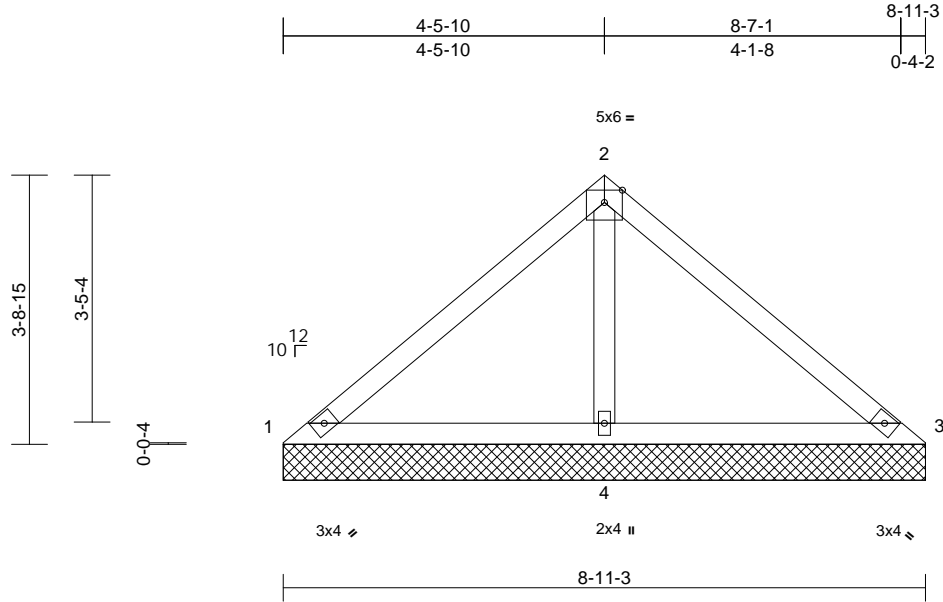
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|------------------------|--------------|----------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss V06 | Truss Type Valley | Qty 1 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | 164153340 |
|------------------------|--------------|----------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:39
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Page: 1



Scale = 1:32.1

| 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 | 0.27 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | 0.24 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.14 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 34 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 8-11-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=8-11-3, 3=8-11-3, 4=8-11-3
Max Horiz 1=-69 (LC 12)
Max Uplift 1=-30 (LC 30), 3=-30 (LC 29), 4=-58 (LC 14)
Max Grav 1=60 (LC 29), 3=60 (LC 30), 4=676 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-75/286, 2-3=-75/286
BOT CHORD 1-4=-221/115, 3-4=-221/115
WEBS 2-4=-503/135

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.

- 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
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1, 30 lb uplift at joint 3 and 58 lb uplift at joint 4.
- 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 12, 2024

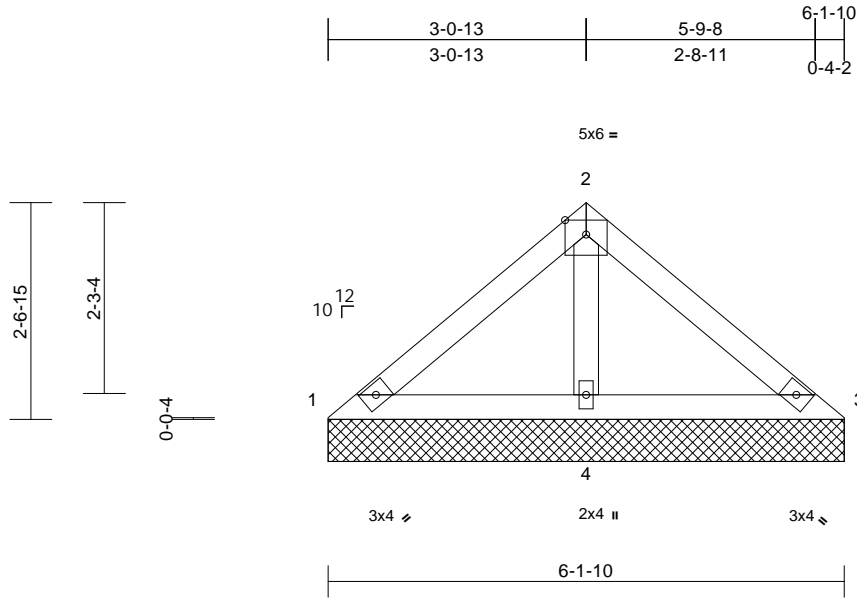
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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



818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--|--------------|----------------------|----------|----------|-----------------|---|
| Job ELV A CP 3CG EB | Truss V07 | Truss Type Valley | Qty 1 | Ply 1 | Roof A CP EB 3C | 164153341 |
| Builders FirstSource (Apex, NC), Apex, NC - 27523, | | | | | | Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:39 |
| ID:Ok_LxAhg?8Sx9nNkZcV2ZQzIBSo-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?F | | | | | | Page: 1 |



Scale = 1:27.4

| 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) | 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 | 0.06 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 22 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 6-1-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=6-1-10, 3=6-1-10, 4=6-1-10
Max Horiz 1=-46 (LC 10)
Max Uplift 4=-22 (LC 14)
Max Grav 1=66 (LC 29), 3=66 (LC 30), 4=394 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-57/138, 2-3=-57/138
BOT CHORD 1-4=-109/64, 3-4=-109/64
WEBS 2-4=-265/63

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.
- 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

- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 4.
- 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 12, 2024

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ENGINEERING BY
TRENCO
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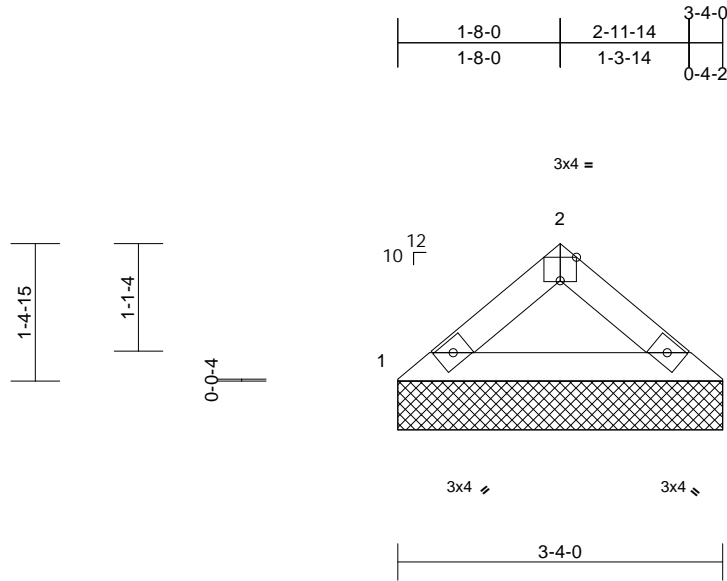
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|------------------------|--------------|----------------------|----------|----------|---|-----------|
| Job ELV A CP 3CG EB | Truss V08 | Truss Type Valley | Qty 1 | Ply 1 | Roof A CP EB 3C Job Reference (optional) | I64153342 |
|------------------------|--------------|----------------------|----------|----------|---|-----------|

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 11 10:15:39
ID:h4v?PZm4MIKyVsP4Ta7hLuzlBSh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:23.6

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 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Ps/Pf) | 10.1/20.0 | Lumber DOL | 1.15 | BC | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2015/TPI2014 | Matrix-MP | | | | | | | |
| BCDL | 10.0 | | | | | | | | | Weight: 10 lb | FT = 20% |

LUMBER

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

BRACING

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

REACTIONS (size) 1=3-4-0, 3=3-4-0

Max Horiz 1=24 (LC 12)
Max Uplift 1=2 (LC 14), 3=2 (LC 15)
Max Grav 1=133 (LC 2), 3=133 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-175/21, 2-3=-175/21
BOT CHORD 1-3=-10/131

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.
- 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
- Roof design snow load has been reduced to account for slope.

- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 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.
- 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 12, 2024

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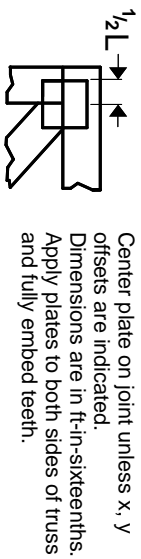
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Symbols

PLATE LOCATION AND ORIENTATION



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



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



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

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

PLATE SIZE

4 X 4

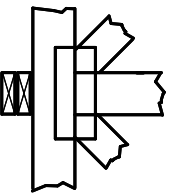
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



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

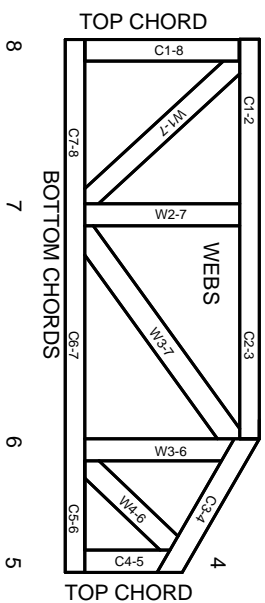
Industry Standards:

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

Numbering System



1 TOP CHORDS
2 Joint ID
3 typ.



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

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

Product Code Approvals

ICC-ES Reports:

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

Design General Notes

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

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

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MITek

ENGINEERING BY
TRENGO
A MITek Affiliate

MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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