

|                              |             |  |          |          |                          |
|------------------------------|-------------|--|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>A1 | Truss Type<br>Piggyback Base Supported Gable | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|--|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:27

Page: 1

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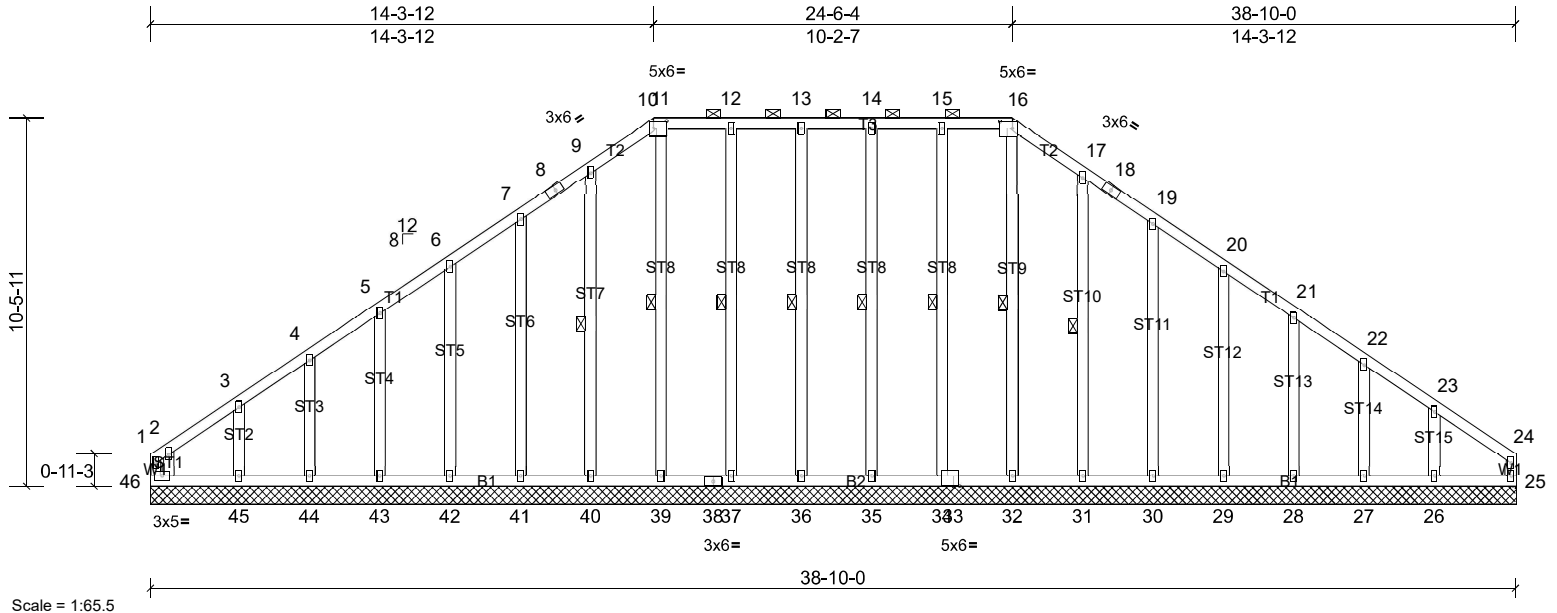


Plate Offsets (X, Y): [10:0-4-8,0-2-8], [16:0-4-4,0-2-4], [33:0-2-0,0-0-4]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.11 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20           | 244/190  |
| Snow (Pf/Pg) | 18.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.07 | Vert(TL)  | n/a   | -      | n/a | 999    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.14 | Horiz(TL) | 0.01  | 25     | n/a | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MR |      |           |       |        |     |        |                |          |
| BCDL         | 10.0      |                 |                 |           |      |           |       |        |     |        |                |          |
|              |           |                 |                 |           |      |           |       |        |     |        | Weight: 311 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 (6-0-0 max.): 10-16.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 16-32, 15-34, 14-35, 13-36, 12-37, 11-39, 9-40, 17-31

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

**REACTIONS** All bearings 38-10-0.  
(lb) - Max Horiz 46=-197 (LC 9)  
Max Uplift All uplift 100 (lb) or less at joint(s) 25, 26, 27, 28, 29, 30, 31, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 46  
Max Grav All reactions 250 (lb) or less at joint (s) 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 7-8=-173/250, 8-9=-161/256, 9-10=-199/302, 10-11=-171/271, 11-12=-171/271, 12-13=-171/271, 13-14=-171/271, 14-15=-171/271, 15-16=-171/271, 16-17=-201/304

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 0-1-12 to 4-0-6, Exterior(2N) 4-0-6 to 14-3-12, Corner(3R) 14-3-12 to 18-2-6, Exterior(2N) 18-2-6 to 24-6-4, Corner(3R) 24-6-4 to 28-6-4, Exterior(2N) 28-6-4 to 38-8-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 9) Gable studs spaced at 2-0-0 oc.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 46, 25, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 31, 30, 29, 28, 27, 26.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

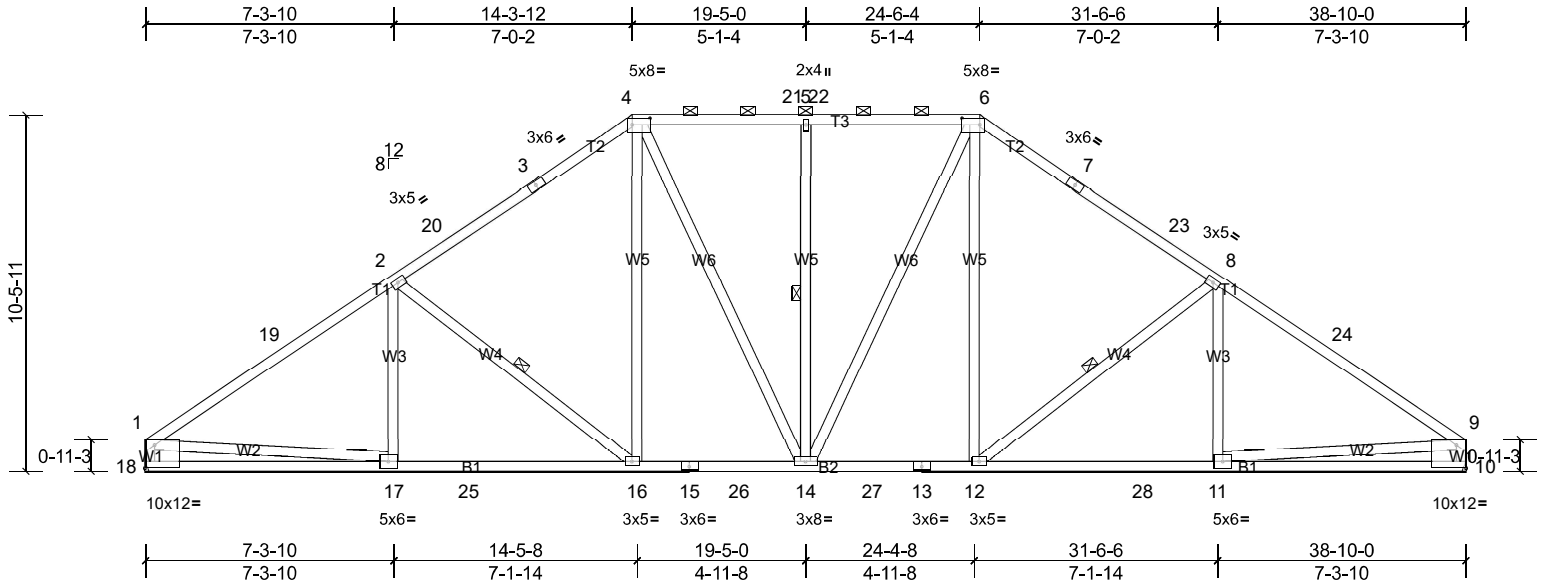
|                              |             |                              |          |          |                          |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>A2 | Truss Type<br>Piggyback Base | Qty<br>4 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:27

Page: 1

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Scale = 1:67.8

Plate Offsets (X, Y): [4:0-6-4,0-2-4], [6:0-6-4,0-2-4], [10:Edge,0-8-2], [18:Edge,0-8-2]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP                    |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|--------|------|--------|-------------------------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.79 | Vert(LL) | -0.14 | 16-17  | >999 | 240    | MT20 244/190            |
| Snow (Pf/Pg) | 18.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.78 | Vert(CT) | -0.26 | 16-17  | >999 | 180    |                         |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.67 | Horz(CT) | 0.08  | 10     | n/a  | n/a    |                         |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |        |      |        |                         |
| BCDL         | 10.0      |                 |                 |            |      |          |       |        |      |        | Weight: 265 lb FT = 20% |

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

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-4-9 max.): 4-6.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 2-16, 5-14, 8-12

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

**REACTIONS** (lb/size) 10=1356/ Mechanical, (min. 0-1-8), 18=1356/ Mechanical, (min. 0-1-8)  
 Max Horiz 18=-197 (LC 11)  
 Max Grav 10=1725 (LC 25), 18=1725 (LC 24)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-19=-2397/72, 2-19=-2219/99, 2-20=-1973/133, 3-20=-1860/156, 3-4=-1857/175, 4-21=-1664/188, 5-21=-1664/188, 5-22=-1664/188, 6-22=-1664/188, 6-7=-1857/175, 7-23=-1860/156, 8-23=-1973/133, 8-24=-2219/99, 9-24=-2397/72, 1-18=-1609/87, 9-10=-1609/87  
 BOT CHORD 17-18=-178/477, 17-25=-58/2024, 16-25=-58/2024, 15-16=0/1582, 15-26=0/1582, 14-26=0/1582, 14-27=0/1555, 13-27=0/1555, 12-13=0/1555, 12-28=-13/1921, 11-28=-13/1921, 10-11=-49/335  
 WEBS 2-16=-567/110, 4-16=0/602, 4-14=-104/352, 5-14=-330/83, 6-14=-104/352, 6-12=0/602, 8-12=-567/110, 1-17=-7/1618, 9-11=-5/1618

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 4-0-6, Interior (1) 4-0-6 to 14-3-12, Exterior(2R) 14-3-12 to 19-9-11, Interior (1) 19-9-11 to 24-6-4, Exterior(2R) 24-6-4 to 30-0-2, Interior (1) 30-0-2 to 38-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Provide adequate drainage to prevent water ponding.
- 5) \* 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.
- 6) Refer to girder(s) for truss to truss connections.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

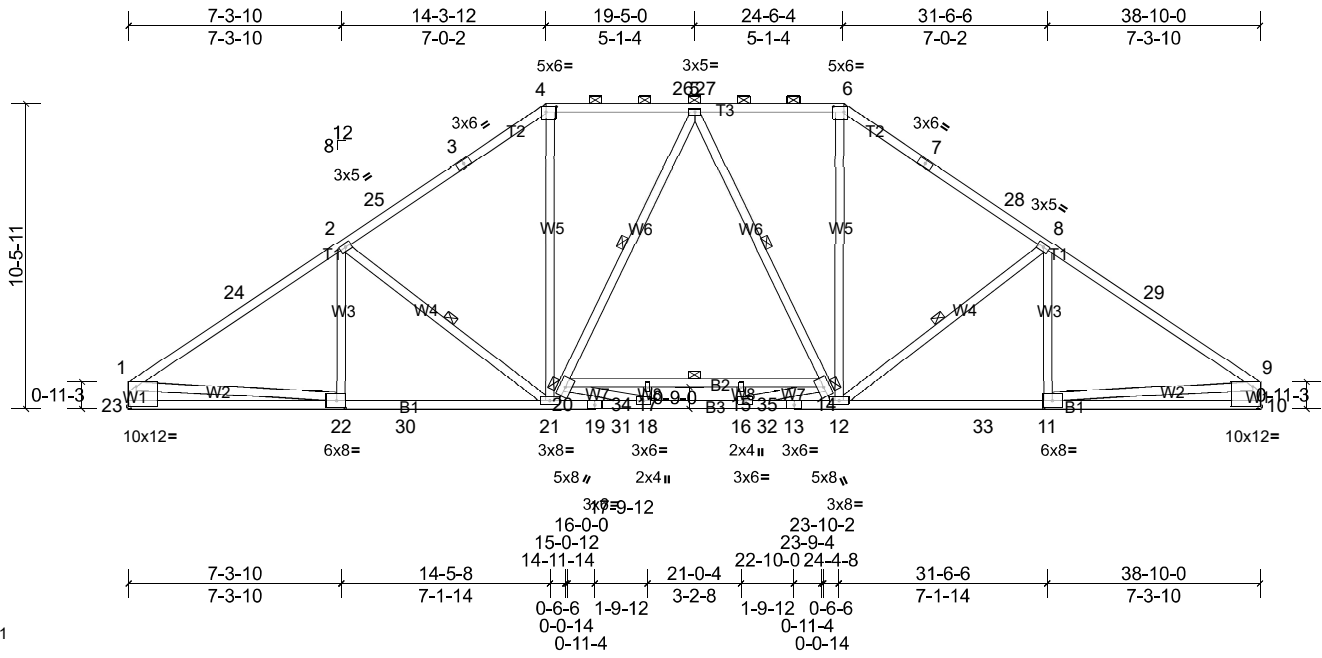
|                              |             |                              |          |          |                          |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>A3 | Truss Type<br>Piggyback Base | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:28

Page: 1

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Scale = 1:79.1

Plate Offsets (X, Y): [4:0-4-4,0-2-4], [6:0-4-4,0-2-4], [10:Edge,0-8-2], [11:0-3-8,0-3-0], [22:0-3-8,0-3-0], [23:Edge,0-8-2]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in (loc) | l/defl | L/d   | PLATES | GRIP                    |
|--------------|-----------|-----------------|-----------------|------------|------|----------|--------|-------|--------|-------------------------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.74 | Vert(LL) | -0.17  | 16-18 | >999   | 240                     |
| Snow (Pf/Pg) | 18.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.87 | Vert(CT) | -0.34  | 16-18 | >999   | 180                     |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.81 | Horz(CT) | 0.07   | 10    | n/a    | n/a                     |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |        |       |        |                         |
| BCDL         | 10.0      |                 |                 |            |      |          |        |       |        |                         |
|              |           |                 |                 |            |      |          |        |       |        | Weight: 273 lb FT = 20% |

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* T3:2x4 SP No.2  
BOT CHORD 2x4 SP 2400F 2.0E \*Except\* B2:2x4 SP No.1  
WEBS 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-0 max.): 4-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 5-0-0 oc bracing: 14-20  
WEBS 1 Row at midpt 2-21, 8-12, 5-20, 5-14

**REACTIONS** (lb/size) 10=1546/ Mechanical, (min. 0-1-8), 23=1546/ Mechanical, (min. 0-1-8)  
Max Horiz 23=-197 (LC 9)  
Max Grav 10=2013 (LC 25), 23=2013 (LC 24)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-24=-2844/0, 2-24=-2665/0, 2-25=-2463/0, 3-25=-2349/0, 3-4=-2347/0, 4-26=-1969/0, 5-26=-1969/0, 5-27=-1969/0, 6-27=-1969/0, 6-7=-2347/0, 7-28=-2349/0, 8-28=-2463/0, 8-29=-2665/0, 9-29=-2844/0, 1-23=-1890/0, 9-10=-1890/0  
BOT CHORD 22-23=-163/522, 22-30=0/2395, 21-30=0/2395, 19-21=0/2204, 19-31=0/2204, 18-31=0/2204, 16-18=0/3348, 16-32=0/2204, 13-32=0/2204, 12-13=0/2204, 12-33=0/2292, 11-33=0/2292, 10-11=-35/379, 20-34=-1530/0, 17-34=-1530/0, 15-17=-1530/0, 15-35=-1530/0, 14-35=-1530/0  
WEBS 2-21=-521/134, 4-21=0/1030, 6-12=0/1030, 8-12=-521/134, 1-22=0/1945, 9-11=0/1945, 20-21=-634/0, 5-20=-304/134, 5-14=-304/134, 12-14=-634/0, 14-16=0/1378, 18-20=0/1378

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 4-0-6, Interior (1) 4-0-6 to 14-3-12, Exterior(2R) 14-3-12 to 19-9-11, Interior (1) 19-9-11 to 24-6-4, Exterior(2R) 24-6-4 to 30-0-2, Interior (1) 30-0-2 to 38-8-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 200.0lb AC unit load placed on the bottom chord, 19-5-0 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
- \* 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.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

**NOTES**

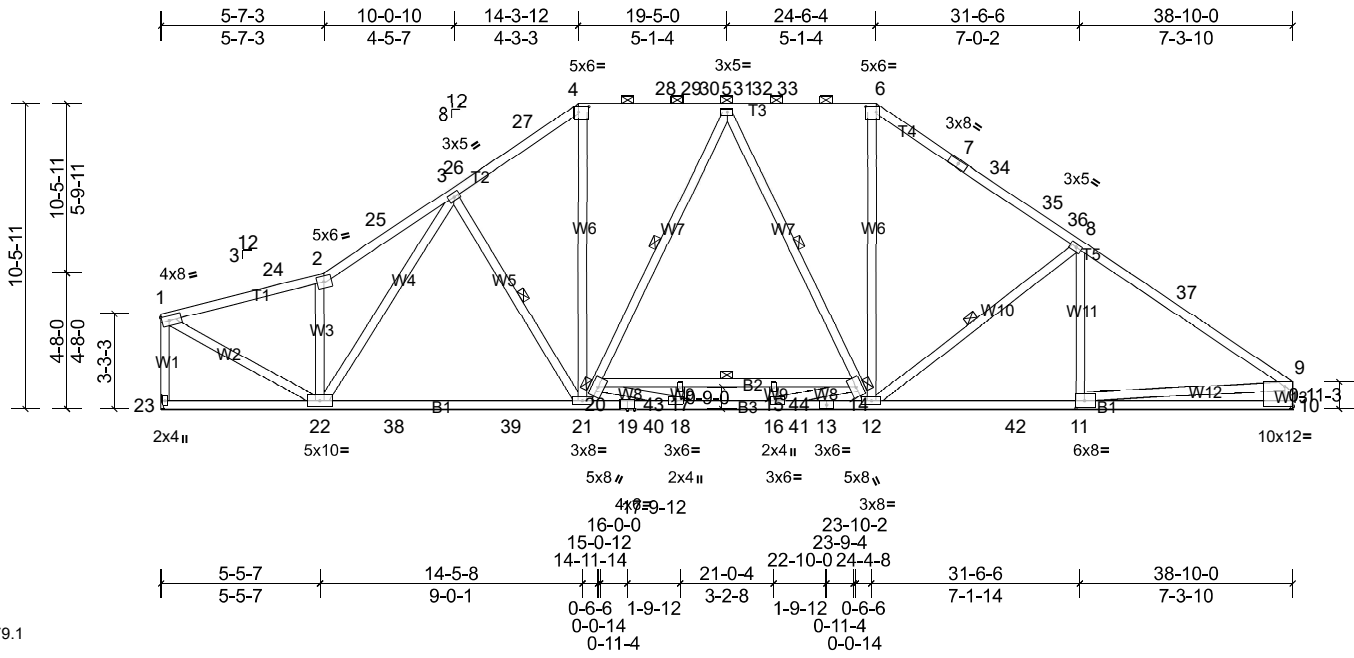
|                              |             |                              |          |          |                          |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>A4 | Truss Type<br>Piggyback Base | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:28

Page: 1

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Scale = 1:79.1

Plate Offsets (X, Y): [4:0-4-4,0-2-4], [6:0-4-4,0-2-4], [10:Edge,0-8-2], [11:0-3-8,0-3-0]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in (loc) | l/defl | L/d   | PLATES | GRIP |                |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|--------|-------|--------|------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.64 | Vert(LL) | -0.23  | 21-22 | >999   | 240  | MT20           | 244/190  |
| Snow (Pf/Pg) | 18.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.77 | Vert(CT) | -0.40  | 21-22 | >999   | 180  |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.86 | Horz(CT) | 0.07   | 10    | n/a    | n/a  |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |        |       |        |      |                |          |
| BCDL         | 10.0      |                 |                 |            |      |          |        |       |        |      |                |          |
|              |           |                 |                 |            |      |          |        |       |        |      | Weight: 283 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* T4,T5:2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP 2400F 2.0E \*Except\* B2:2x4 SP No.1  
WEBS 2x4 SP No.3 \*Except\* W2:2x4 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-1-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-12 max.): 4-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:  
5-2-0 oc bracing: 14-20  
WEBS 1 Row at midpt 8-12, 3-21, 5-20, 5-14

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 11-1-12 to 15-0-6, Interior (1) 15-0-6 to 25-3-12, Exterior(2R) 25-3-12 to 29-2-6, Interior (1) 29-2-6 to 35-6-4, Exterior(2R) 35-6-4 to 39-4-13, Interior (1) 39-4-13 to 49-8-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33  
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.  
4) Unbalanced snow loads have been considered for this design.  
5) 200.0lb AC unit load placed on the bottom chord, 19-5-0 from left end, supported at two points, 5-0-0 apart.  
6) Provide adequate drainage to prevent water ponding.  
7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.  
8) Refer to girder(s) for truss to truss connections.

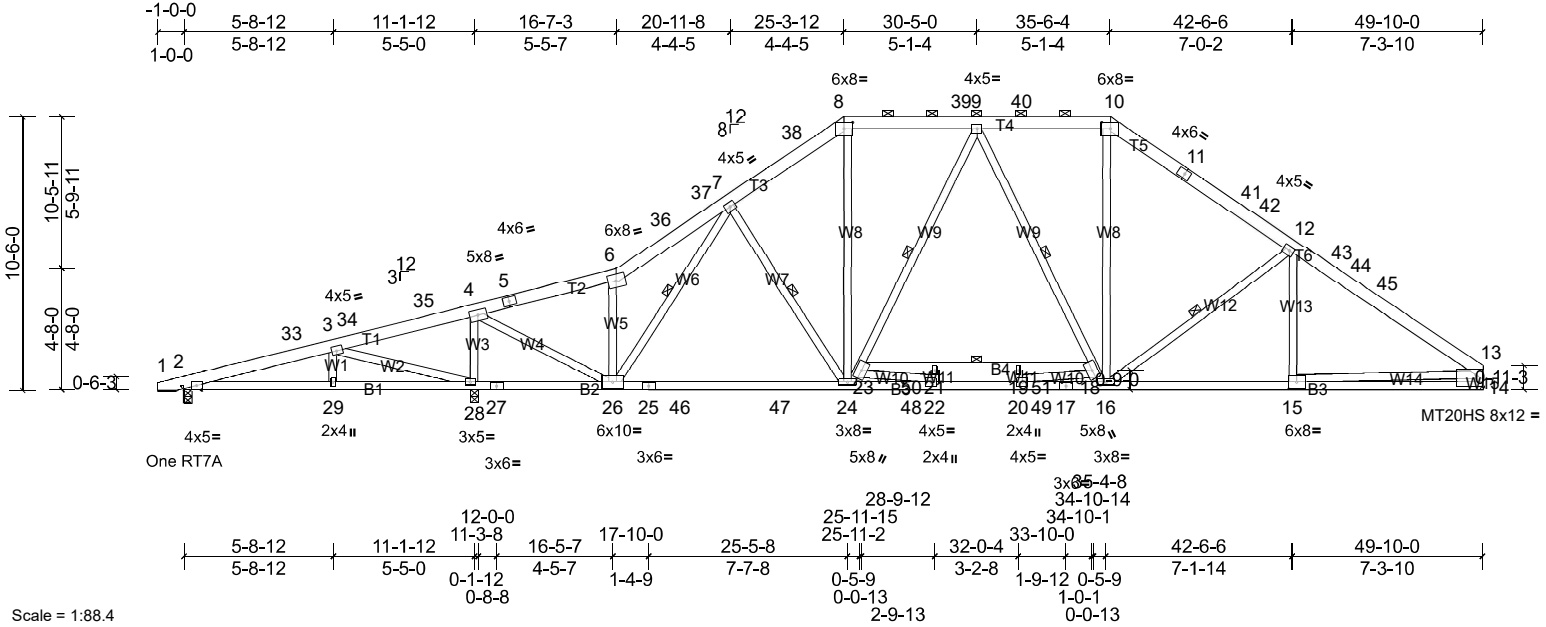
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.  
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

**REACTIONS** (lb/size) 10=1546/ Mechanical, (min. 0-1-8), 23=1546/ Mechanical, (min. 0-1-8)  
Max Horiz 23=193 (LC 12)  
Max Grav 10=2084 (LC 53), 23=2023 (LC 3)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-24=-2365/110, 2-24=-2340/118, 2-25=-2852/217, 3-25=-2766/234, 3-26=-2488/150, 26-27=-2472/166, 4-27=-2376/179, 4-28=-1998/192, 28-29=-1998/192, 29-30=-1998/192, 5-30=-1998/192, 5-31=-1995/191, 31-32=-1995/191, 32-33=-1995/191, 6-33=-1995/191, 6-7=-2375/168, 7-34=-2381/149, 34-35=-2418/142, 35-36=-2525/126, 8-36=-2544/121, 8-37=-2786/143, 9-37=-2976/116, 9-10=-1960/141, 1-23=-1960/127

|                              |             |                              |          |          |                          |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>A5 | Truss Type<br>Piggyback Base | Qty<br>3 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|



Scale = 1:88.4

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

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in (loc) | l/defl | L/d   | PLATES | GRIP           |          |         |
|--------------|-----------|-----------------|-----------------|------------|------|----------|--------|-------|--------|----------------|----------|---------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.72 | Vert(LL) | -0.25  | 24-26 | >999   | 240            | MT20     | 244/190 |
| Snow (Pf/Pg) | 18.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.92 | Vert(CT) | -0.43  | 24-26 | >999   | 180            | MT20HS   | 187/143 |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.76 | Horz(CT) | 0.07   | 14    | n/a    | n/a            |          |         |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |        |       |        |                |          |         |
| BCDL         | 10.0      |                 |                 |            |      |          |        |       |        |                |          |         |
|              |           |                 |                 |            |      |          |        |       |        | Weight: 373 lb | FT = 20% |         |

**LUMBER**  
TOP CHORD 2x6 SP No.2 \*Except\* T4:2x6 SP 2400F 2.0E  
BOT CHORD 2x4 SP No.2 \*Except\* B3:2x4 SP No.1  
WEBS 2x4 SP No.3 \*Except\* W4:2x4 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-10.  
BOT CHORD Rigid ceiling directly applied or 5-0-13 oc bracing. Except:  
4-9-0 oc bracing: 18-23  
WEBS 1 Row at midpt 9-24, 9-16, 12-16, 7-24, 7-26

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

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-7-11 to 4-4-2, Interior (1) 4-4-2 to 25-3-12, Exterior(2R) 25-3-12 to 30-5-0, Interior (1) 30-5-0 to 35-6-4, Exterior(2R) 35-6-4 to 40-6-0, Interior (1) 40-6-0 to 49-8-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33  
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.  
4) Unbalanced snow loads have been considered for this design.  
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.  
6) 200.0lb AC unit load placed on the bottom chord, 30-5-0 from left end, supported at two points, 5-0-0 apart.  
7) Provide adequate drainage to prevent water ponding.  
8) All plates are MT20 plates unless otherwise indicated.

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) Refer to girder(s) for truss to truss connections.  
11) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 28. This connection is for uplift only and does not consider lateral forces.  
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.  
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

**REACTIONS** (lb/size) 2=164/0-3-8, (min. 0-1-8), 14=1472/ Mechanical, (min. 0-1-8), 28=2236/0-3-8, (min. 0-3-7)  
Max Horiz 2=198 (LC 14)  
Max Uplift 2=74 (LC 11)  
Max Grav 2=224 (LC 59), 14=1975 (LC 54), 28=2893 (LC 3)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-33=-121/447, 3-33=-26/474, 3-34=-81/1124, 34-35=-73/1127, 4-35=-66/1183, 4-5=-1703/82, 5-6=-1695/96, 6-36=-2040/186, 36-37=-1971/188, 7-37=-1901/203, 7-38=-2239/164, 8-38=-2124/182, 8-39=-1793/192, 9-39=-1793/192, 9-40=-1868/209, 10-40=-1868/209, 10-11=-2218/175, 11-41=-2229/156, 41-42=-2304/137, 12-42=-2386/133, 12-43=-2645/152, 43-44=-2704/137, 44-45=-2744/131, 13-45=-2834/124, 13-14=-1852/149

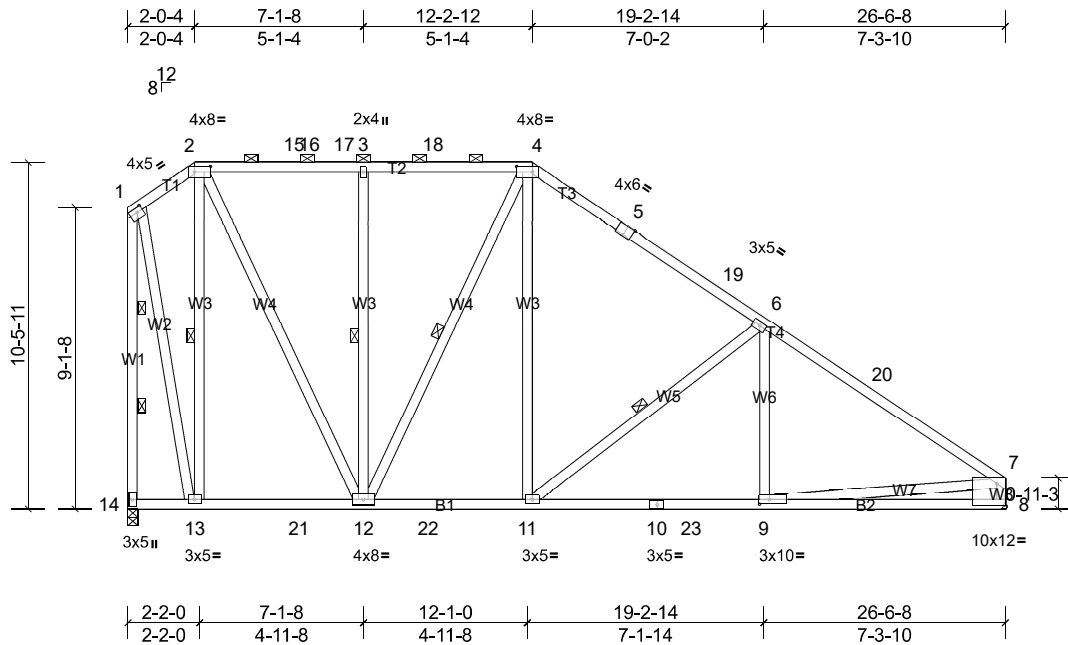
|                              |             |                              |          |          |                          |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>A6 | Truss Type<br>Piggyback Base | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:29

Page: 1

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Scale = 1:69.7

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

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.98 | Vert(LL) | -0.10 | 9-11   | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 18.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.66 | Vert(CT) | -0.18 | 9-11   | >999 | 180    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.48 | Horz(CT) | 0.03  | 8      | n/a  | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |            |      |          |       |        |      |        |                |          |
|              |           |                 |                 |            |      |          |       |        |      |        | Weight: 219 lb | FT = 20% |

- LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3
- BRACING**  
TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 2-13, 3-12, 4-12, 6-11  
WEBS 2 Rows at 1/3 pts 1-14

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

- REACTIONS** (lb/size) 8=916/ Mechanical, (min. 0-1-8), 14=964/0-3-8, (min. 0-1-8)  
Max Horiz 14=-281 (LC 13)  
Max Grav 8=1248 (LC 49), 14=1229 (LC 44)
- FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-353/219, 2-15=-648/197, 15-16=-648/197, 16-17=-648/197, 3-17=-648/197, 3-18=-648/197, 4-18=-648/197, 4-5=-929/197, 5-19=-937/177, 6-19=-1098/154, 6-20=-1464/139, 7-20=-1653/112, 1-14=-1221/148, 7-8=-1135/113  
BOT CHORD 13-14=-269/343, 13-21=-112/330, 12-21=-112/330, 12-22=0/803, 11-22=0/803, 10-11=-46/1299, 10-23=-46/1299, 9-23=-46/1299, 8-9=-53/302  
WEBS 1-13=-164/1082, 2-13=-884/257, 2-12=-146/942, 3-12=-530/98, 4-12=-553/105, 4-11=-15/703, 6-11=-748/144, 6-9=0/280, 7-9=0/1043

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 12-5-4 to 14-3-12, Exterior(2R) 14-3-12 to 17-3-12, Interior (1) 17-3-12 to 24-6-4, Exterior(2R) 24-6-4 to 27-6-4, Interior (1) 27-6-4 to 38-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- \* 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.
- Refer to girder(s) for truss to truss connections.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

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

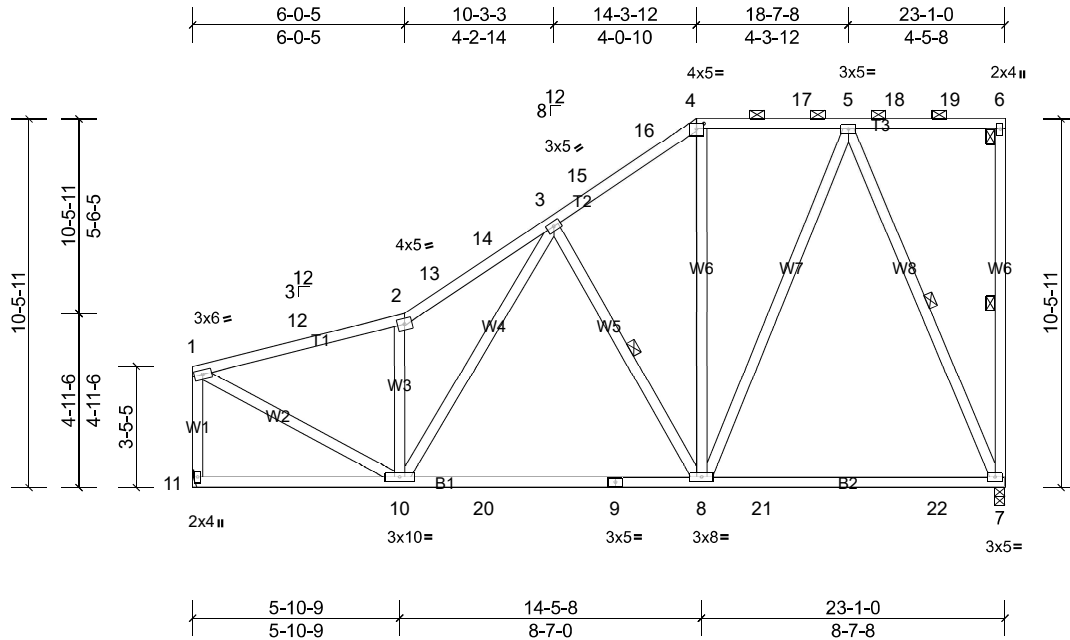
|                              |             |                              |          |          |                          |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>A7 | Truss Type<br>Piggyback Base | Qty<br>3 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:29

Page: 1

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Scale = 1:65.5

Plate Offsets (X, Y): [4:0-2-8,0-1-13]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP                    |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|--------|------|--------|-------------------------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.59 | Vert(LL) | -0.29 | 7-8    | >956 | 240    | MT20 244/190            |
| Snow (Pf/Pg) | 18.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.99 | Vert(CT) | -0.44 | 7-8    | >615 | 180    |                         |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.58 | Horz(CT) | 0.02  | 7      | n/a  | n/a    |                         |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |        |      |        |                         |
| BCDL         | 10.0      |                 |                 |            |      |          |       |        |      |        | Weight: 178 lb FT = 20% |

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 6-7, 5-7, 3-8

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

**REACTIONS**

(lb/size) 7=842/0-3-8, (min. 0-1-8), 11=788/Mechanical, (min. 0-1-8)  
 Max Horiz 11=177 (LC 12)  
 Max Uplift 7=-24 (LC 12)  
 Max Grav 7=1107 (LC 45), 11=1014 (LC 3)

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-12=-1071/71, 2-12=-1048/80, 2-13=-1316/167, 13-14=-1243/172, 3-14=-1179/187, 3-15=-796/97, 15-16=-701/110, 4-16=-682/121, 4-17=-592/143, 5-17=-592/143, 1-11=-938/102  
 BOT CHORD 10-11=-320/166, 10-20=-251/851, 9-20=-251/851, 8-9=-251/851, 8-21=-98/357, 21-22=-98/357, 7-22=-98/357  
 WEBS 2-10=-674/186, 1-10=-32/1138, 5-8=-120/729, 5-7=-917/251, 3-8=-537/217, 3-10=-122/482

**NOTES**

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 11-10-4 to 14-10-4, Interior (1) 14-10-4 to 26-0-4, Exterior(2R) 26-0-4 to 29-0-4, Interior (1) 29-0-4 to 34-7-12 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- \* 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.
- Refer to girder(s) for truss to truss connections.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

|                              |             |                              |          |          |                          |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>A8 | Truss Type<br>Piggyback Base | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:30

Page: 1

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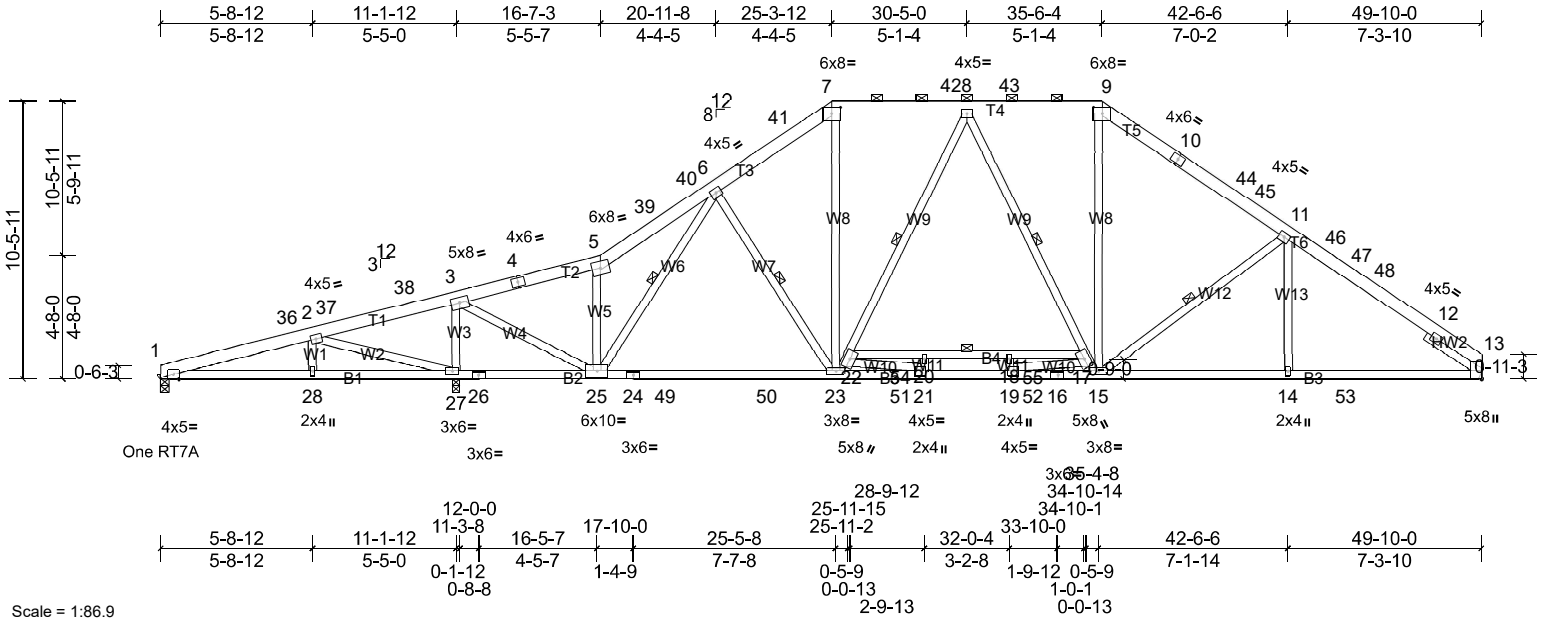


Plate Offsets (X, Y): [1:0-2-4,Edge], [7:0-4-0,0-2-13], [9:0-4-0,0-2-13]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in (loc) | l/defl | L/d   | PLATES | GRIP |                |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|--------|-------|--------|------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.60 | Vert(LL) | -0.25  | 23-25 | >999   | 240  | MT20           | 244/190  |
| Snow (Pf/Pg) | 18.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.91 | Vert(CT) | -0.44  | 23-25 | >999   | 180  |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.76 | Horz(CT) | 0.10   | 13    | n/a    | n/a  |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |        |       |        |      |                |          |
| BCDL         | 10.0      |                 |                 |            |      |          |        |       |        |      |                |          |
|              |           |                 |                 |            |      |          |        |       |        |      | Weight: 364 lb | FT = 20% |

**LUMBER**  
 TOP CHORD 2x6 SP No.2 \*Except\* T4:2x6 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2 \*Except\* B3:2x4 SP No.1  
 WEBS 2x4 SP No.3 \*Except\* W4:2x4 SP No.2  
 SLIDER Right 2x4 SP No.3 -- 2-6-0

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 3-3-12 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-9.  
 BOT CHORD Rigid ceiling directly applied or 4-11-8 oc bracing. Except: 4-10-0 oc bracing: 17-22  
 WEBS 1 Row at midpt 8-23, 8-15, 11-15, 6-23, 6-25

**WEBS**  
 5-25=-853/176, 7-23=0/953, 22-23=-714/0, 8-22=-358/106, 15-17=-559/0, 9-15=0/895, 11-15=-637/228, 11-14=0/284, 6-25=-432/0, 3-27=-2481/208, 3-25=-86/3093, 2-27=-990/162, 17-19=0/1228, 21-22=0/1197

8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.  
 9) Refer to girder(s) for truss to truss connections.  
 10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 27. This connection is for uplift only and does not consider lateral forces.  
 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.  
 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-0 to 4-11-13, Interior (1) 4-11-13 to 25-3-12, Exterior(2R) 25-3-12 to 30-5-0, Interior (1) 30-5-0 to 35-6-4, Exterior(2R) 35-6-4 to 40-6-0, Interior (1) 40-6-0 to 49-10-0 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.  
 4) Unbalanced snow loads have been considered for this design.  
 5) 200.0lb AC unit load placed on the bottom chord, 30-5-0 from left end, supported at two points, 5-0-0 apart.  
 6) Provide adequate drainage to prevent water ponding.  
 7) All plates are 4x5 MT20 unless otherwise indicated.

**LOAD CASE(S)** Standard

**REACTIONS** (lb/size) 1=124/0-3-8, (min. 0-1-8), 13=1474/ Mechanical, (min. 0-1-8), 27=2253/0-3-8, (min. 0-3-7)  
 Max Horiz 1=188 (LC 12)  
 Max Uplift 1=-59 (LC 11)  
 Max Grav 1=176 (LC 58), 13=2003 (LC 53), 27=2923 (LC 3)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-36=-115/494, 2-36=-13/521, 2-37=-61/1173, 37-38=-53/1175, 3-38=-46/1232, 3-4=-1687/80, 4-5=-1662/94, 5-39=-2020/184, 39-40=-1953/186, 6-40=-1882/201, 6-41=-2249/169, 7-41=-2134/182, 7-42=-1801/196, 8-42=-1801/196, 8-43=-1897/209, 9-43=-1897/209, 9-10=-2237/178, 10-44=-2265/158, 44-45=-2323/140, 11-45=-2405/136, 11-46=-2738/164, 46-47=-2796/148, 47-48=-2838/143, 12-48=-2892/137, 12-13=-1093/52



|                              |             |  |          |          |                          |
|------------------------------|-------------|--|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>B1 | Truss Type<br>Piggyback Base Supported Gable | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|--|----------|----------|--------------------------|

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Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:30

Page: 1

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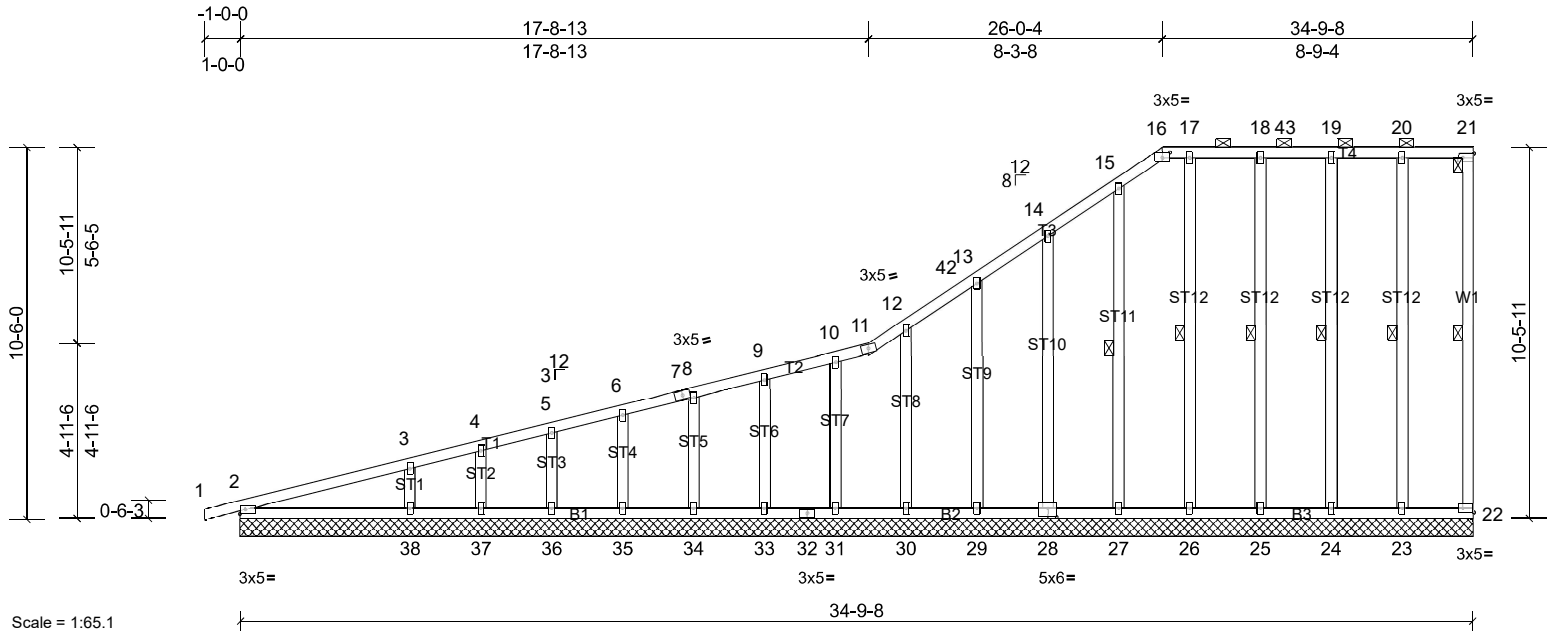


Plate Offsets (X, Y): [16:0-2-8,0-1-13], [21:Edge,0-1-8], [22:Edge,0-1-8], [28:0-3-0,0-3-0]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in       | (loc) | l/defl | L/d | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|--------|-----|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.98 | Vert(LL) | n/a   | -      | n/a | 999    | MT20           | 244/190  |
| Snow (Pf/Pg) | 18.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.28 | Vert(CT) | n/a   | -      | n/a | 999    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.22 | Horz(CT) | 0.01  | 22     | n/a | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |        |     |        |                |          |
| BCDL         | 10.0      |                 |                 |            |      |          |       |        |     |        |                |          |
|              |           |                 |                 |            |      |          |       |        |     |        | Weight: 252 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 (6-0-0 max.): 16-21.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 21-22, 20-23, 19-24, 18-25, 17-26, 15-27

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

**REACTIONS** All bearings 34-9-8.  
(lb) - Max Horiz 2=298 (LC 14), 39=298 (LC 14)  
Max Uplift All uplift 100 (lb) or less at joint(s)  
2, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39  
Max Grav All reactions 250 (lb) or less at joint (s)  
2, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 39 except 38=387 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-477/251, 3-4=-435/219, 4-5=-425/224, 5-6=-406/213, 6-7=-388/202, 7-8=-383/207, 8-9=-371/200, 9-10=-349/189, 10-11=-351/189, 11-12=-351/201, 12-42=-344/189, 13-42=-333/202, 13-14=-283/175  
BOT CHORD 2-38=-306/200  
WEBS 3-38=-265/123

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -0-11-13 to 2-5-15, Exterior(2N) 2-5-15 to 26-0-4, Corner(3R) 26-0-4 to 29-6-0, Exterior(2N) 29-6-0 to 34-7-12 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 2, 2.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

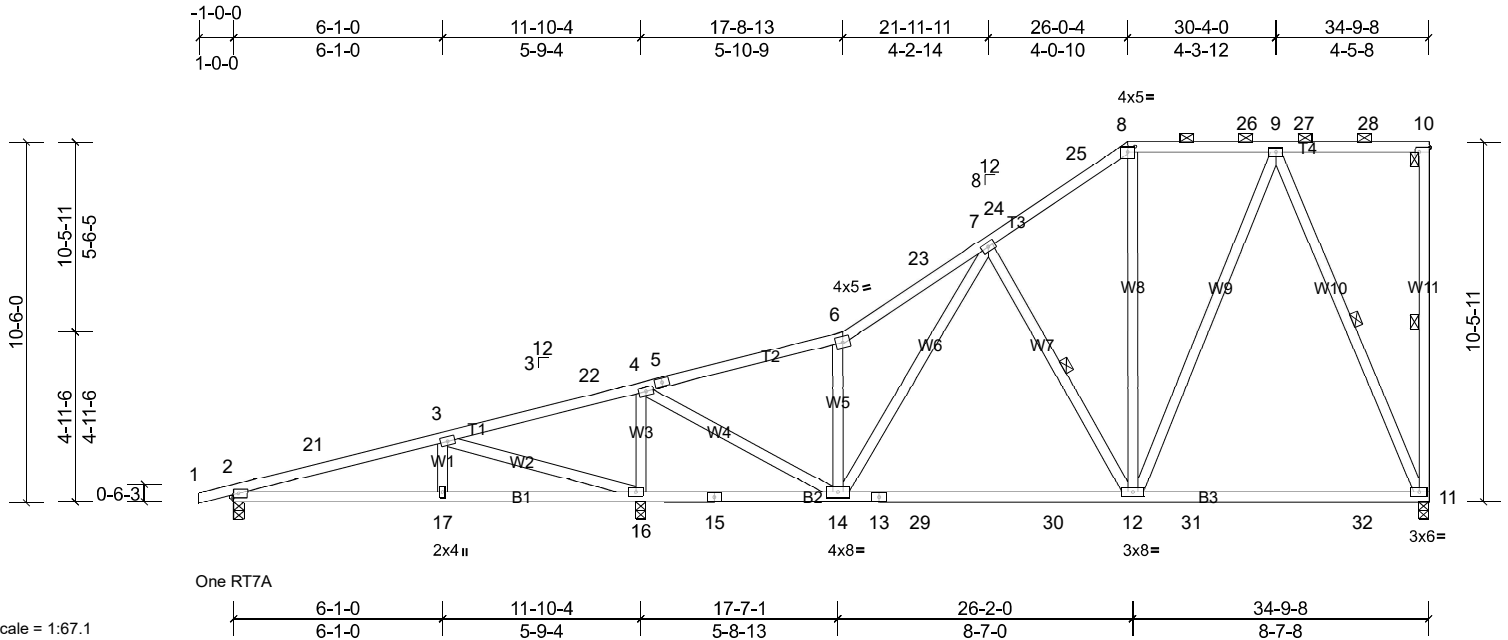
|                                 |             |                              |          |          |                          |
|---------------------------------|-------------|------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base<br>house | Truss<br>B2 | Truss Type<br>Piggyback Base | Qty<br>6 | Ply<br>1 | Job Reference (optional) |
|---------------------------------|-------------|------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:31

Page: 1

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Scale = 1:67.1

Plate Offsets (X, Y): [8:0-2-8,0-1-13], [10:Edge,0-1-8]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in (loc) | I/defl | L/d   | PLATES | GRIP           |          |         |
|--------------|-----------|-----------------|-----------------|------------|------|----------|--------|-------|--------|----------------|----------|---------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.63 | Vert(LL) | -0.24  | 11-12 | >999   | 240            | MT20     | 244/190 |
| Snow (Pf/Pg) | 18.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.93 | Vert(CT) | -0.38  | 11-12 | >729   | 180            |          |         |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.70 | Horz(CT) | 0.02   | 11    | n/a    | n/a            |          |         |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |        |       |        |                |          |         |
| BCDL         | 10.0      |                 |                 |            |      |          |        |       |        |                |          |         |
|              |           |                 |                 |            |      |          |        |       |        | Weight: 225 lb | FT = 20% |         |

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* W11:2x4 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-7-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-10.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 10-11, 9-11, 7-12

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

**REACTIONS** (lb/size)  
2=322/0-3-8, (min. 0-1-8),  
11=775/0-3-8, (min. 0-1-8),  
16=1382/0-3-8, (min. 0-2-1)  
Max Horiz 2=298 (LC 14)  
Max Uplift 2=-48 (LC 11), 11=-37 (LC 12),  
16=-12 (LC 15)  
Max Grav 2=401 (LC 33), 11=1042 (LC 46),  
16=1767 (LC 3)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-21=-535/55, 3-21=-504/70, 3-22=-293/518,  
4-22=-278/581, 4-5=-848/92, 5-6=-827/108,  
6-23=-1040/203, 7-23=-888/218,  
7-24=-755/199, 24-25=-659/211,  
8-25=-636/223, 8-26=-545/217,  
9-26=-545/217  
BOT CHORD 2-17=-353/468, 16-17=-334/468,  
15-16=-608/102, 14-15=-608/102,  
13-14=-288/755, 13-29=-288/755,  
29-30=-288/755, 12-30=-288/755,  
12-31=-178/349, 31-32=-178/349,  
11-32=-178/349  
WEBS 6-14=-524/190, 9-12=-99/649,  
9-11=-826/258, 7-12=-408/164,  
4-16=-1296/247, 4-14=-132/1390,  
3-17=0/252, 3-16=-998/169

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E)-0-11-13 to 2-5-15, Interior (1) 2-5-15 to 26-0-4, Exterior(2R) 26-0-4 to 29-6-0, Interior (1) 29-6-0 to 34-7-12 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 3x5 MT20 unless otherwise indicated.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11, 2, and 16. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

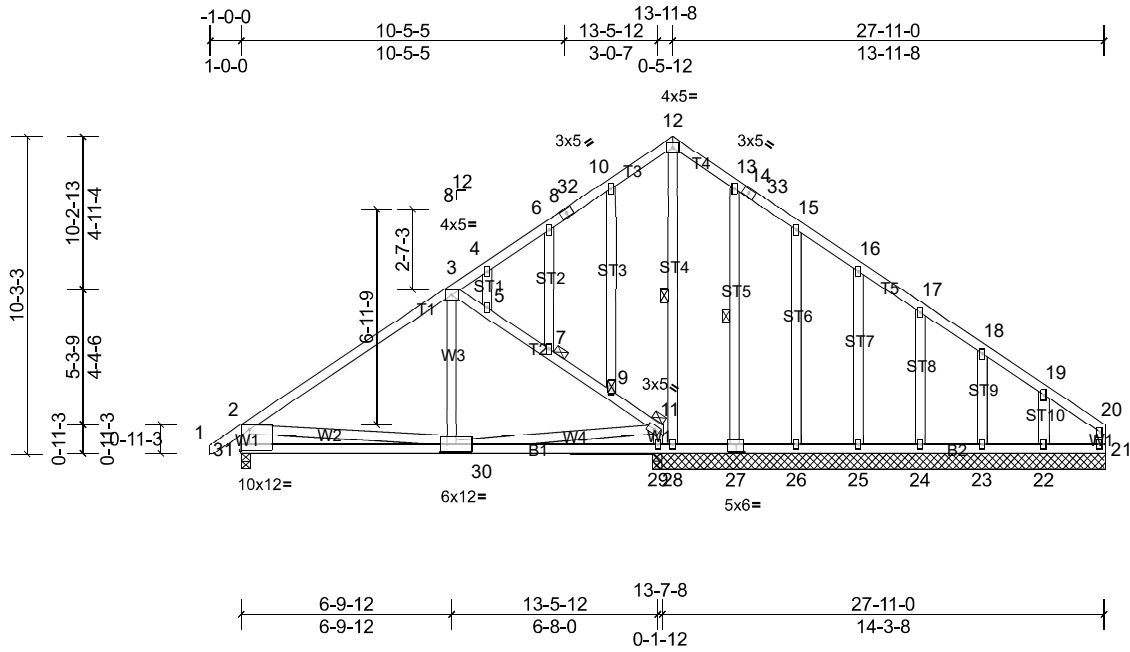
|                              |             |                                       |          |          |                          |
|------------------------------|-------------|---------------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>C1 | Truss Type<br>Common Structural Gable | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|---------------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:31

Page: 1

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Scale = 1:74.5

Plate Offsets (X, Y): [27:0-3-0,0-3-0], [30:0-2-8,0-3-0], [31:Edge,0-8-2]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.55 | Vert(LL) | -0.01 | 30     | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.33 | Vert(CT) | -0.09 | 30-31  | >999 | 180    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.17 | Horz(CT) | 0.01  | 21     | n/a  | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |            |      |          |       |        |      |        |                |          |
|              |           |                 |                 |            |      |          |       |        |      |        | Weight: 211 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 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 30-31.  
 WEBS 1 Row at midpt 12-28, 13-27  
 JOINTS 1 Brace at Jt(s): 9, 7, 11

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

**REACTIONS**

All bearings 14-7-0. except 31=0-3-8  
 (lb) - Max Horiz 31=202 (LC 12)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 21, 22, 23, 24, 25, 26, 27, 28, 29, 31  
 Max Grav All reactions 250 (lb) or less at joint (s) 21, 22, 23, 24, 25, 26, 27, 28 except 29=540 (LC 25), 31=592 (LC 2)

**FORCES**

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

TOP CHORD 2-3=-566/143, 2-31=-520/155, 3-5=-476/87, 5-7=-484/90, 7-9=-514/106, 9-11=-556/127  
 BOT CHORD 30-31=-182/411  
 WEBS 12-28=-253/11, 11-30=-90/433, 11-29=-412/106

**NOTES**

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E)-0-11-8 to 2-0-8, Interior (1) 2-0-8 to 13-11-8, Exterior(2R) 13-11-8 to 16-11-8, Interior (1) 16-11-8 to 27-9-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- \* 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.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 31, 21, 28, 27, 26, 25, 24, 23, 22, and 29. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

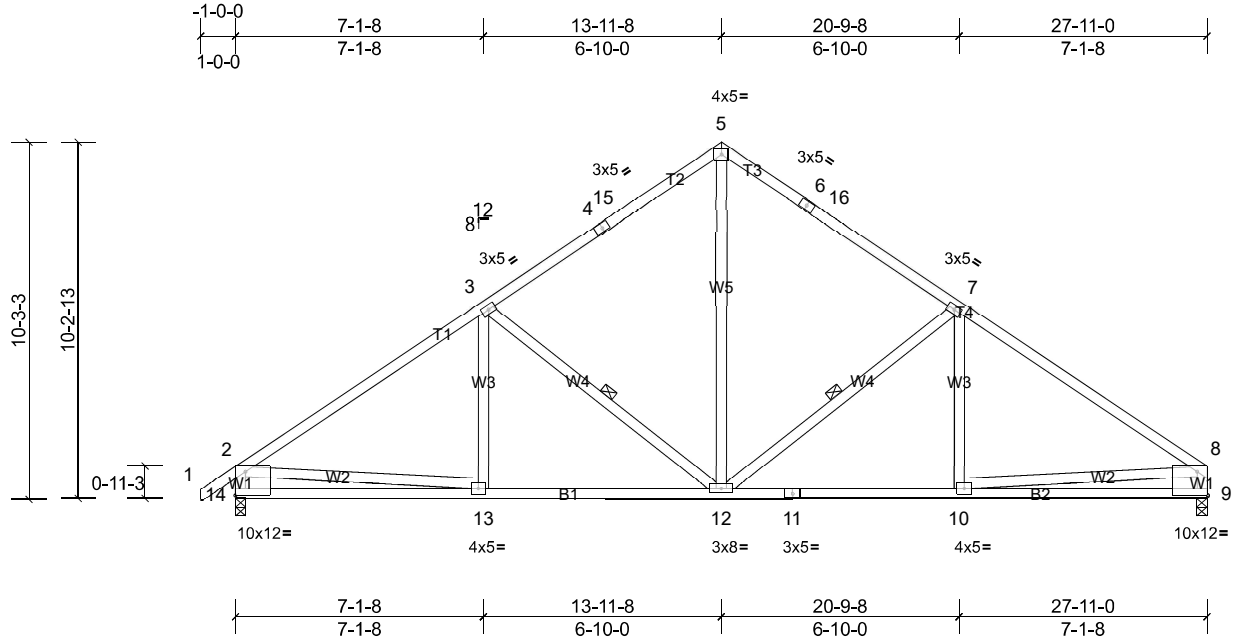
|                              |             |                      |          |          |                          |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>C2 | Truss Type<br>Common | Qty<br>5 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:31

Page: 1

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Scale = 1:66.2

Plate Offsets (X, Y): [9:Edge,0-8-2], [14:Edge,0-8-2]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL     | in    | (loc) | l/defl | L/d | PLATES | GRIP                    |
|--------------|-----------|-----------------|-----------------|------------|----------|-------|-------|--------|-----|--------|-------------------------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | Vert(LL) | -0.05 | 12-13 | >999   | 240 | MT20   | 244/190                 |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | Vert(CT) | -0.12 | 12-13 | >999   | 180 |        |                         |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | Horz(CT) | 0.03  | 9     | n/a    | n/a |        |                         |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |          |       |       |        |     |        |                         |
| BCDL         | 10.0      |                 |                 |            |          |       |       |        |     |        |                         |
|              |           |                 |                 |            |          |       |       |        |     |        | Weight: 169 lb FT = 20% |

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-9-5 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 3-12, 7-12

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

**REACTIONS** (lb/size) 9=934/0-3-8, (min. 0-1-8), 14=989/0-3-8, (min. 0-1-8)  
 Max Horiz 14=202 (LC 10)  
 Max Grav 9=1104 (LC 2), 14=1172 (LC 2)

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

TOP CHORD 2-3=-1475/142, 3-4=-1072/174, 4-15=-947/177, 5-15=-944/197, 5-6=-928/198, 6-16=-946/178, 7-16=-1074/168, 7-8=-1475/141, 2-14=-1105/154, 8-9=-1036/115  
 BOT CHORD 13-14=-189/472, 12-13=-55/1139, 11-12=-49/1141, 10-11=-49/1141, 9-10=-52/260  
 WEBS 2-13=0/801, 3-12=-474/129, 5-12=-77/685, 7-12=-483/131, 8-10=0/886

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-8 to 2-0-8, Interior (1) 2-0-8 to 13-11-8, Exterior(2R) 13-11-8 to 16-11-8, Interior (1) 16-11-8 to 27-9-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 and 9. This connection is for uplift only and does not consider lateral forces.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

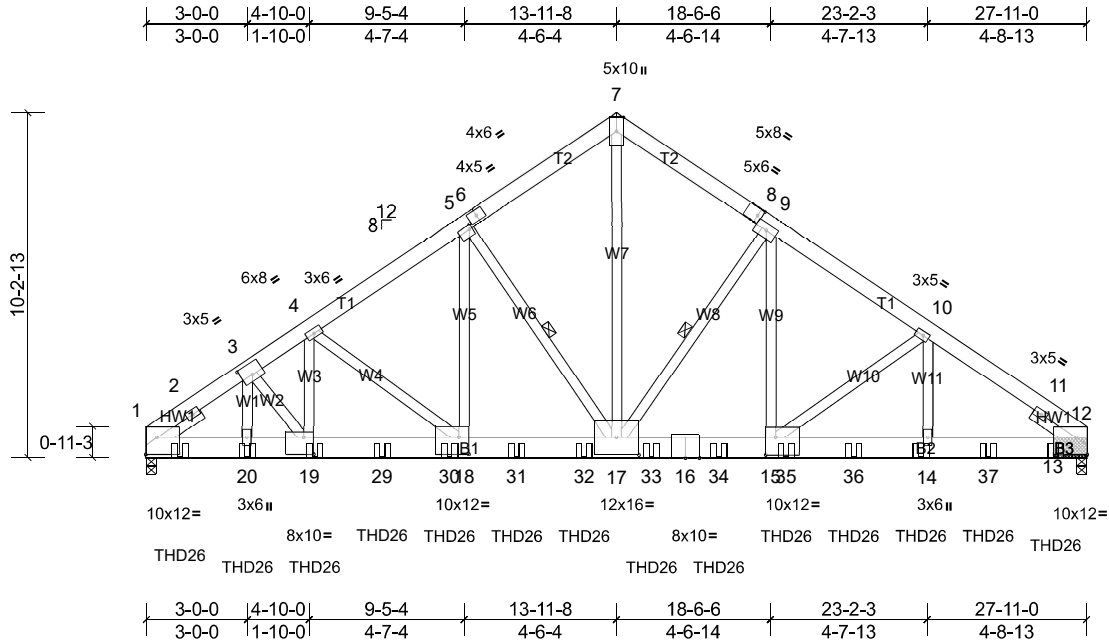
|                              |             |                             |          |          |                          |
|------------------------------|-------------|-----------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>C3 | Truss Type<br>Common Girder | Qty<br>1 | Ply<br>2 | Job Reference (optional) |
|------------------------------|-------------|-----------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:31

Page: 1

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Scale = 1:68.4

Plate Offsets (X, Y): [1:Edge,0-6-1], [3:0-4-0,0-3-12], [5:0-1-0,0-1-8], [8:0-1-9,0-2-8], [12:Edge,0-6-1], [15:0-3-8,0-6-4], [17:0-8-0,0-6-4], [18:0-3-8,0-6-0], [19:0-3-8,0-6-0]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in (loc) | l/defl | L/d   | PLATES | GRIP |                |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|--------|-------|--------|------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.51 | Vert(LL) | -0.18  | 17-18 | >999   | 240  | MT20           | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.57 | Vert(CT) | -0.34  | 17-18 | >961   | 180  |                |          |
| TCDL         | 10.0      | Rep Stress Incr | NO              | WB         | 0.71 | Horz(CT) | 0.11   | 12    | n/a    | n/a  |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |        |       |        |      |                |          |
| BCDL         | 10.0      |                 |                 |            |      |          |        |       |        |      |                |          |
|              |           |                 |                 |            |      |          |        |       |        |      | Weight: 523 lb | FT = 20% |

- LUMBER**
- TOP CHORD 2x6 SP No.2 \*Except\* T1:2x6 SP 2400F 2.0E  
 BOT CHORD 2x8 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* W7:2x4 SP 2400F 2.0E, W5,W9:2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 4-4-5 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-17, 9-17
- REACTIONS** (lb/size) 1=11120/0-3-8, (req. 0-5-8), 12=9849/(0-3-8 + bearing block), (req. 0-4-10)  
 Max Horiz 1=173 (LC 31)  
 Max Grav 1=13275 (LC 20), 12=11188 (LC 21)
- FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
- TOP CHORD 1-2=-11798/0, 2-3=-16238/0, 3-4=-17019/0, 4-5=-14955/0, 5-6=-11566/0, 6-7=-11556/0, 7-8=-11575/0, 8-9=-11581/0, 9-10=-14285/0, 10-11=-15279/0, 11-12=-10776/0  
 BOT CHORD 1-20=0/12986, 19-20=0/12986, 19-29=0/14594, 29-30=0/14594, 18-30=0/14594, 18-31=0/12469, 31-32=0/12469, 17-32=0/12469, 17-33=0/11915, 16-33=0/11915, 16-34=0/11915, 15-34=0/11915, 15-35=0/12403, 35-36=0/12403, 14-36=0/12403, 14-37=0/12403, 13-37=0/12403, 12-13=0/12403  
 WEBS 7-17=0/12389, 5-17=-4973/0, 4-19=0/2072, 4-18=-2690/0, 5-18=0/5849, 9-17=-4119/0, 9-15=0/4643, 10-15=-712/0, 10-14=0/1280, 3-19=0/2644, 3-20=-1098/0
- 2-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 - 3 rows staggered at 0-5-0 oc.  
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - 2x8 SP 2400F 2.0E bearing block 12" long at jt. 12 attached to each face with 4 rows of 10d (0.131"x3") nails spaced 3" o.c. 16 Total fasteners per block. Bearing is assumed to be SP 2400F 2.0E.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - \* 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.
  - WARNING: Required bearing size at joint(s) 1 greater than input bearing size.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 12. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-0-0 from the left end to 27-0-0 to connect truss(es) A2 (1 ply 2x4 SP), A3 (1 ply 2x4 SP), A4 (1 ply 2x4 SP), A8 (1 ply 2x4 SP), A5 (1 ply 2x4 SP), A6 (1 ply 2x4 SP), A7 (1 ply 2x4 SP) to front face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
- LOAD CASE(S)** Standard
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-7=-48, 7-12=-48, 21-25=-20  
 Concentrated Loads (lb)  
 Vert: 19=-1336, 14=-817, 20=-1336, 13=-819, 23=-1337, 29=-1336, 30=-1526, 31=-1796, 32=-1719, 33=-1719, 34=-1719, 35=-1719, 36=-1101, 37=-817

NOTES

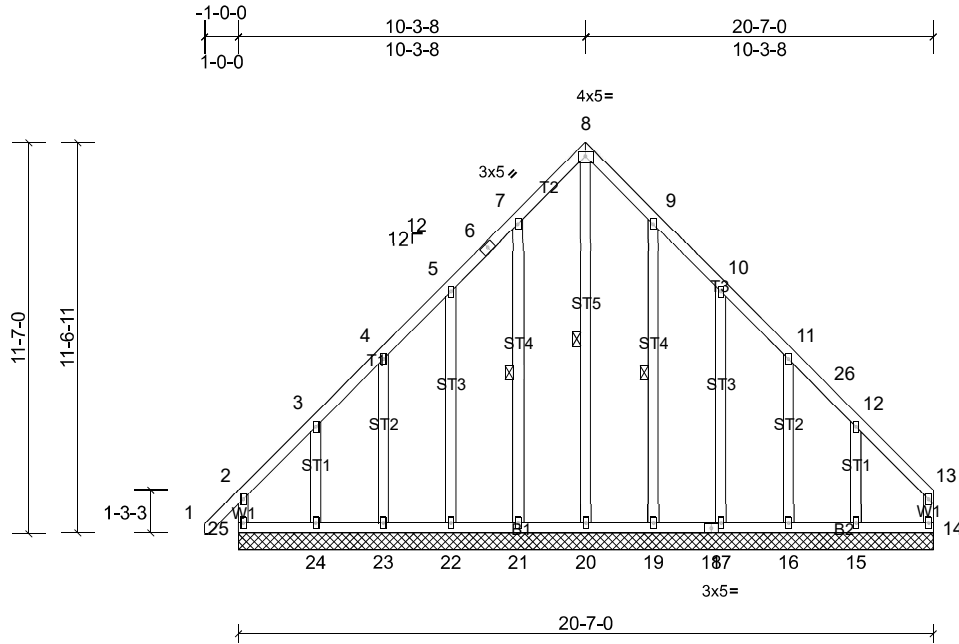
|                              |             |                                      |          |          |                          |
|------------------------------|-------------|--------------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>D1 | Truss Type<br>Common Supported Gable | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|--------------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:32

Page: 1

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Scale = 1:68.3

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | l/defl | L/d | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|--------|-----|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.21 | Vert(LL) | n/a   | -      | n/a | 999    | MT20           | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.13 | Vert(CT) | n/a   | -      | n/a | 999    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.34 | Horz(CT) | 0.00  | 14     | n/a | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MR |      |          |       |        |     |        |                |          |
| BCDL         | 10.0      |                 |                 |           |      |          |       |        |     |        |                |          |
|              |           |                 |                 |           |      |          |       |        |     |        | Weight: 167 lb | FT = 20% |

**LUMBER**

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

**BRACING**

|           |   |
|-----------|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing.                                   |
| WEBS      | 1 Row at midpt 8-20, 7-21, 9-19   |

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

**REACTIONS** All bearings 20-7-0.

|                  |  |
|------------------|--|
| (lb) - Max Horiz | 25=233 (LC 10)   |
| Max Uplift       | All uplift 100 (lb) or less at joint(s) 14, 16, 17, 19, 21, 22, 23 except 15=-120 (LC 14), 24=-136 (LC 10), 25=-132 (LC 9)       |
| Max Grav         | All reactions 250 (lb) or less at joint (s) 14, 16, 17, 19, 21, 22, 23, 24 except 15=257 (LC 26), 20=320 (LC 14), 25=258 (LC 26) |

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

|           |   |
|-----------|---|
| TOP CHORD | 5-6=-189/338, 6-7=-173/344, 7-8=-237/434, 8-9=-237/434, 9-10=-189/344 |
| WEBS      | 8-20=-533/229   |

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -0-11-4 to 2-3-8, Exterior(2N) 2-3-8 to 10-3-8, Corner(3R) 10-3-8 to 13-3-8, Exterior(2N) 13-3-8 to 20-5-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 14, 21, 22, 23, 19, 17, 16 except (jt=lb) 25=132, 24=136, 15=119.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

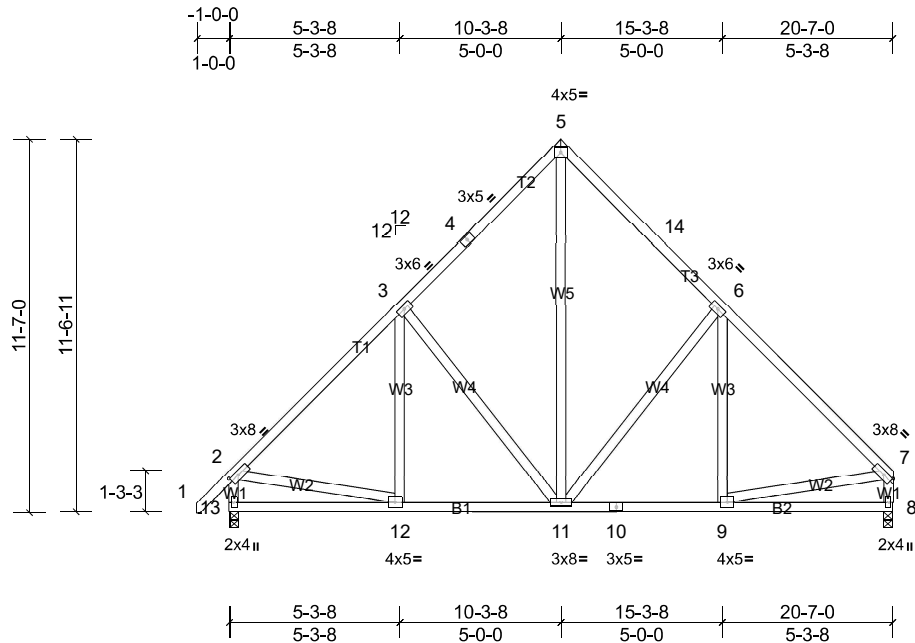
|                              |             |                      |          |          |                          |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>D2 | Truss Type<br>Common | Qty<br>5 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:32

Page: 1

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Scale = 1:71.5

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

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.34 | Vert(LL) | -0.02 | 11     | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.21 | Vert(CT) | -0.04 | 11-12  | >999 | 180    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.42 | Horz(CT) | 0.01  | 8      | n/a  | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |            |      |          |       |        |      |        |                |          |
|              |           |                 |                 |            |      |          |       |        |      |        | Weight: 151 lb | FT = 20% |

**LUMBER**

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

**BRACING**

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

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

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13 and 8. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- REACTIONS** (lb/size) 8=686/0-3-8, (min. 0-1-8), 13=740/0-3-8, (min. 0-1-8)  
 Max Horiz 13=233 (LC 12)  
 Max Grav 8=810 (LC 2), 13=879 (LC 2)

- FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-852/115, 3-4=-648/171, 4-5=-531/209, 5-14=-531/210, 6-14=-649/172, 6-7=-850/110, 2-13=-829/130, 7-8=-761/92  
 BOT CHORD 12-13=-233/285, 11-12=-47/588, 10-11=-15/533, 9-10=-15/533  
 WEBS 3-11=-292/155, 5-11=-173/525, 6-11=-299/156, 2-12=0/437, 7-9=0/456

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-4 to 2-0-12, Interior (1) 2-0-12 to 10-3-8, Exterior(2R) 10-3-8 to 13-3-8, Interior (1) 13-3-8 to 20-5-4 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

**LOAD CASE(S)** Standard

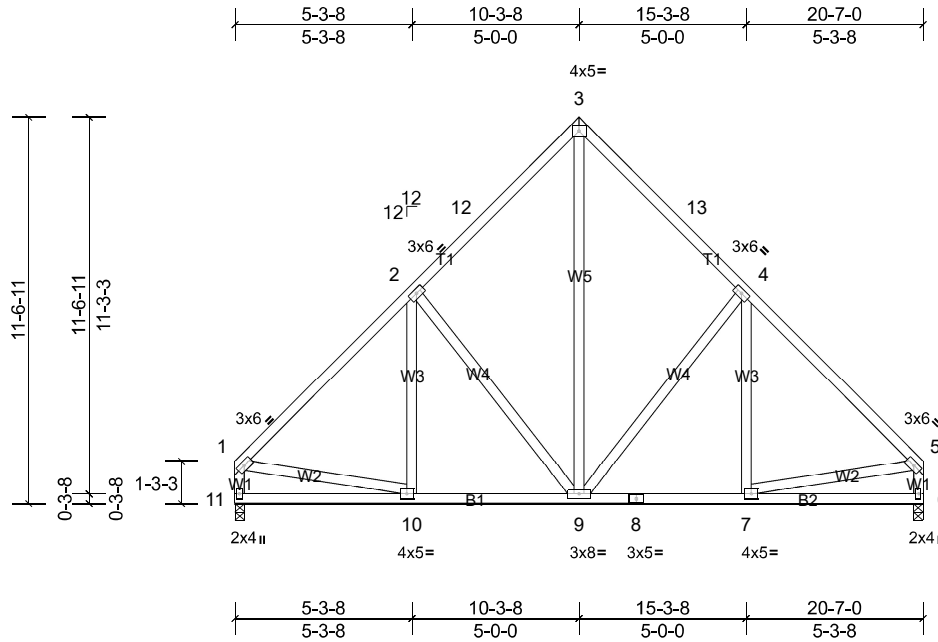
|                              |             |                      |          |          |                          |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>D3 | Truss Type<br>Common | Qty<br>6 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:32

Page: 1

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Scale = 1:68.9

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in       | (loc) | I/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.34 | Vert(LL) | -0.02 | 9      | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.21 | Vert(CT) | -0.04 | 9-10   | >999 | 180    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.42 | Horz(CT) | 0.01  | 6      | n/a  | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |            |      |          |       |        |      |        |                |          |
|              |           |                 |                 |            |      |          |       |        |      |        | Weight: 149 lb | FT = 20% |

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

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 5-11-9 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

- \* 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.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** (lb/size) 6=687/0-3-8, (min. 0-1-8), 11=687/0-3-8, (min. 0-1-8)  
 Max Horiz 11=-219 (LC 11)  
 Max Grav 6=812 (LC 2), 11=812 (LC 2)

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

TOP CHORD 1-2=-852/110, 2-12=-652/172, 3-12=-533/211, 3-13=-533/211, 4-13=-652/172, 4-5=-852/110, 1-11=-763/92, 5-6=-763/92

BOT CHORD 10-11=-214/267, 9-10=-46/594, 8-9=-15/534, 7-8=-15/534

WEBS 1-10=0/457, 5-7=0/457, 2-9=-299/157, 3-9=-175/529, 4-9=-299/157

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 10-3-8, Exterior(2R) 10-3-8 to 13-3-8, Interior (1) 13-3-8 to 20-5-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10



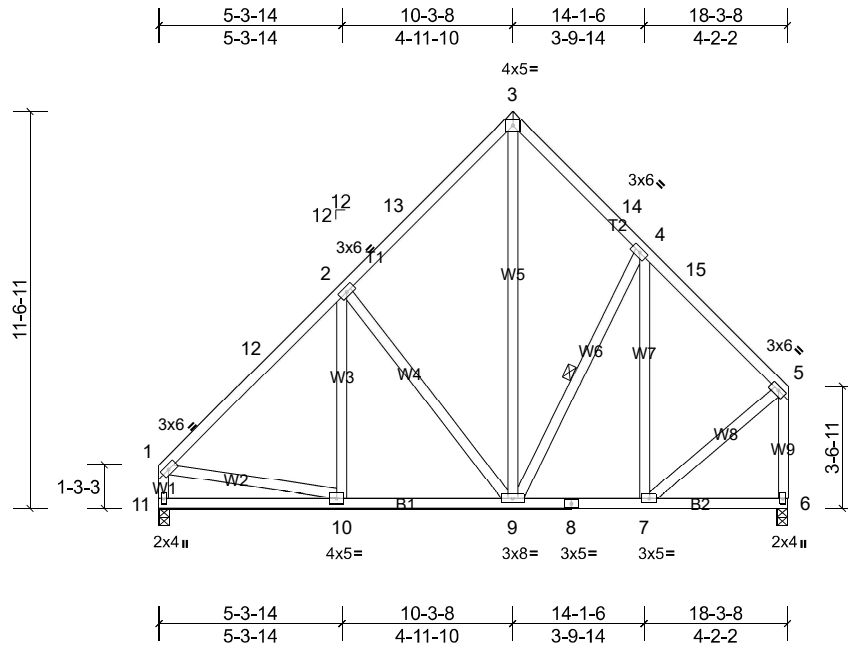
|                              |             |                      |          |          |                          |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>D4 | Truss Type<br>Common | Qty<br>2 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:32

Page: 1

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Scale = 1:67.1

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in       | (loc) | I/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.34 | Vert(LL) | -0.01 | 9      | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.20 | Vert(CT) | -0.03 | 9-10   | >999 | 180    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.50 | Horz(CT) | 0.01  | 6      | n/a  | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |            |      |          |       |        |      |        |                |          |
|              |           |                 |                 |            |      |          |       |        |      |        | Weight: 146 lb | FT = 20% |

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

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 4-9

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

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 6. This connection is for uplift only and does not consider lateral forces.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**REACTIONS** (lb/size) 6=609/0-3-8, (min. 0-1-8),  
 11=609/0-3-8, (min. 0-1-8)  
 Max Horiz 11=243 (LC 10)  
 Max Grav 6=720 (LC 2), 11=720 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-12=-745/88, 2-12=-581/112,  
 2-13=-534/178, 3-13=-413/216,  
 3-14=-423/220, 4-14=-501/191,  
 4-15=-374/128, 5-15=-528/109,  
 1-11=-672/94, 5-6=-682/101  
 BOT CHORD 10-11=-238/263, 9-10=-125/522,  
 8-9=-64/322, 7-8=-64/322  
 WEBS 1-10=0/383, 3-9=-206/436, 2-9=-314/172,  
 5-7=-35/400

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 10-3-8, Exterior(2R) 10-3-8 to 13-3-8, Interior (1) 13-3-8 to 18-1-12 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

**LOAD CASE(S)** Standard

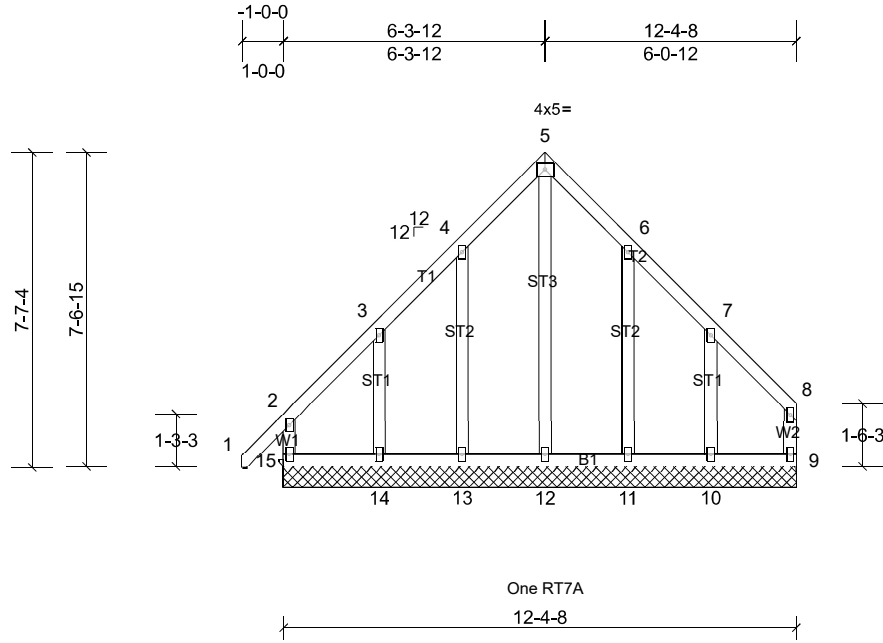
|                              |             |                                      |          |          |                          |
|------------------------------|-------------|--------------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>E1 | Truss Type<br>Common Supported Gable | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|--------------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:32

Page: 1

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Scale = 1:55.6

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       |      | DEFL     | in   | (loc) | l/defl | L/d | PLATES        | GRIP     |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|------|-------|--------|-----|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.14 | Vert(LL) | n/a  | -     | n/a    | 999 | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.09 | Vert(CT) | n/a  | -     | n/a    | 999 |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.32 | Horz(CT) | 0.00 | 9     | n/a    | n/a |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MR |      |          |      |       |        |     |               |          |
| BCDL         | 10.0      |                 |                 |           |      |          |      |       |        |     | Weight: 84 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 6-0-0 oc bracing.

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

**REACTIONS** All bearings 12-4-8.  
(lb) - Max Horiz 15=161 (LC 10)  
Max Uplift All uplift 100 (lb) or less at joint(s) 9, 10, 11, 13, 15 except 14=102 (LC 10)  
Max Grav All reactions 250 (lb) or less at joint (s) 9, 10, 11, 12, 13, 14, 15

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 4-5=-231/283, 5-6=-231/283  
WEBS 5-12=-329/203

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -0-11-4 to 2-3-12, Exterior(2N) 2-3-12 to 6-3-12, Corner(3R) 6-3-12 to 9-3-12, Exterior(2N) 9-3-12 to 12-2-12 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- \* 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.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15, 9, 12, 13, 14, 11, and 10. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

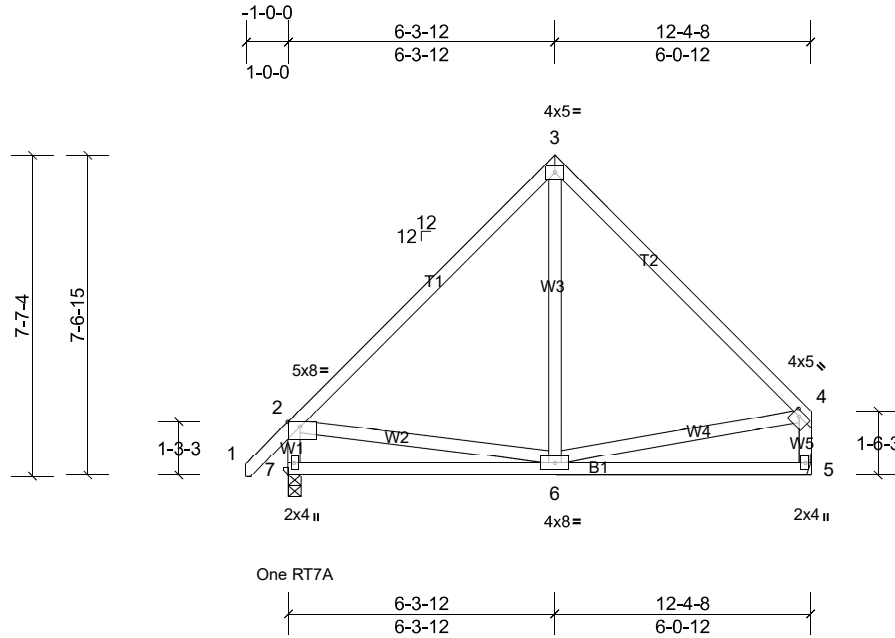
|                              |             |                      |          |          |                          |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>E2 | Truss Type<br>Common | Qty<br>2 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:33

Page: 1

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Scale = 1:54.6

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

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | 0.70 | DEFL     | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.70 | Vert(LL) | 0.00  | 6     | >999   | 240 | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.23 | Vert(CT) | -0.03 | 6-7   | >999   | 180 |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.11 | Horz(CT) | 0.00  | 5     | n/a    | n/a |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |       |        |     |               |          |
| BCDL         | 10.0      |                 |                 |            |      |          |       |       |        |     | Weight: 78 lb | FT = 20% |

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

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

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

- \* 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.
- Refer to girder(s) for truss to truss connections.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** (lb/size) 5=407/ Mechanical, (min. 0-1-8), 7=463/0-3-8, (min. 0-1-8)  
Max Horiz 7=161 (LC 10)  
Max Grav 5=480 (LC 2), 7=551 (LC 2)

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

TOP CHORD 2-3=-459/104, 3-4=-443/99, 2-7=-496/116, 4-5=-428/93

BOT CHORD 6-7=-209/316

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-4 to 2-0-12, Interior (1) 2-0-12 to 6-3-12, Exterior(2R) 6-3-12 to 9-3-12, Interior (1) 9-3-12 to 12-2-12 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.

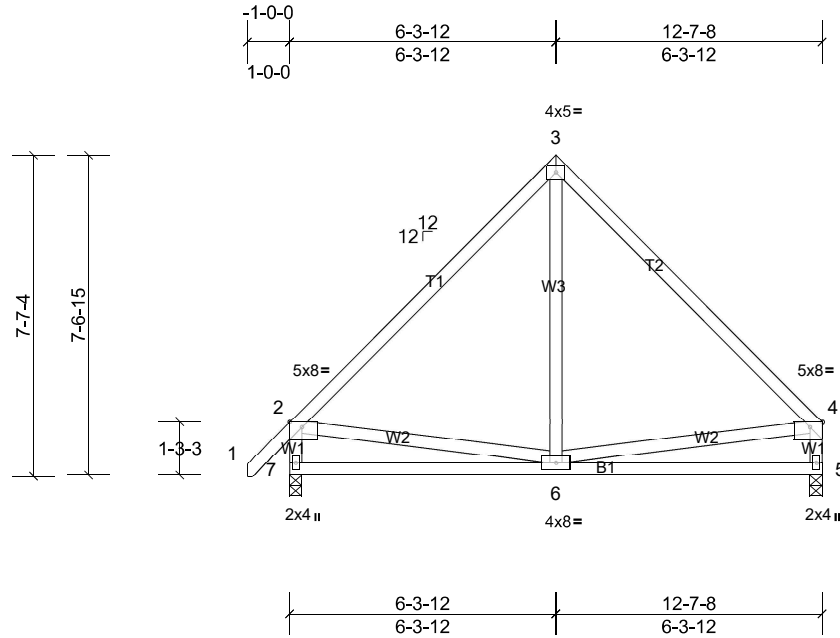
|                              |             |                      |          |          |                          |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>E3 | Truss Type<br>Common | Qty<br>3 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:33

Page: 1

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Scale = 1:54.6

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

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in       | (loc) | I/defl | L/d  | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|--------|------|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.69 | Vert(LL) | 0.00  | 6      | >999 | 240    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.24 | Vert(CT) | -0.03 | 5-6    | >999 | 180    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.10 | Horz(CT) | 0.00  | 5      | n/a  | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |        |      |        |               |          |
| BCDL         | 10.0      |                 |                 |            |      |          |       |        |      |        |               |          |
|              |           |                 |                 |            |      |          |       |        |      |        | Weight: 79 lb | FT = 20% |

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

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

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

- 5) \* 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.
- 6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 5. This connection is for uplift only and does not consider lateral forces.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** (lb/size) 5=415/0-3-8, (min. 0-1-8),  
 7=472/0-3-8, (min. 0-1-8)  
 Max Horiz 7=158 (LC 10)  
 Max Grav 5=490 (LC 2), 7=561 (LC 2)

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

TOP CHORD 2-3=-471/104, 3-4=-463/97, 2-7=-506/117,  
 4-5=-436/94

BOT CHORD 6-7=-207/312

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-4 to 2-0-12, Interior (1) 2-0-12 to 6-3-12, Exterior(2R) 6-3-12 to 9-3-12, Interior (1) 9-3-12 to 12-5-12 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.

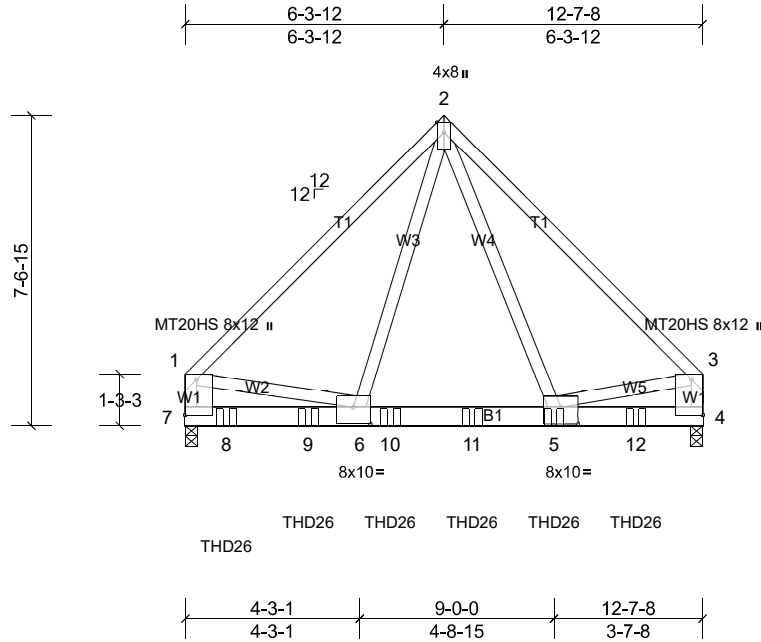
|                              |             |                             |          |          |                          |
|------------------------------|-------------|-----------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>E4 | Truss Type<br>Common Girder | Qty<br>1 | Ply<br>2 | Job Reference (optional) |
|------------------------------|-------------|-----------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:33

Page: 1

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Scale = 1:56.2

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

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.74 | Vert(LL) | -0.06 | 5-6    | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.42 | Vert(CT) | -0.11 | 5-6    | >999 | 180    | MT20HS         | 187/143  |
| TCDL         | 10.0      | Rep Stress Incr | NO              | WB         | 0.76 | Horz(CT) | 0.01  | 4      | n/a  | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |            |      |          |       |        |      |        |                |          |
|              |           |                 |                 |            |      |          |       |        |      |        | Weight: 182 lb | FT = 20% |

- LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\* W1:2x4 SP No.1
- BRACING**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (lb/size) 4=4640/0-3-8, (min. 0-2-6), 7=4722/0-3-8, (min. 0-2-7)  
Max Horiz 7=-142 (LC 5)  
Max Grav 4=5739 (LC 3), 7=5931 (LC 21)
- FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-5012/0, 2-3=-5306/0, 1-7=-4300/0, 3-4=-4726/0  
BOT CHORD 7-8=-63712, 8-9=-63712, 6-9=-63712, 6-10=0/2478, 10-11=0/2478, 5-11=0/2478, 5-12=0/486, 4-12=0/486  
WEBS 1-6=0/3026, 3-5=0/3403, 2-6=0/3698, 2-5=0/3526
- NOTES**  
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.  
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.  
3) Unbalanced roof live loads have been considered for this design.  
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33

- 5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10  
6) All plates are MT20 plates unless otherwise indicated.  
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) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 4. This connection is for uplift only and does not consider lateral forces.  
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.  
10) Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-0-0 from the left end to 11-0-0 to connect truss(es) A2 (1 ply 2x4 SP), A3 (1 ply 2x4 SP), A4 (1 ply 2x4 SP) to back face of bottom chord.  
11) Fill all nail holes where hanger is in contact with lumber.
- LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-48, 2-3=-48, 4-7=-20  
Concentrated Loads (lb)  
Vert: 5=-1526, 8=-1337, 9=-1336, 10=-1336, 11=-1336, 12=-1655

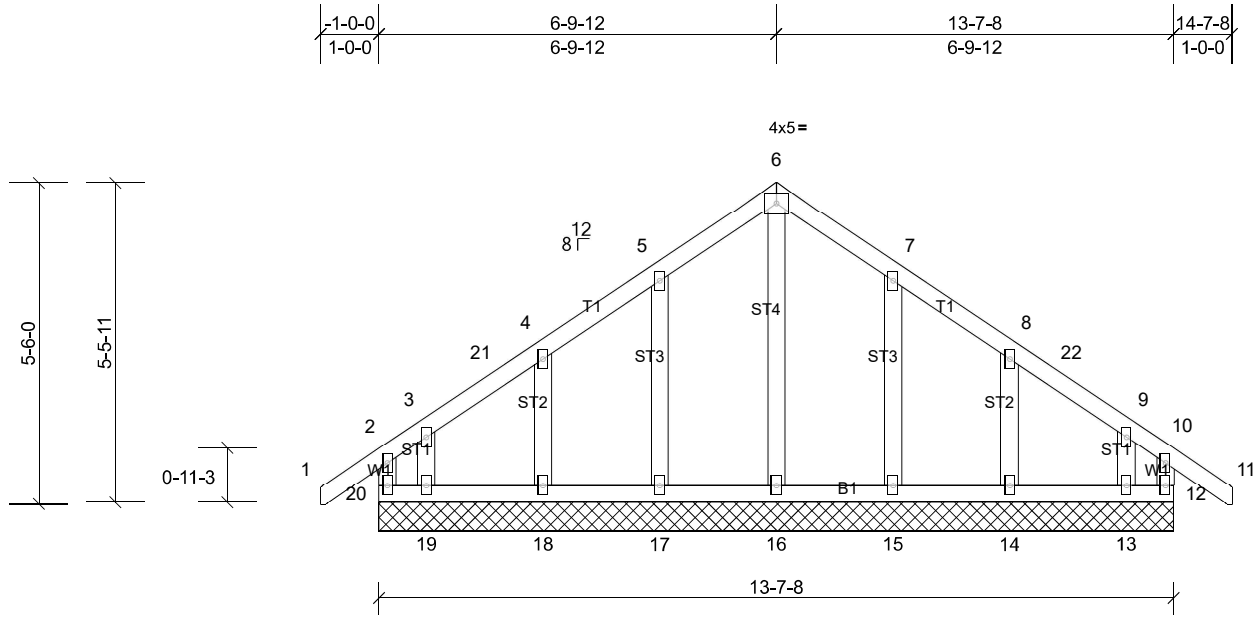
|                              |             |                                      |          |          |                          |
|------------------------------|-------------|--------------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>G1 | Truss Type<br>Common Supported Gable | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|--------------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:33

Page: 1

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Scale = 1:39.5

| Loading      | (psf)     | Spacing         | 1-11-4          | CSI       | DEFL | in       | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.12 | Vert(LL) | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.04 | Vert(CT) | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.07 | Horz(CT) | 0.00  | 12     | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MR |      |          |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |           |      |          |       |        |     |        |               |          |
|              |           |                 |                 |           |      |          |       |        |     |        | Weight: 77 lb | FT = 20% |

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

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

- REACTIONS** All bearings 13-7-8.
- (lb) - Max Horiz 20=113 (LC 12)
  - Max Uplift All uplift 100 (lb) or less at joint(s) 12, 13, 14, 15, 17, 18, 19, 20
  - Max Grav All reactions 250 (lb) or less at joint (s) 12, 13, 14, 15, 16, 17, 18, 19, 20

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

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -0-11-8 to 2-0-8, Exterior(2N) 2-0-8 to 6-9-12, Corner(3R) 6-9-12 to 9-9-12, Exterior(2N) 9-9-12 to 14-7-0 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.

- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 20, 12, 17, 18, 19, 15, 14, 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

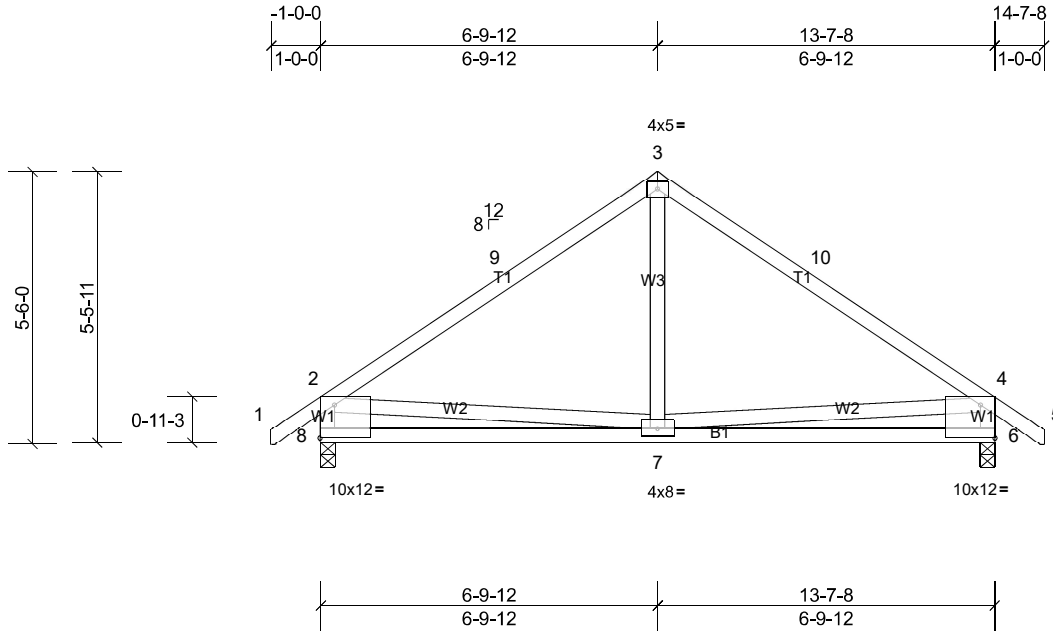
|                              |             |                      |          |          |                          |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>G2 | Truss Type<br>Common | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|-------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:33

Page: 1

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Scale = 1:46.6

Plate Offsets (X, Y): [6:Edge,0-8-2], [8:Edge,0-8-2]

| Loading      | (psf)     | Spacing         | 1-11-4          | CSI        | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|------------|------|----------|-------|--------|------|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.76 | Vert(LL) | 0.00  | 7      | >999 | 240    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.29 | Vert(CT) | -0.04 | 7-8    | >999 | 180    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.07 | Horz(CT) | 0.01  | 6      | n/a  | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |          |       |        |      |        |               |          |
| BCDL         | 10.0      |                 |                 |            |      |          |       |        |      |        |               |          |
|              |           |                 |                 |            |      |          |       |        |      |        | Weight: 76 lb | FT = 20% |

**LUMBER**

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

**BRACING**

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

**REACTIONS** (lb/size) 6=488/0-3-8, (min. 0-1-8),  
 8=488/0-3-8, (min. 0-1-8)  
 Max Horiz 8=113 (LC 12)  
 Max Grav 6=581 (LC 2), 8=581 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-9=-558/88, 3-9=-440/108, 3-10=-440/108, 4-10=-558/88, 2-8=-524/155, 4-6=-524/155  
 BOT CHORD 7-8=-163/414, 6-7=-138/336

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-8 to 2-0-8, Interior (1) 2-0-8 to 6-9-12, Exterior(2R) 6-9-12 to 9-9-12, Interior (1) 9-9-12 to 14-7-0 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

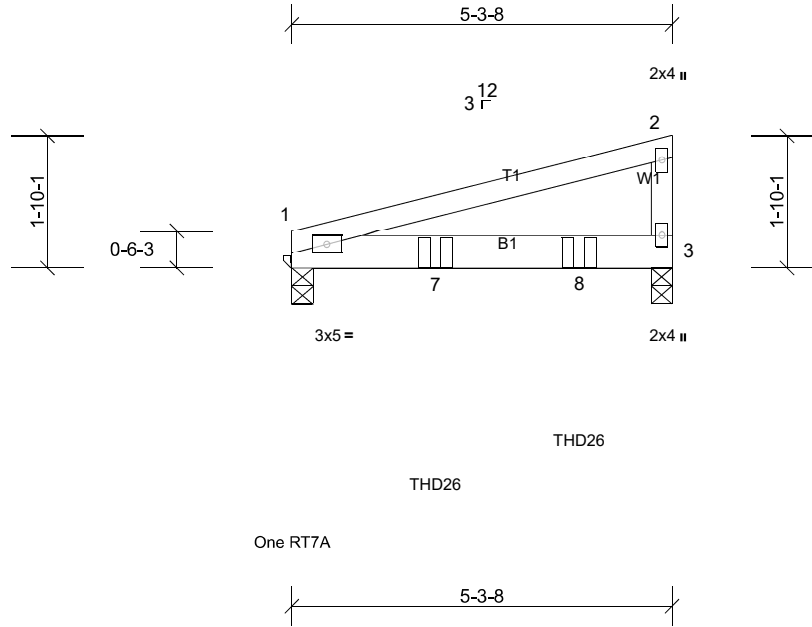
|                              |             |                                |          |          |                          |
|------------------------------|-------------|--------------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>H1 | Truss Type<br>Monopitch Girder | Qty<br>1 | Ply<br>2 | Job Reference (optional) |
|------------------------------|-------------|--------------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:33

Page: 1

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Scale = 1:32.1

| Loading      | (psf)     | Spacing         | 1-11-4          | CSI       |      | DEFL     | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.29 | Vert(LL) | -0.03 | 3-6   | >999   | 240 | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.49 | Vert(CT) | -0.06 | 3-6   | >965   | 180 |               |          |
| TCDL         | 10.0      | Rep Stress Incr | NO              | WB        | 0.00 | Horz(CT) | 0.00  | 1     | n/a    | n/a |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |          |       |       |        |     |               |          |
| BCDL         | 10.0      |                 |                 |           |      |          |       |       |        |     | Weight: 44 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-3-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 1=492/0-3-8, (min. 0-1-8),  
 3=621/0-3-8, (min. 0-1-8)  
 Max Horiz 1=39 (LC 10)  
 Max Grav 1=584 (LC 2), 3=737 (LC 2)

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

TOP CHORD 1-2=-311/32  
 BOT CHORD 1-7=-15/323

**NOTES**

- 2-ply truss to be connected together as follows:  
 Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected with 10d (0.131"x3") nails as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed;  
 Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10; Min. flat roof snow load governs.
- Unbalanced snow loads have been considered for this design.
- \* 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.

- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 4-0-0 to connect truss(es) E2 (1 ply 2x4 SP) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
- LOAD CASE(S)** Standard
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-2=-46, 3-4=-19  
 Concentrated Loads (lb)  
 Vert: 7=-387, 8=-387



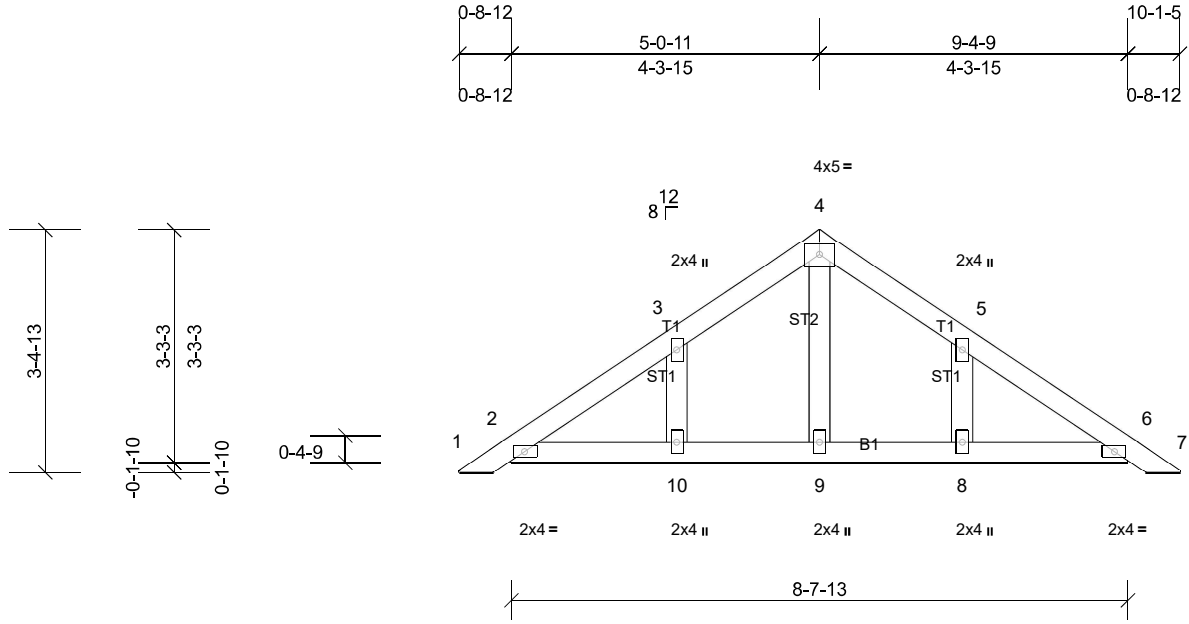
|                              |              |                         |          |          |                          |
|------------------------------|--------------|-------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>PB1 | Truss Type<br>Piggyback | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|-------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:33

Page: 1

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Scale = 1:32.3

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | I/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.06 | Vert(LL) | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.04 | Vert(CT) | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.04 | Horz(CT) | 0.00  | 6      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |          |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |           |      |          |       |        |     |        |               |          |
|              |           |                 |                 |           |      |          |       |        |     |        | Weight: 39 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.

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

**REACTIONS** All bearings 8-7-13.  
(lb) - Max Horiz 2=60 (LC 12), 11=60 (LC 12)  
Max Uplift All uplift 100 (lb) or less at joint(s) 8, 10  
Max Grav All reactions 250 (lb) or less at joint (s) 2, 6, 8, 9, 10, 11, 15

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

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-7 to 3-1-4, Interior (1) 3-1-4 to 5-1-4, Exterior(2R) 5-1-4 to 8-1-4, Interior (1) 8-1-4 to 9-11-0 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.

- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- \* 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.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 6, 9, 10, and 8. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

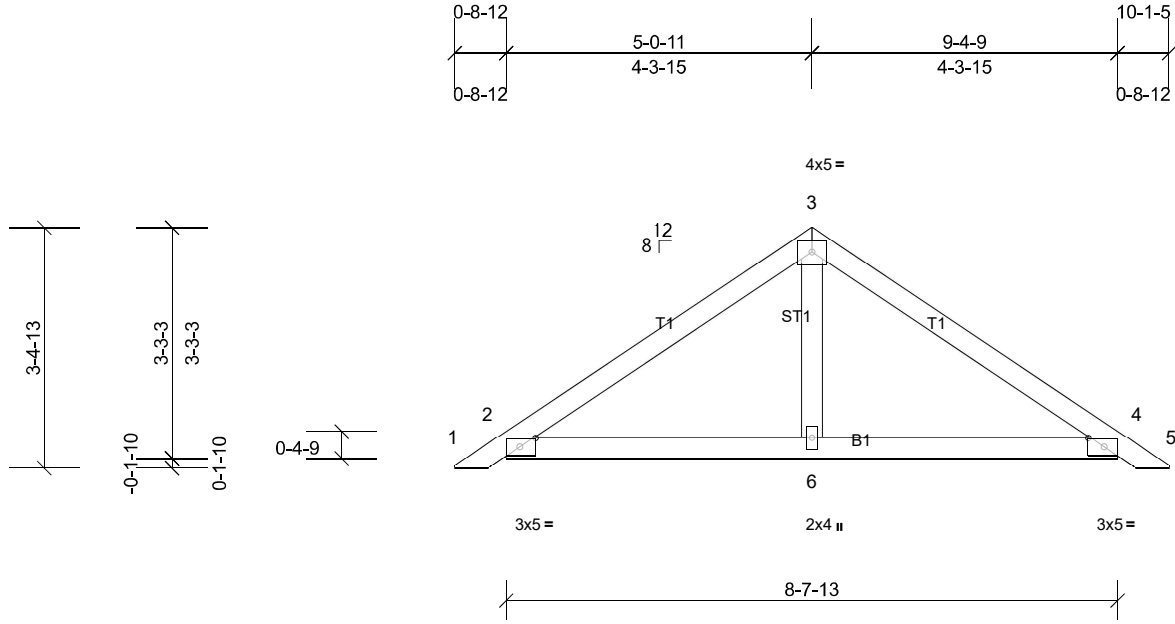
|                              |              |                         |           |          |                          |
|------------------------------|--------------|-------------------------|-----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>PB2 | Truss Type<br>Piggyback | Qty<br>11 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|-------------------------|-----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:34

Page: 1

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Scale = 1:32.6

Plate Offsets (X, Y): [2:0-2-11,0-1-8], [4:0-2-11,0-1-8]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | 0.25 | DEFL     | in   | (loc) | I/defl | L/d | PLATES        | GRIP     |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|------|-------|--------|-----|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.25 | Vert(LL) | n/a  | -     | n/a    | 999 | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.25 | Vert(CT) | n/a  | -     | n/a    | 999 |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.02 | Horz(CT) | 0.00 | 2     | n/a    | n/a |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |          |      |       |        |     |               |          |
| BCDL         | 10.0      |                 |                 |           |      |          |      |       |        |     | Weight: 35 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.

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

**REACTIONS** All bearings 8-7-13.  
(lb) - Max Horiz 2=-60 (LC 11), 7=-60 (LC 11)  
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 4, 7, 11  
Max Grav All reactions 250 (lb) or less at joint (s) 2, 4, 7, 11 except 6=263 (LC 2)

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

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-7 to 3-3-7, Interior (1) 3-3-7 to 5-1-4, Exterior(2R) 5-1-4 to 8-1-4, Interior (1) 8-1-4 to 9-11-0 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* 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.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 4, and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

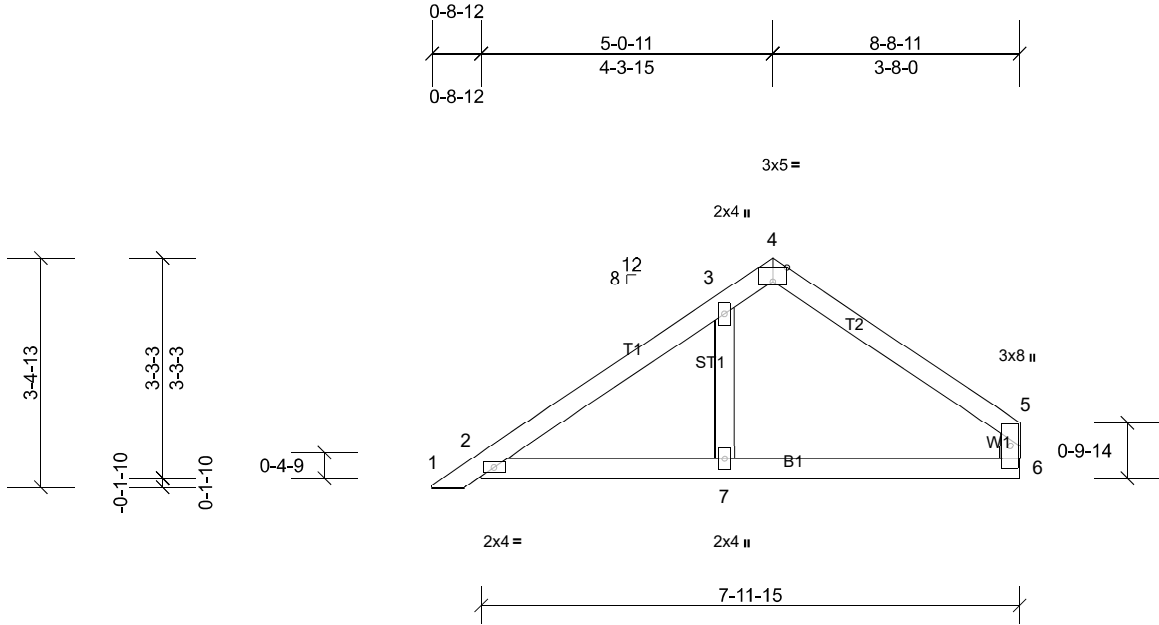
|                              |              |                         |          |          |                          |
|------------------------------|--------------|-------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>PB3 | Truss Type<br>Piggyback | Qty<br>9 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|-------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:34

Page: 1

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Scale = 1:34.2

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

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | I/defl | L/d | PLATES        | GRIP     |         |
|--------------|-----------|-----------------|-----------------|-----------|------|----------|-------|--------|-----|---------------|----------|---------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.23 | Vert(LL) | n/a   | -      | n/a | 999           | MT20     | 244/190 |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.12 | Vert(CT) | n/a   | -      | n/a | 999           |          |         |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.06 | Horz(CT) | 0.00  | 2      | n/a | n/a           |          |         |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |          |       |        |     |               |          |         |
| BCDL         | 10.0      |                 |                 |           |      |          |       |        |     |               |          |         |
|              |           |                 |                 |           |      |          |       |        |     | Weight: 32 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.

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

**REACTIONS** All bearings 7-11-15.

- (lb) - Max Horiz 2=65 (LC 12), 8=65 (LC 12)
- Max Uplift All uplift 100 (lb) or less at joint(s) 2, 6, 8
- Max Grav All reactions 250 (lb) or less at joint (s) 2, 6, 8 except 7=382 (LC 2)

**FORCES**

- (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
- WEBS 3-7=-273/79

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-7 to 3-3-7, Interior (1) 3-3-7 to 5-1-4, Exterior(2R) 5-1-4 to 8-1-4, Interior (1) 8-1-4 to 8-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* 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.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6, 2, and 7. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

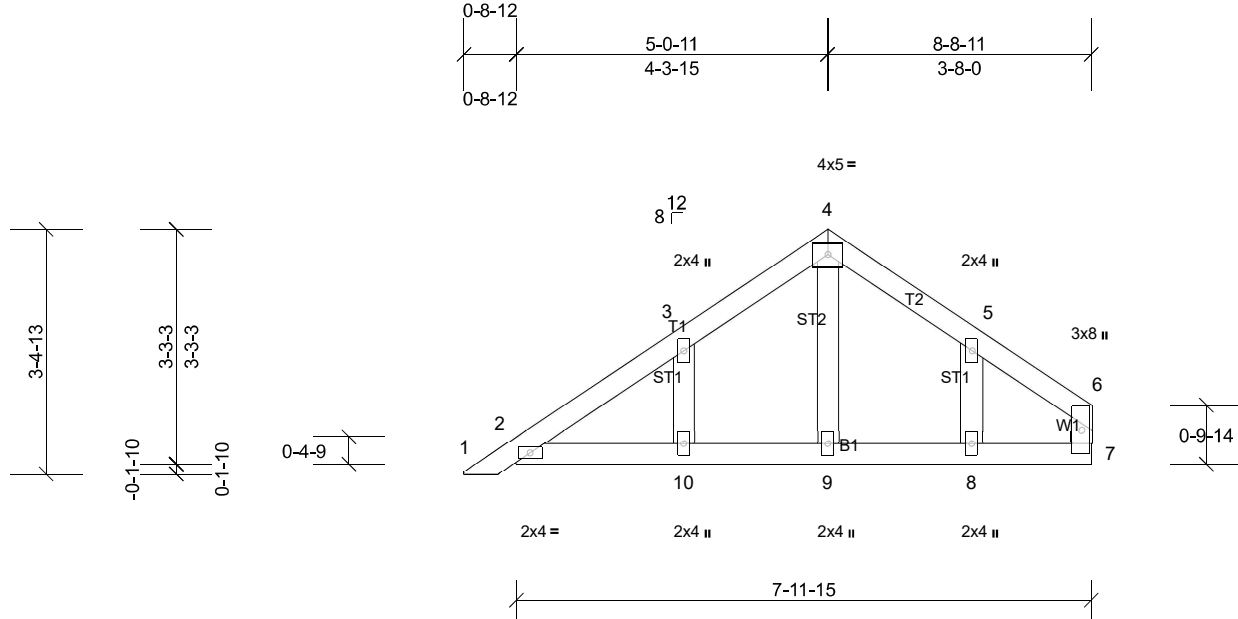
|                              |              |                         |          |          |                          |
|------------------------------|--------------|-------------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>PB4 | Truss Type<br>Piggyback | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|-------------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:34

Page: 1

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Scale = 1:32

| Loading      | (psf)     | Spacing              | 2-0-0           | CSI       | DEFL | in       | (loc) | l/defl | L/d | PLATES        | GRIP     |         |
|--------------|-----------|----------------------|-----------------|-----------|------|----------|-------|--------|-----|---------------|----------|---------|
| TCLL (roof)  | 20.0      | Plate Grip DOL       | 1.15            | TC        | 0.07 | Vert(LL) | n/a   | -      | n/a | 999           | MT20     | 244/190 |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL           | 1.15            | BC        | 0.04 | Vert(CT) | n/a   | -      | n/a | 999           |          |         |
| TCDL         | 10.0      | Rep Stress Incr Code | YES             | WB        | 0.04 | Horz(CT) | n/a   | -      | n/a | n/a           |          |         |
| BCLL         | 0.0*      |                      | IRC2018/TPI2014 | Matrix-MP |      |          |       |        |     |               |          |         |
| BCDL         | 10.0      |                      |                 |           |      |          |       |        |     |               |          |         |
|              |           |                      |                 |           |      |          |       |        |     | Weight: 36 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.

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

**REACTIONS** All bearings 7-11-15.  
(lb) - Max Horiz 2=65 (LC 12), 11=65 (LC 12)  
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 7, 8, 10, 11  
Max Grav All reactions 250 (lb) or less at joint (s) 2, 7, 8, 9, 10, 11

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

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-7 to 3-1-4, Interior (1) 3-1-4 to 5-1-4, Exterior(2R) 5-1-4 to 8-1-4, Interior (1) 8-1-4 to 8-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- \* 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.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7, 2, 9, 10, and 8. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

|                              |              |                      |          |          |                          |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL1 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:34

Page: 1

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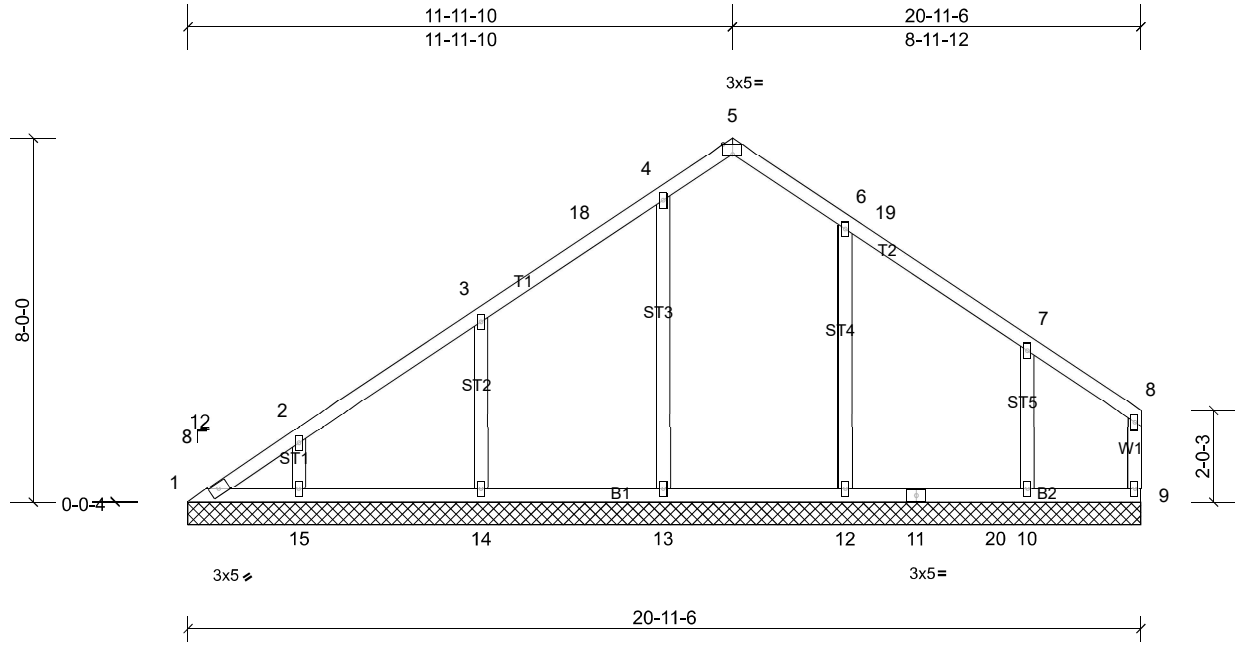


Plate Offsets (X, Y): [5:0-2-8,Edge]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in (loc)  | I/defl | L/d | PLATES | GRIP                    |
|--------------|-----------|-----------------|-----------------|------------|------|-----------|--------|-----|--------|-------------------------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.18 | Vert(LL)  | n/a    | -   | n/a    | 999                     |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.17 | Vert(TL)  | n/a    | -   | n/a    | 999                     |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.21 | Horiz(TL) | 0.00   | 9   | n/a    | n/a                     |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |           |        |     |        |                         |
| BCDL         | 10.0      |                 |                 |            |      |           |        |     |        |                         |
|              |           |                 |                 |            |      |           |        |     |        | Weight: 101 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.

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

- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- \* 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 1, 13, 14, 15 except (jt=lb) 10=112.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS**

- All bearings 20-11-6.
- (lb) - Max Horiz 1=165 (LC 10)
- Max Uplift All uplift 100 (lb) or less at joint(s) 1, 13, 14, 15 except 10=-112 (LC 14)
- Max Grav All reactions 250 (lb) or less at joint (s) 1, 9 except 10=387 (LC 25), 12=426 (LC 25), 13=446 (LC 24), 14=431 (LC 24), 15=338 (LC 24)

**FORCES**

- (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
- WEBS 3-14=-256/154

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 12-0-0, Exterior(2R) 12-0-0 to 15-0-0, Interior (1) 15-0-0 to 20-10-0 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

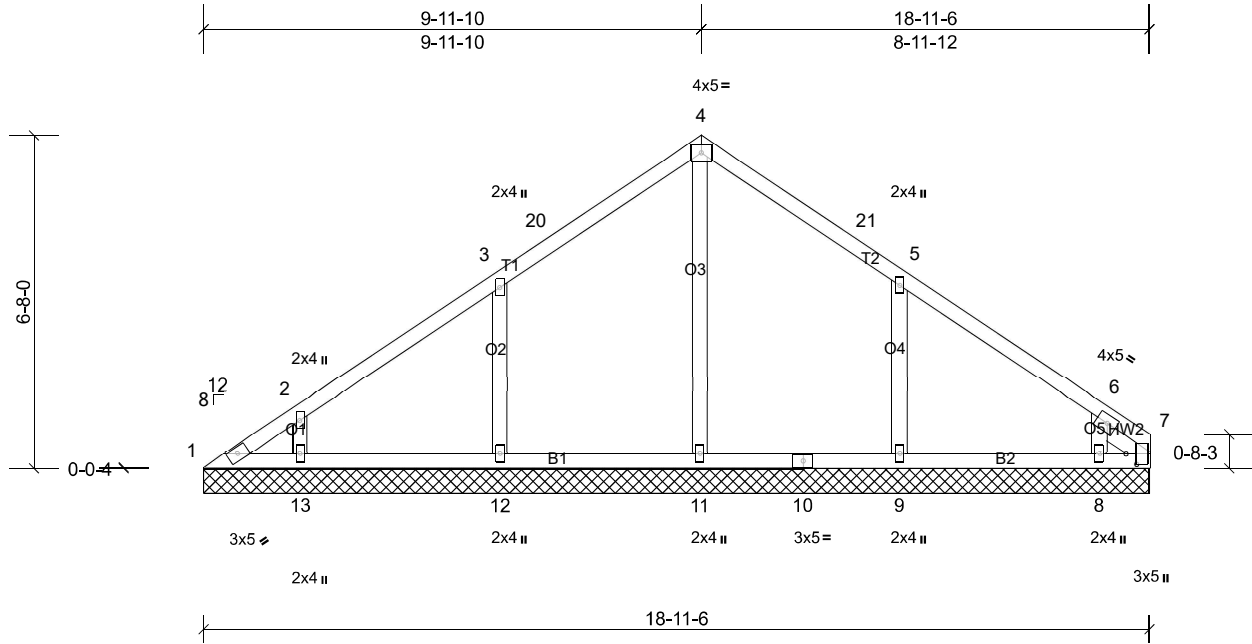
|                              |              |                      |          |          |                          |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL2 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:34

Page: 1

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Scale = 1:46.2

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

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in (loc)  | I/defl | L/d | PLATES | GRIP |               |          |
|--------------|-----------|-----------------|-----------------|------------|------|-----------|--------|-----|--------|------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.20 | Vert(LL)  | n/a    | -   | n/a    | 999  | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.17 | Vert(TL)  | n/a    | -   | n/a    | 999  |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.13 | Horiz(TL) | 0.00   | 7   | n/a    | n/a  |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |           |        |     |        |      |               |          |
| BCDL         | 10.0      |                 |                 |            |      |           |        |     |        |      | Weight: 85 lb | FT = 20% |

- LUMBER**
- TOP CHORD 2x4 SP No.2
  - BOT CHORD 2x4 SP No.2
  - OTHERS 2x4 SP No.3
  - SLIDER Right 2x4 SP No.3 -- 1-0-12

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

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

- Gable requires continuous bottom chord bearing.
- \* 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 1, 7, 12, 13, 9, 8, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

- REACTIONS** All bearings 18-11-6.
- (lb) - Max Horiz 1=121 (LC 10)
  - Max Uplift All uplift 100 (lb) or less at joint(s) 1, 7, 8, 9, 12, 13, 16
  - Max Grav All reactions 250 (lb) or less at joint (s) 1, 7, 16 except 8=329 (LC 25), 9=446 (LC 25), 11=363 (LC 24), 12=452 (LC 24), 13=318 (LC 24)

- FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
- WEBS** 3-12=-277/142, 5-9=-273/139

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior (1) 13-0-0 to 18-11-12 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - All plates are 2x4 MT20 unless otherwise indicated.

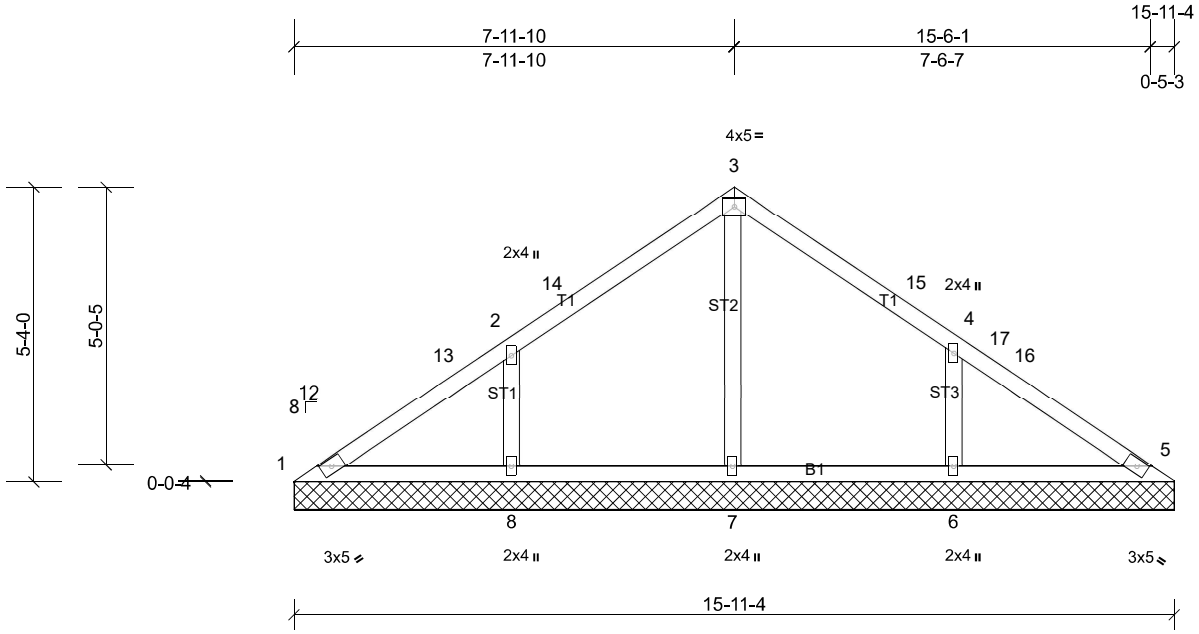
|                              |              |                      |          |          |                          |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL3 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:35

Page: 1

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Scale = 1:41.7

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in        | (loc) | I/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|------------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.23 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.13 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.12 | Horiz(TL) | 0.00  | 5      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |            |      |           |       |        |     |        | Weight: 64 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.

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 8, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** All bearings 15-11-4.  
 (lb) - Max Horiz 1=97 (LC 10)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 6, 8  
 Max Grav All reactions 250 (lb) or less at joint (s) 1, 5 except 6=366 (LC 25), 7=302 (LC 2), 8=385 (LC 24)

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

**WEBS** 2-8=-277/143, 4-6=-267/143

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior (1) 11-0-0 to 15-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - 4) Gable requires continuous bottom chord bearing.
  - 5) \* 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.

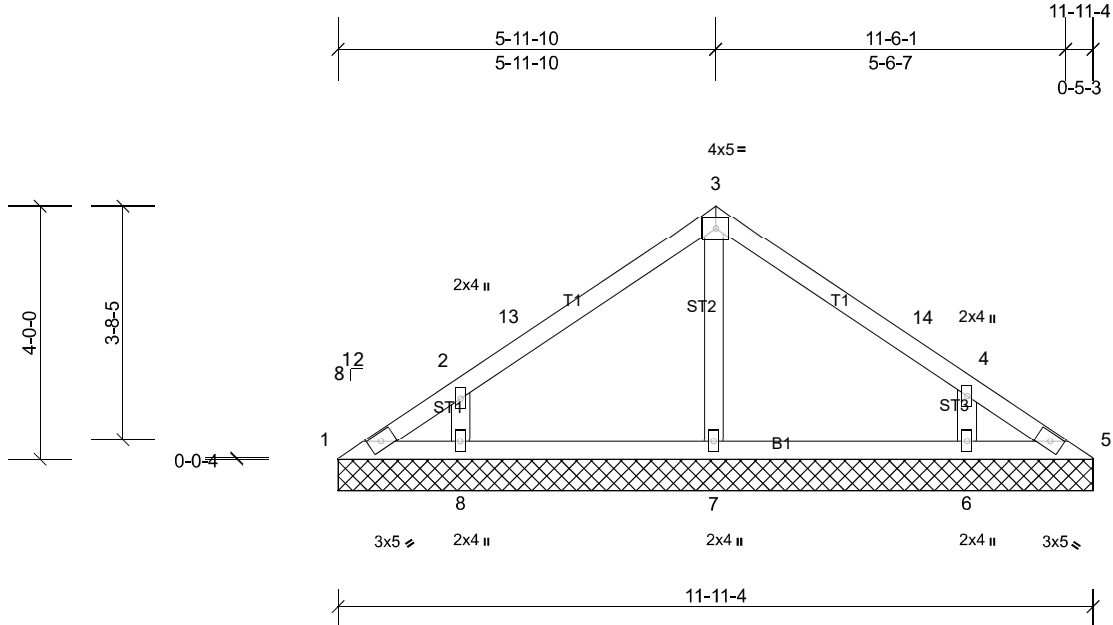
|                              |              |                      |          |          |                          |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL4 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|

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Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:35

Page: 1

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Scale = 1:36.4

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|------------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.18 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.09 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.05 | Horiz(TL) | 0.00  | 5      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |            |      |           |       |        |     |        | Weight: 45 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.

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 1, 8, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** All bearings 11-11-4.  
(lb) - Max Horiz 1=72 (LC 12)  
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 6, 8  
Max Grav All reactions 250 (lb) or less at joint (s) 1, 5 except 6=305 (LC 25), 7=260 (LC 2), 8=309 (LC 24)

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

**WEBS** 2-8=-260/182, 4-6=-251/176

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior (1) 9-0-0 to 11-11-10 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - 4) Gable requires continuous bottom chord bearing.
  - 5) \* 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.



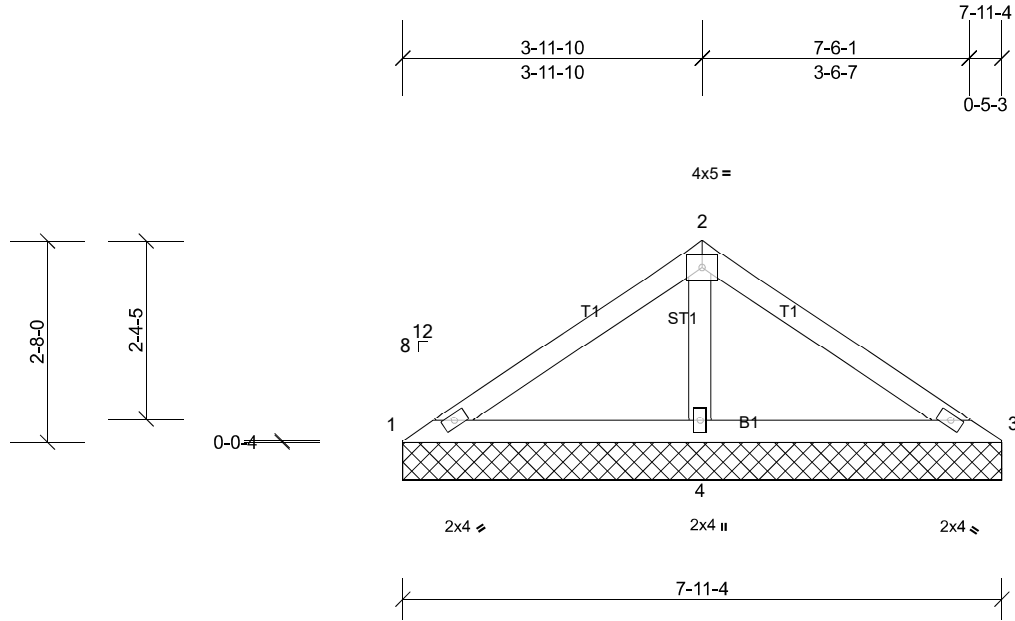
|                              |              |                      |          |          |                          |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL5 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:35

Page: 1

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Scale = 1:30.5

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.20 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.19 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.09 | Horiz(TL) | 0.00  | 3      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |           |      |           |       |        |     |        | Weight: 27 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 7-11-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

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

**REACTIONS** (lb/size) 1=31/7-11-4, (min. 0-1-8), 3=34/7-11-4, (min. 0-1-8), 4=47/7-11-4, (min. 0-1-8)  
Max Horiz 1=-47 (LC 9)  
Max Uplift 1=-12 (LC 31), 3=-9 (LC 30)  
Max Grav 1=67 (LC 30), 3=70 (LC 31), 4=558 (LC 2)

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

**WEBS** 2-4=-401/188

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 4-0-0, Exterior(2R) 4-0-0 to 7-0-7, Interior (1) 7-0-7 to 7-11-10 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 9 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

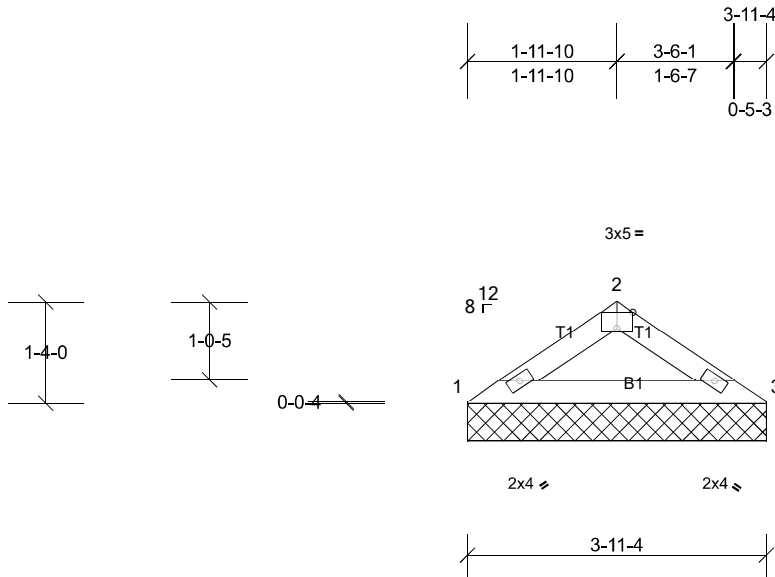
|                              |              |                      |          |          |                          |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL6 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:35

Page: 1

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Scale = 1:30.4

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

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in        | (loc) | l/defl | L/d | PLATES        | GRIP     |         |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|---------------|----------|---------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.11 | Vert(LL)  | n/a   | -      | n/a | 999           | MT20     | 244/190 |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.10 | Vert(TL)  | n/a   | -      | n/a | 999           |          |         |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.00 | Horiz(TL) | 0.00  | 3      | n/a | n/a           |          |         |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |           |       |        |     |               |          |         |
| BCDL         | 10.0      |                 |                 |           |      |           |       |        |     |               |          |         |
|              |           |                 |                 |           |      |           |       |        |     | Weight: 11 lb | FT = 20% |         |

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS** (lb/size) 1=133/3-11-4, (min. 0-1-8),  
3=133/3-11-4, (min. 0-1-8)  
Max Horiz 1=22 (LC 12)  
Max Grav 1=158 (LC 2), 3=158 (LC 2)

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

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- \* 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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

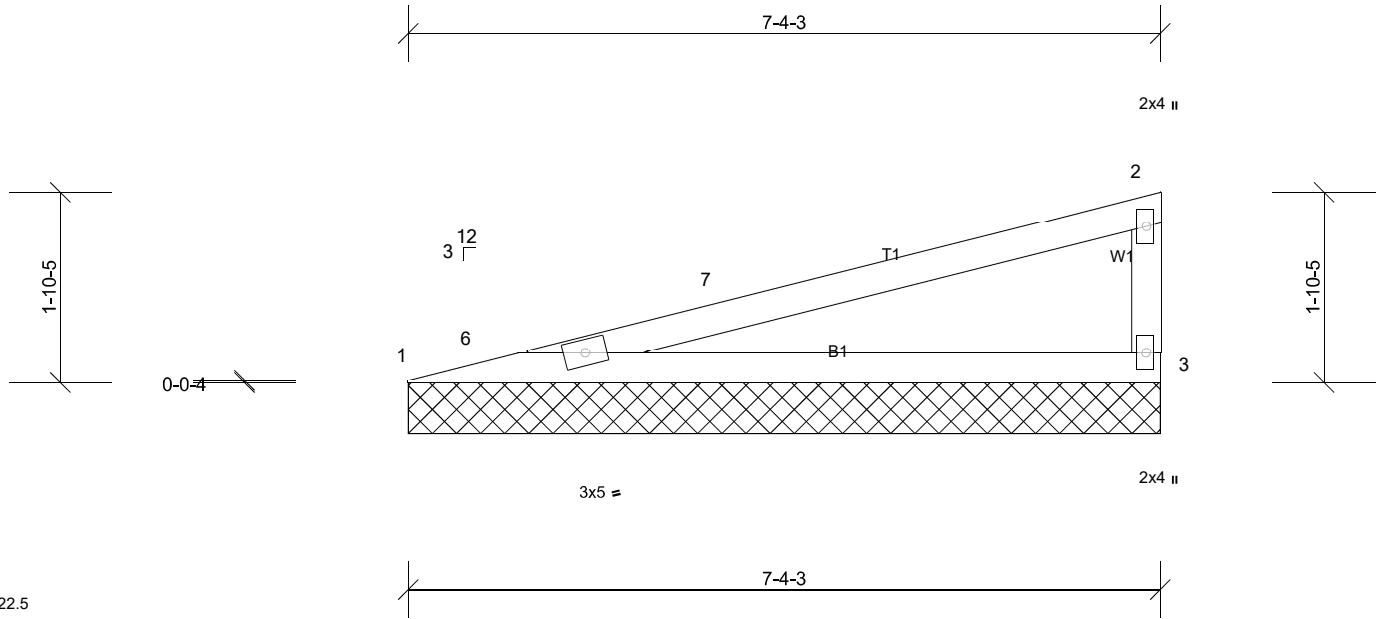
|                              |              |                      |          |          |                          |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL7 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:35

Page: 1

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Scale = 1:22.5

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.78 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.87 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.00 | Horiz(TL) | 0.02  | 3      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |           |      |           |       |        |     |        | Weight: 22 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 3 and 4 lb uplift at joint 1.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** (lb/size) 1=244/7-4-3, (min. 0-1-8),  
3=244/7-4-3, (min. 0-1-8)  
Max Horiz 1=47 (LC 12)  
Max Uplift 1=-4 (LC 11), 3=-8 (LC 15)  
Max Grav 1=305 (LC 21), 3=317 (LC 21)

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

TOP CHORD 1-6=-936/293, 1-6=-918/296  
BOT CHORD 1-3=-396/901

#### NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-0 to 3-1-0, Interior (1) 3-1-0 to 7-3-7 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10; Min. flat roof snow load governs.
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) \* 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.

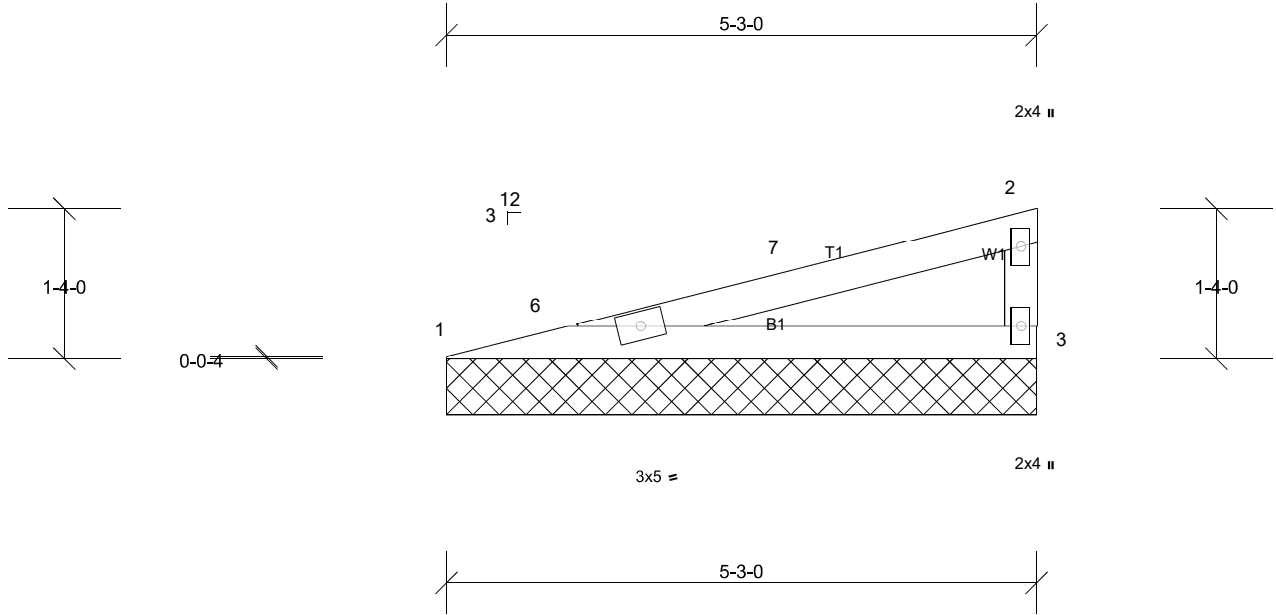
|                              |              |                      |          |          |                          |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL8 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:35

Page: 1

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Scale = 1:20.5

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.33 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.41 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.00 | Horiz(TL) | 0.01  | 3      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |           |      |           |       |        |     |        |               |          |
|              |           |                 |                 |           |      |           |       |        |     |        | Weight: 15 lb | FT = 20% |

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-3-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 3 and 3 lb uplift at joint 1.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** (lb/size) 1=173/5-3-0, (min. 0-1-8),  
 3=173/5-3-0, (min. 0-1-8)  
 Max Horiz 1=32 (LC 12)  
 Max Uplift 1=-3 (LC 11), 3=-5 (LC 15)  
 Max Grav 1=225 (LC 21), 3=225 (LC 21)

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

TOP CHORD 1-6=-588/267, 1-6=-572/269  
 BOT CHORD 1-3=-354/562

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-0 to 3-1-0, Interior (1) 3-1-0 to 5-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10; Min. flat roof snow load governs.
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) \* 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.

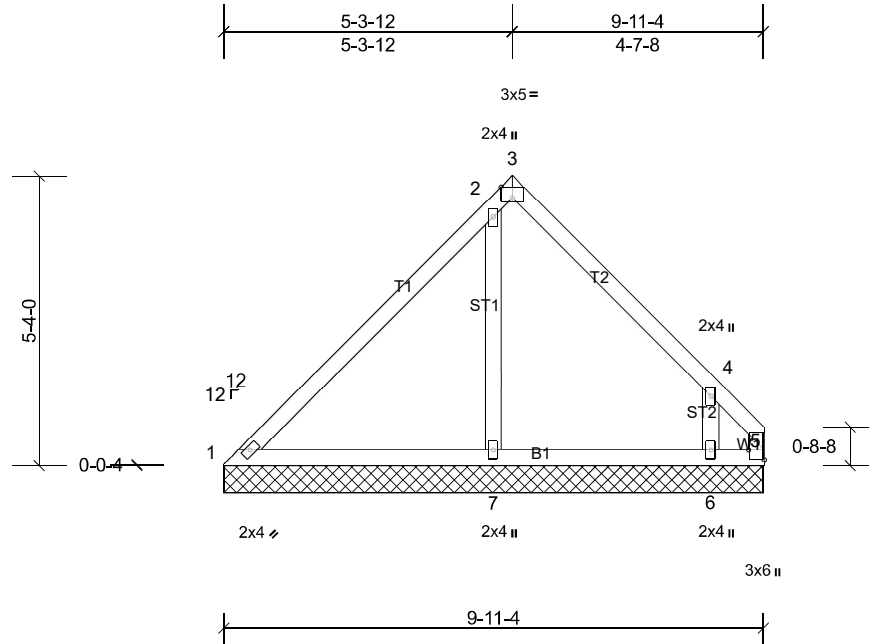
|                              |              |                      |          |          |                          |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL9 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|--------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:35

Page: 1

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Scale = 1:42.4

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

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in        | (loc) | I/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|------------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.30 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.22 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.19 | Horiz(TL) | 0.00  | 7      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |            |      |           |       |        |     |        |               |          |
|              |           |                 |                 |            |      |           |       |        |     |        | Weight: 44 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 6-0-0 oc bracing.

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

- 4) Gable requires continuous bottom chord bearing.
- 5) \* 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 1 except (jt=lb) 5=181, 7=121, 6=137.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** All bearings 9-11-4.  
(lb) - Max Horiz 1=96 (LC 10)  
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 5=-182 (LC 30), 6=-138 (LC 14), 7=-121 (LC 13)  
Max Grav All reactions 250 (lb) or less at joint (s) 1, 5 except 6=326 (LC 25), 7=597 (LC 24)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-145/265, 4-5=-324/435  
WEBS 2-7=-461/224, 4-6=-418/295

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 5-4-0, Exterior(2R) 5-4-0 to 8-4-0, Interior (1) 8-4-0 to 9-9-12 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

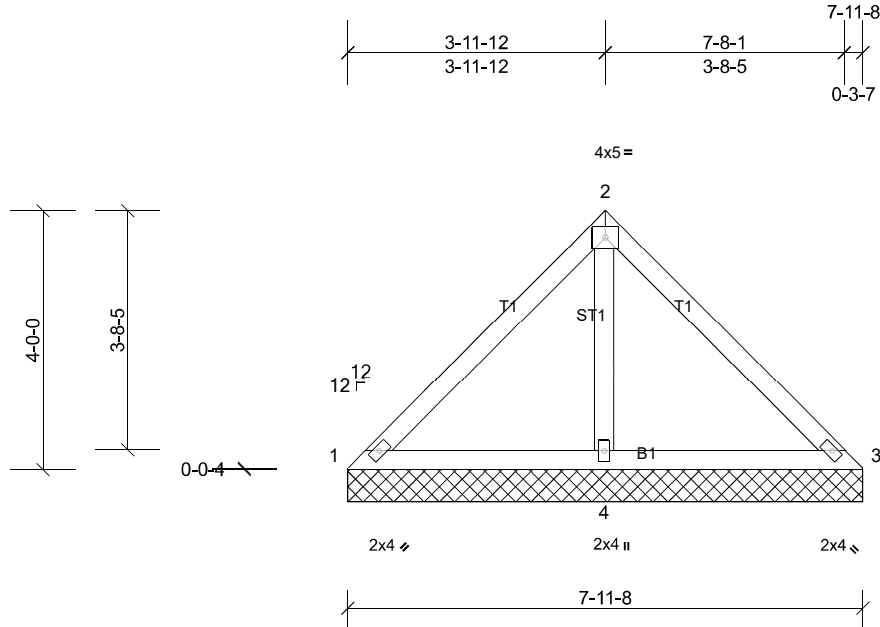
|                              |               |                      |          |          |                          |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL10 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:35

Page: 1

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Scale = 1:35.6

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.22 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.21 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.15 | Horiz(TL) | 0.00  | 3      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |           |      |           |       |        |     |        |               |          |
|              |           |                 |                 |           |      |           |       |        |     |        | Weight: 32 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 7-11-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

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

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 1, 3, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** All bearings 7-11-8.  
(lb) - Max Horiz 1=-71 (LC 9)  
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 3, 9  
Max Grav All reactions 250 (lb) or less at joint (s) 1, 3, 9 except 4=641 (LC 2)

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

TOP CHORD 1-2=-52/274, 2-3=-27/278

WEBS 2-4=-493/84

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 4-0-0, Exterior(2R) 4-0-0 to 7-3-9, Interior (1) 7-3-9 to 7-11-12 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - Gable requires continuous bottom chord bearing.

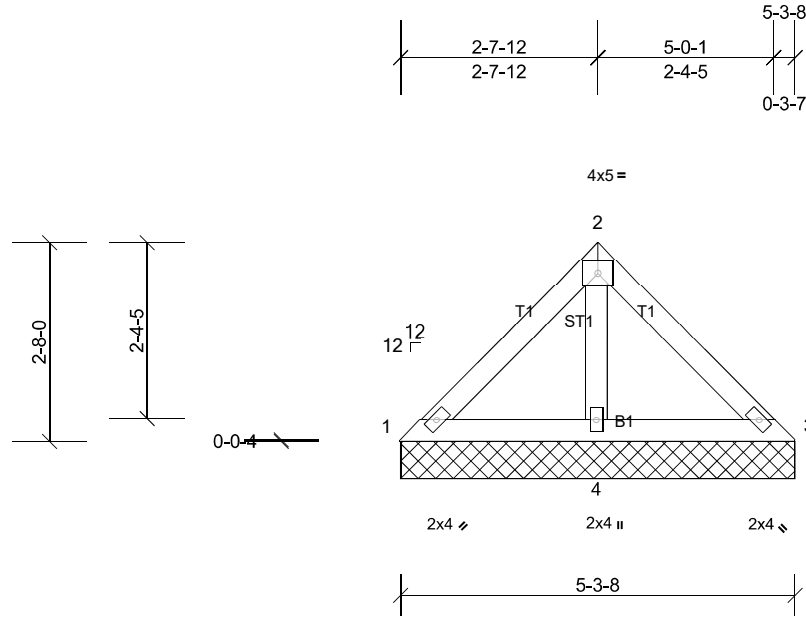
|                              |               |                      |          |          |                          |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL11 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:35

Page: 1

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Scale = 1:30.9

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in        | (loc) | I/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.09 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.12 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.05 | Horiz(TL) | 0.00  | 3      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |           |      |           |       |        |     |        | Weight: 21 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 5-3-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** (lb/size) 1=43/5-3-8, (min. 0-1-8),  
 3=45/5-3-8, (min. 0-1-8),  
 4=271/5-3-8, (min. 0-1-8)  
 Max Horiz 1=-46 (LC 9)  
 Max Uplift 4=-10 (LC 13)  
 Max Grav 1=64 (LC 30), 3=66 (LC 31), 4=319 (LC 2)

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

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) \* 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.

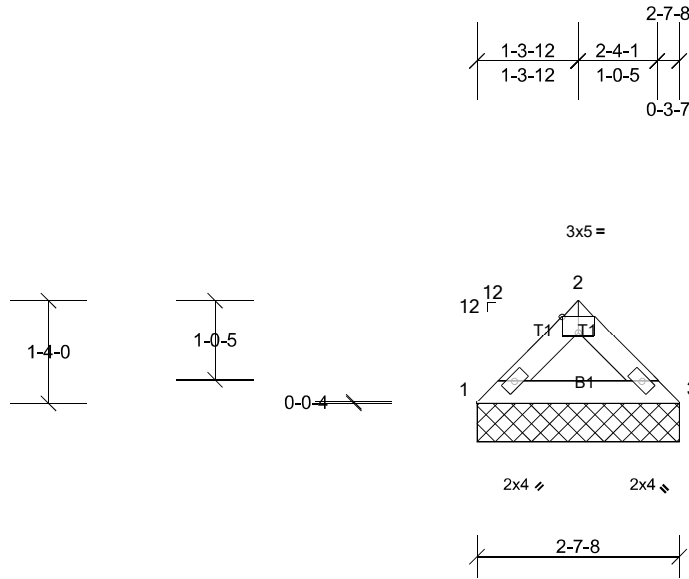
|                              |               |                      |          |          |                          |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL12 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:36

Page: 1

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Scale = 1:29.9

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

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP         |          |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|--------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.05 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20         | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.04 | Vert(TL)  | n/a   | -      | n/a | 999    |              |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.00 | Horiz(TL) | 0.00  | 3      | n/a | n/a    |              |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |           |       |        |     |        |              |          |
| BCDL         | 10.0      |                 |                 |           |      |           |       |        |     |        | Weight: 8 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 2-7-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS** (lb/size) 1=89/2-7-8, (min. 0-1-8),  
3=89/2-7-8, (min. 0-1-8)  
Max Horiz 1=21 (LC 12)  
Max Grav 1=105 (LC 2), 3=105 (LC 2)

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

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- \* 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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard







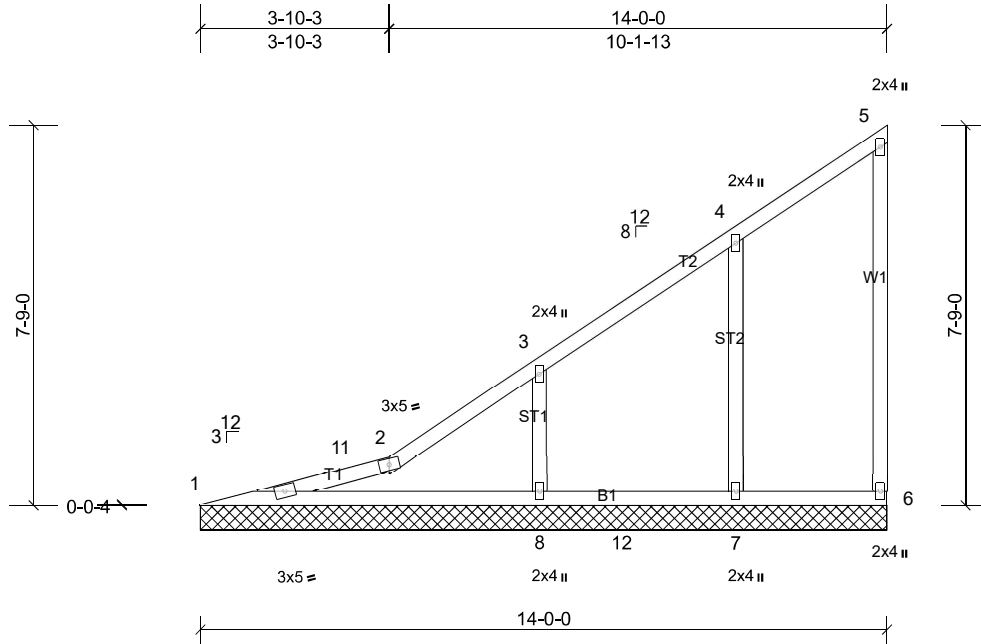
|                              |               |                      |          |          |                          |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL15 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:36

Page: 1

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Scale = 1:47

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|------------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.58 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.62 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.11 | Horiz(TL) | 0.01  | 6      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |            |      |           |       |        |     |        |               |          |
|              |           |                 |                 |            |      |           |       |        |     |        | Weight: 65 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 6-0-0 oc bracing.

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

- 4) Gable requires continuous bottom chord bearing.
- 5) \* 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 6, 1, 8, 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** All bearings 14-0-0.  
(lb) - Max Horiz 1=216 (LC 12)  
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 6, 7, 8  
Max Grav All reactions 250 (lb) or less at joint (s) 1, 6 except 7=341 (LC 28), 8=612 (LC 28)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-11=-684/203, 2-11=-366/209, 2-3=-364/250, 3-4=-278/179  
BOT CHORD 1-8=-113/619  
WEBS 3-8=-361/185

- NOTES**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-0 to 3-1-0, Interior (1) 3-1-0 to 13-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10; Min. flat roof snow load governs.
  - 3) Unbalanced snow loads have been considered for this design.

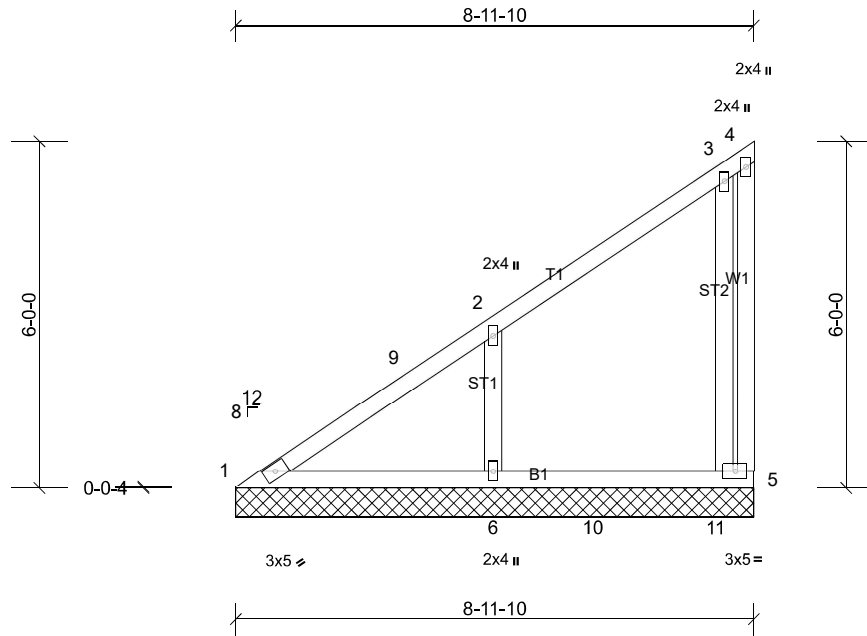
|                              |               |                      |          |          |                          |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL16 | Truss Type<br>Valley | Qty<br>2 | Ply<br>1 | Job Reference (optional) |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:36

Page: 1

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Scale = 1:39.9

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.52 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.23 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.12 | Horiz(TL) | 0.00  | 5      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |           |      |           |       |        |     |        |               |          |
|              |           |                 |                 |           |      |           |       |        |     |        | Weight: 48 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

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 5 and 51 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**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.

**LOAD CASE(S)** Standard

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

**REACTIONS** (lb/size)  
1=124/8-11-10, (min. 0-1-8),  
5=121/8-11-10, (min. 0-1-8),  
6=352/8-11-10, (min. 0-1-8)  
Max Horiz 1=165 (LC 10)  
Max Uplift 5=-29 (LC 10), 6=-51 (LC 13)  
Max Grav 1=174 (LC 25), 5=199 (LC 24),  
6=521 (LC 24)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-9=-282/176, 2-9=-261/202  
WEBS 2-6=-294/197

- NOTES**
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 8-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - Gable requires continuous bottom chord bearing.
  - \* 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.

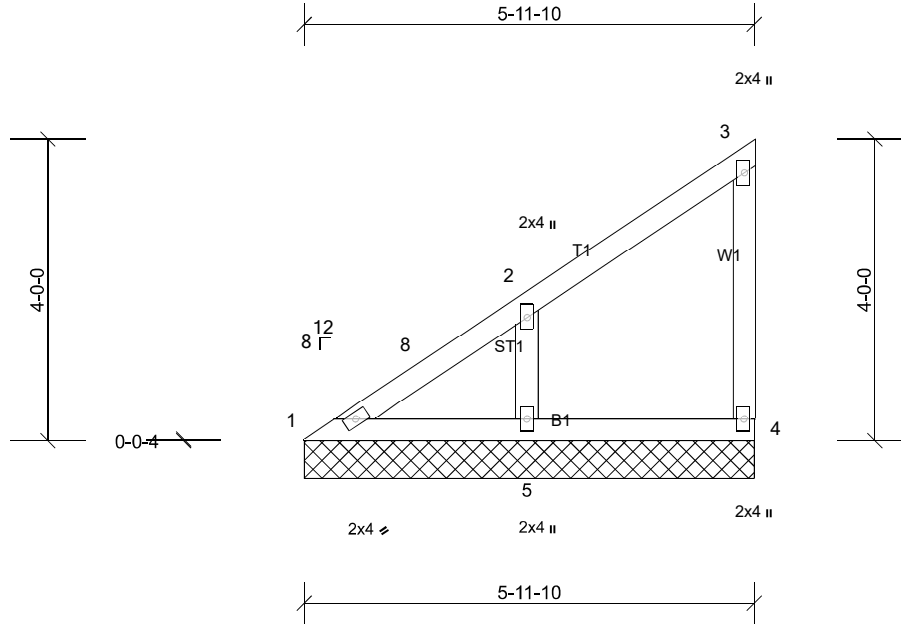
|                              |               |                      |          |          |                          |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL17 | Truss Type<br>Valley | Qty<br>2 | Ply<br>1 | Job Reference (optional) |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:36

Page: 1

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Scale = 1:30.6

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.20 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.07 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.06 | Horiz(TL) | 0.00  | 4      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |           |      |           |       |        |     |        |               |          |
|              |           |                 |                 |           |      |           |       |        |     |        | Weight: 26 lb | FT = 20% |

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

6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-11-10 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS** (lb/size) 1=76/5-11-10, (min. 0-1-8),  
4=73/5-11-10, (min. 0-1-8),  
5=245/5-11-10, (min. 0-1-8)  
Max Horiz 1=107 (LC 10)  
Max Uplift 4=-16 (LC 10), 5=-39 (LC 13)  
Max Grav 1=102 (LC 25), 4=94 (LC 24),  
5=296 (LC 24)

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

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-6 to 2-11-13, Interior (1) 2-11-13 to 5-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Gable requires continuous bottom chord bearing.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 4 and 39 lb uplift at joint 5.

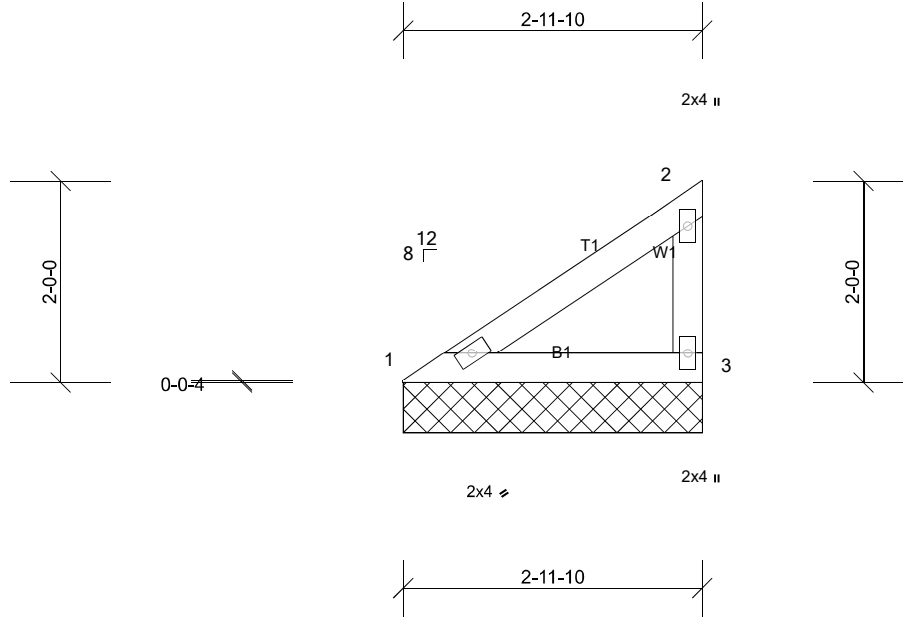
|                              |               |                      |          |          |                          |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL18 | Truss Type<br>Valley | Qty<br>2 | Ply<br>1 | Job Reference (optional) |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:36

Page: 1

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Scale = 1:22.9

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI       | DEFL | in        | (loc) | I/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC        | 0.09 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC        | 0.11 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB        | 0.00 | Horiz(TL) | 0.00  | 3      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MP |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |           |      |           |       |        |     |        |               |          |
|              |           |                 |                 |           |      |           |       |        |     |        | Weight: 11 lb | FT = 20% |

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-10 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS** (lb/size) 1=96/2-11-10, (min. 0-1-8),  
3=96/2-11-10, (min. 0-1-8)  
Max Horiz 1=49 (LC 10)  
Max Uplift 3=-8 (LC 13)  
Max Grav 1=113 (LC 2), 3=118 (LC 24)

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

#### NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Gable requires continuous bottom chord bearing.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

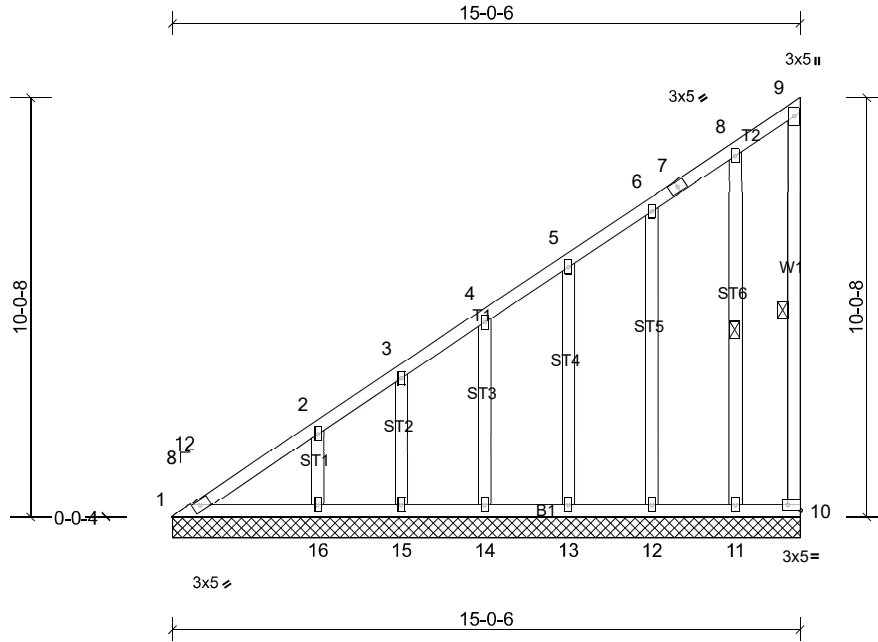
|                              |               |                      |          |          |                          |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL19 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:36

Page: 1

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Scale = 1:55.2

Plate Offsets (X, Y): [10:Edge,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  | 1.15            | TC         | 0.94 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20           | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.27 | Vert(TL)  | n/a   | -      | n/a | 999    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.13 | Horiz(TL) | 0.00  | 10     | n/a | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |           |       |        |     |        |                |          |
| BCDL         | 10.0      |                 |                 |            |      |           |       |        |     |        |                |          |
|              |           |                 |                 |            |      |           |       |        |     |        | Weight: 108 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" oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.  
WEBS 1 Row at midpt 9-10, 8-11

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

**REACTIONS** All bearings 15-0-6.  
(lb) - Max Horiz 1=282 (LC 10)  
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 10, 11, 12, 13, 14, 15, 16  
Max Grav All reactions 250 (lb) or less at joint (s) 1, 10, 11, 12, 13, 14, 15 except 16=284 (LC 24)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-448/371, 2-3=-387/311, 3-4=-337/286, 4-5=-285/250

**NOTES**  
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 14-11-0 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2'-0" oc.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06"-00 tall by 2'-00"-00 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 1, 10, 14, 15, 16, 13, 12, 11.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

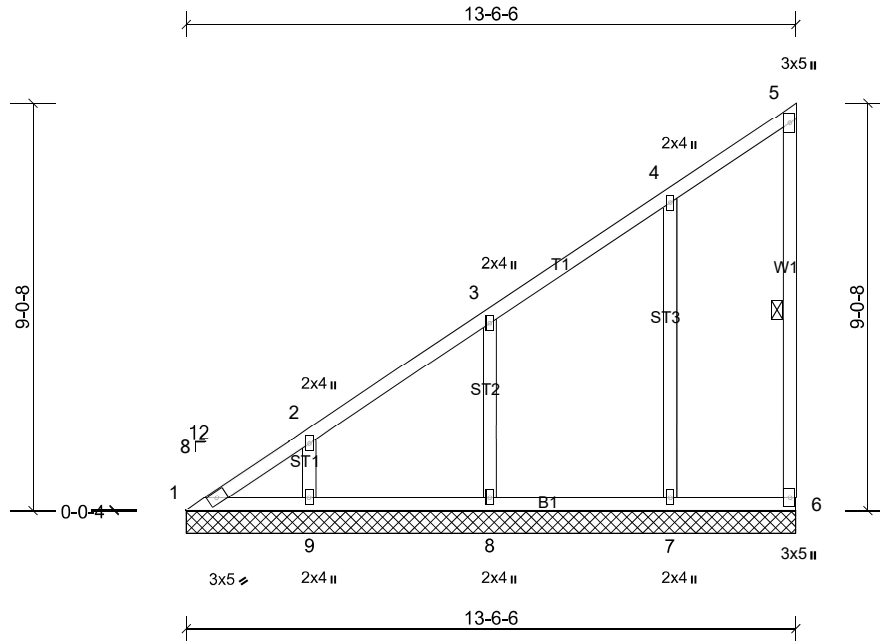
|                              |               |                      |          |          |                          |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL20 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:36

Page: 1

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Scale = 1:51.1

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        |      | DEFL      | in   | (loc) | l/defl | L/d | PLATES        | GRIP     |
|--------------|-----------|-----------------|-----------------|------------|------|-----------|------|-------|--------|-----|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.80 | Vert(LL)  | n/a  | -     | n/a    | 999 | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.22 | Vert(TL)  | n/a  | -     | n/a    | 999 |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.21 | Horiz(TL) | 0.00 | 6     | n/a    | n/a |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |           |      |       |        |     |               |          |
| BCDL         | 10.0      |                 |                 |            |      |           |      |       |        |     | Weight: 74 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" oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.  
 WEBS 1 Row at midpt 5-6

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

- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06"-00 tall by 2'-00"-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 6, 1, 8, 9, 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** All bearings 13'-6"-6."  
 (lb) - Max Horiz 1=253 (LC 10)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 1, 6, 7, 8, 9  
 Max Grav All reactions 250 (lb) or less at joint (s) 1, 6 except 7=412 (LC 24), 8=439 (LC 24), 9=347 (LC 24)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-442/355, 2-3=-361/298  
 WEBS 3-8=-261/174

- NOTES**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-6 to 2-9-3, Interior (1) 2-9-3 to 13-5-0 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - 3) Gable requires continuous bottom chord bearing.



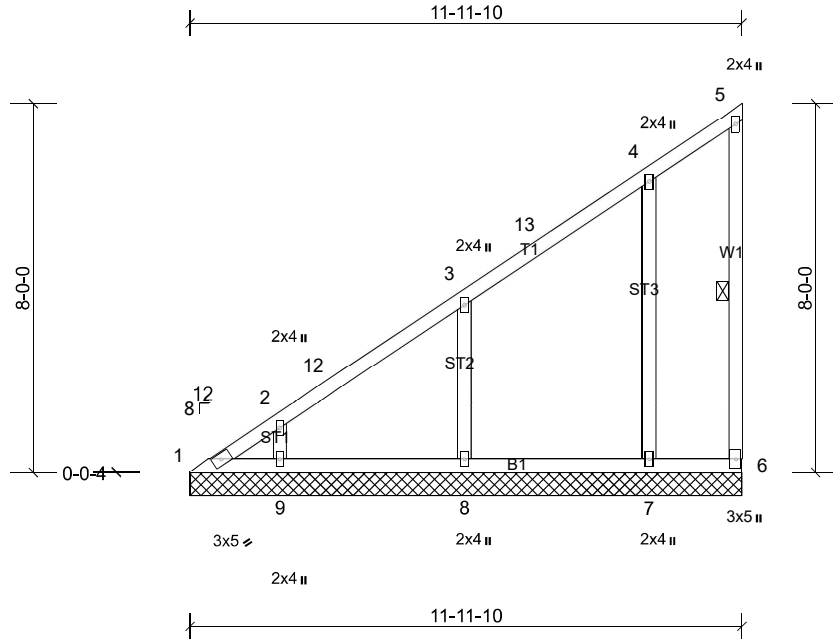
|                              |               |                      |          |          |                          |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|
| Job<br>22050129 - Base house | Truss<br>VL21 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | Job Reference (optional) |
|------------------------------|---------------|----------------------|----------|----------|--------------------------|

Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Wed May 25 14:19:37

Page: 1

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Scale = 1:50

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI        | DEFL | in        | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|------------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.15            | TC         | 0.60 | Vert(LL)  | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 13.9/20.0 | Lumber DOL      | 1.15            | BC         | 0.17 | Vert(TL)  | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB         | 0.16 | Horiz(TL) | 0.00  | 6      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2018/TPI2014 | Matrix-MSH |      |           |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |            |      |           |       |        |     |        |               |          |
|              |           |                 |                 |            |      |           |       |        |     |        | Weight: 65 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 6-0-0 oc bracing.  
WEBS 1 Row at midpt 5-6

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

- \* 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 6, 1, 8, 9, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**REACTIONS** All bearings 11-11-10.  
(lb) - Max Horiz 1=223 (LC 10)  
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 6, 7, 8, 9  
Max Grav All reactions 250 (lb) or less at joint (s) 1, 6 except 7=363 (LC 24), 8=450 (LC 24), 9=310 (LC 24)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-404/280, 2-12=-339/208, 3-12=-315/241  
WEBS 3-8=-266/152

- NOTES**
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 11-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - Gable requires continuous bottom chord bearing.