

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 20583A  
240.3174.A CVP

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I36910254 thru I36910279

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844



April 30, 2019

Sevier, Scott

**IMPORTANT NOTE:** Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

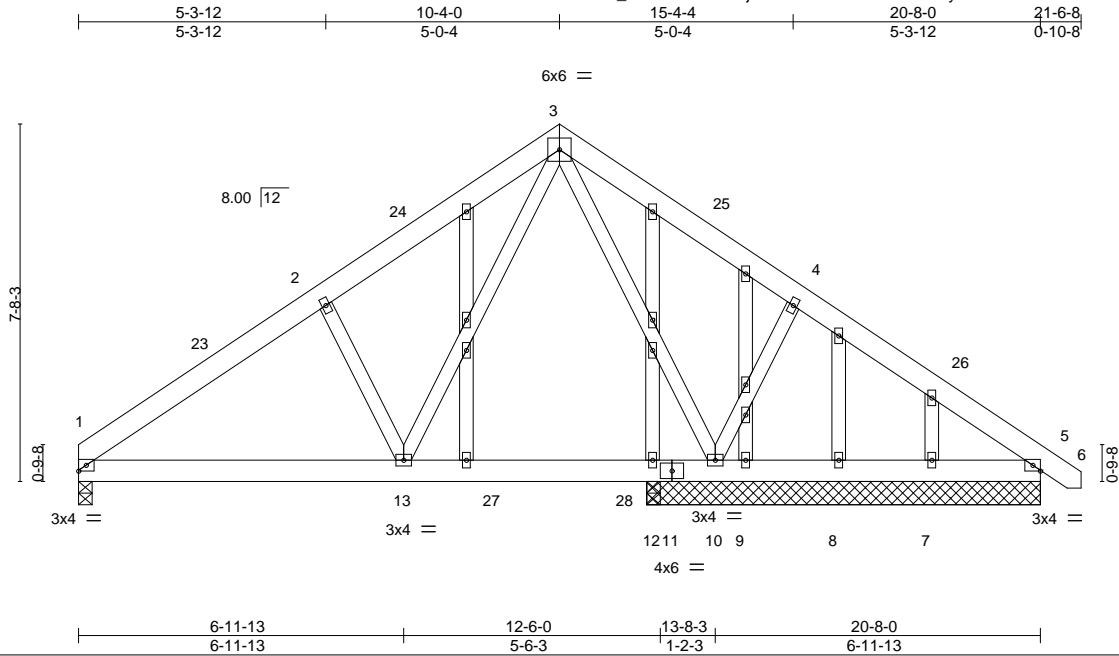
|               |             |                                    |          |          |                |           |
|---------------|-------------|------------------------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>A1 | Truss Type<br>COMMON STRUCTURAL GA | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910254 |
|---------------|-------------|------------------------------------|----------|----------|----------------|-----------|

84 Components (Dunn),

Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:34 2019 Page 1

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Scale = 1:49.5

|                        |                      |             |                              |                |             |
|------------------------|----------------------|-------------|------------------------------|----------------|-------------|
| <b>LOADING (psf)</b>   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>                 | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.16     | in (loc) l/defl L/d          | MT20           | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.20     | Vert(LL) -0.02 1-13 >999 240 |                |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.56     | Vert(CT) -0.04 1-13 >999 180 |                |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S    | Horz(CT) 0.01 5 n/a n/a      |                |             |
| BCDL 10.0              | Code IRC2015/TP12014 |             |                              | Weight: 171 lb | FT = 20%    |

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

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

**REACTIONS.** All bearings 8-5-8 except (jt=length) 1=0-3-8, 12=0-3-8, 12=0-3-8.  
(lb) - Max Horz 1=-181(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 5 except 10=-190(LC 15)  
Max Grav All reactions 250 lb or less at joint(s) 9, 8, 7, 5, 12 except 1=526(LC 2), 10=600(LC 2), 12=264(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-634/95, 2-3=-517/161  
BOT CHORD 1-13=-110/558  
WEBS 3-10=-483/85, 4-10=-316/217, 3-13=-124/473, 2-13=-298/216

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-4-0, Exterior(2) 10-4-0 to 13-4-0, Interior(1) 13-4-0 to 21-4-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) 7, 5 except (jt=lb) 10=190.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.



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**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



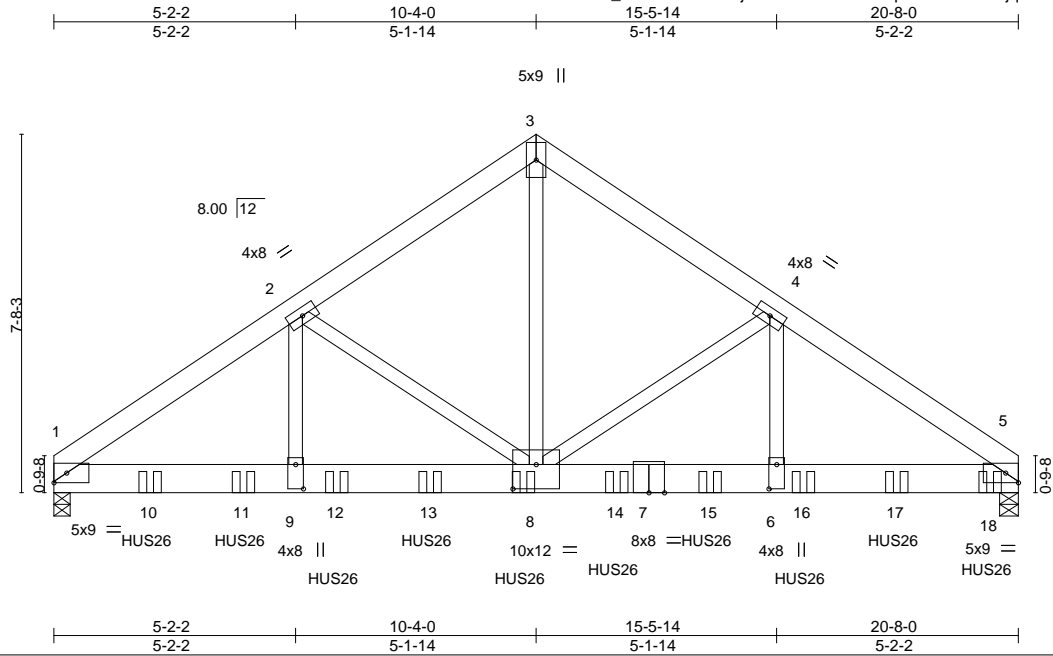
818 Soundside Road  
Edenton, NC 27932

|               |             |                             |          |          |                |           |
|---------------|-------------|-----------------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>AG | Truss Type<br>COMMON GIRDER | Qty<br>1 | Ply<br>2 | 240.3174.A CVP | 136910255 |
|---------------|-------------|-----------------------------|----------|----------|----------------|-----------|

84 Components (Dunn), Dunn, NC - 28334,

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|                       |   |
|-----------------------|---|
| Plate Offsets (X,Y)-- | [6:0-6-4,0-2-0], [8:0-6-0,0-6-4], [9:0-6-4,0-2-0] |
|-----------------------|---|

| LOADING (psf)          | SPACING-             | CSI.     | DEFL.                       | PLATES         | GRIP     |
|------------------------|----------------------|----------|-----------------------------|----------------|----------|
| TCLL (roof) 20.0       | 2-0-0                | TC 0.50  | in (loc) l/defl L/d         | MT20           | 244/190  |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.58  | Vert(LL) -0.10 6-8 >999 240 |                |          |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.88  | Vert(CT) -0.21 6-8 >999 180 |                |          |
| BCLL 0.0 *             | Rep Stress Incr NO   | Matrix-S | Horz(CT) 0.06 5 n/a n/a     |                |          |
| BCDL 10.0              | Code IRC2015/TPI2014 |          |                             | Weight: 319 lb | FT = 20% |

| LUMBER-                                       | BRACING-  |
|---|---|
| TOP CHORD 2x6 SP No.2                         | TOP CHORD Structural wood sheathing directly applied or 4-1-3 oc purlins. |
| BOT CHORD 2x8 SP DSS                          | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| WEBS 2x4 SP No.3 *Except*<br>3-8: 2x4 SP No.1 |   |

**REACTIONS.** (lb/size) 1=7326/0-4-3, 5=8428/0-4-13  
 Max Horz 1=-176(LC 29)  
 Max Uplift 1=-1061(LC 10), 5=-1217(LC 11)  
 Max Grav 1=8290(LC 2), 5=9536(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-11786/1510, 2-3=-8144/1118, 3-4=-8144/1118, 4-5=-11919/1526  
 BOT CHORD 1-9=-1259/9458, 8-9=-1259/9458, 6-8=-1161/9550, 5-6=-1161/9550  
 WEBS 3-8=-1114/8575, 4-8=-3463/577, 4-6=-485/4267, 2-8=-3350/562, 2-9=-463/4101

- NOTES-**
- 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 - 2 rows staggered at 0-3-0 oc.  
 Webs 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load); Lumber DOL=1.15 Plate DOL=1.15; Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow); Lumber DOL=1.15 Plate DOL=1.15; Category II; Exp B; Partially Exp.; Ct=1.10
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) except (jt=lb) 1=1061, 5=1217.
  - Use USP HUS26 (With 16d nails into Girder & 16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 20-0-12 to connect truss(es) to back face of bottom chord.
  - 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



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Continued on page 2

|  |   |
|--|---|
| <p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p> | <p>818 Soundside Road<br/>Edenton, NC 27932</p> |
|--|---|

|               |             |                             |          |                 |  |           |
|---------------|-------------|-----------------------------|----------|-----------------|--|-----------|
| Job<br>20583A | Truss<br>AG | Truss Type<br>COMMON GIRDER | Qty<br>1 | Ply<br><b>2</b> | 240.3174.A CVP<br>Job Reference (optional) | I36910255 |
|---------------|-------------|-----------------------------|----------|-----------------|--|-----------|

84 Components (Dunn), Dunn, NC - 28334,

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**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-3=-51, 3-5=-51, 1-5=-20

Concentrated Loads (lb)

Vert: 8=-1427(B) 10=-1437(B) 11=-1427(B) 12=-1427(B) 13=-1427(B) 14=-1427(B) 15=-1427(B) 16=-1437(B) 17=-1437(B) 18=-1443(B)

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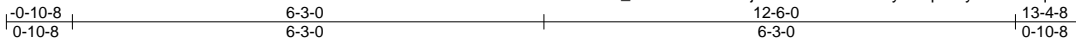
818 Soundside Road  
Edenton, NC 27932

|               |             |                     |          |          |                          |           |
|---------------|-------------|---------------------|----------|----------|--------------------------|-----------|
| Job<br>20583A | Truss<br>BE | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | 240.3174.A CVP           | 136910256 |
|               |             |                     |          |          | Job Reference (optional) |           |

84 Components (Dunn), Dunn, NC - 28334,

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3x4 =

Scale = 1:30.5

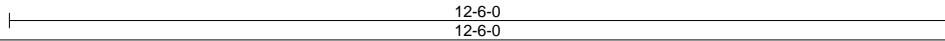
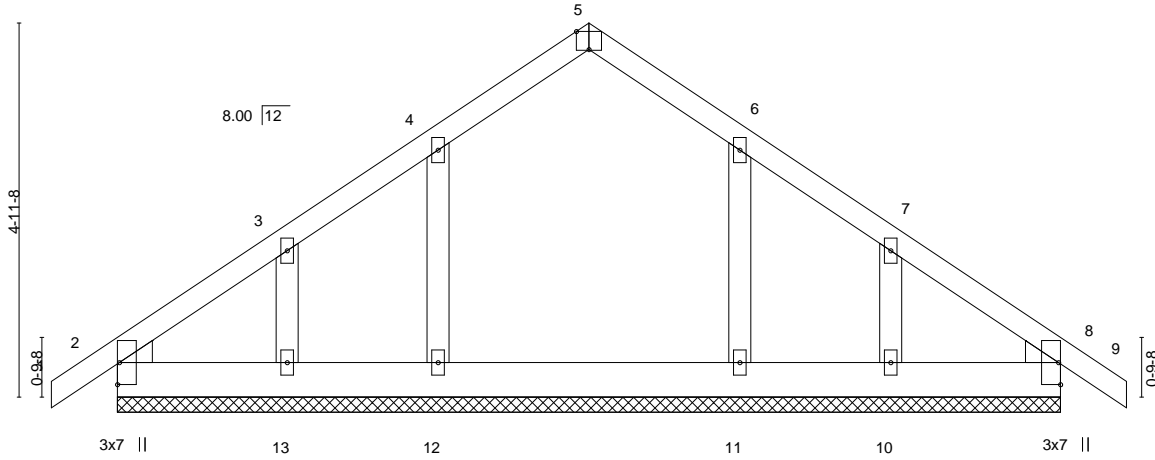


Plate Offsets (X,Y)-- [2:0-0-3,0-3-13], [2:0-0-2,0-0-2], [5:0-2-0,Edge], [8:0-0-2,0-0-2], [8:0-0-3,0-3-13]

| LOADING (psf)          | SPACING-             | CSI.     | DEFL.                    | PLATES        | GRIP     |
|------------------------|----------------------|----------|--------------------------|---------------|----------|
| TCLL (roof) 20.0       | 2-0-0                | TC 0.05  | in (loc) l/defl L/d      | MT20          | 244/190  |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.04  | Vert(LL) -0.00 8 n/r 120 |               |          |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.03  | Vert(CT) -0.00 8 n/r 120 |               |          |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S | Horz(CT) 0.00 8 n/a n/a  |               |          |
| BCDL 10.0              | Code IRC2015/TPI2014 |          |                          | Weight: 70 lb | FT = 20% |

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

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

**REACTIONS.** All bearings 12-6-0.  
 (lb) - Max Horz 2=-117(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 12, 11 except 13=-103(LC 14), 10=-104(LC 15)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 11, 10

**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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-3-0, Exterior(2) 2-3-0 to 6-3-0, Corner(3) 6-3-0 to 9-3-0, Exterior(2) 9-3-0 to 13-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) 12, 11 except (jt=lb) 13=103, 10=104.



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|               |             |                      |          |          |                |           |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>D1 | Truss Type<br>Common | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910257 |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|

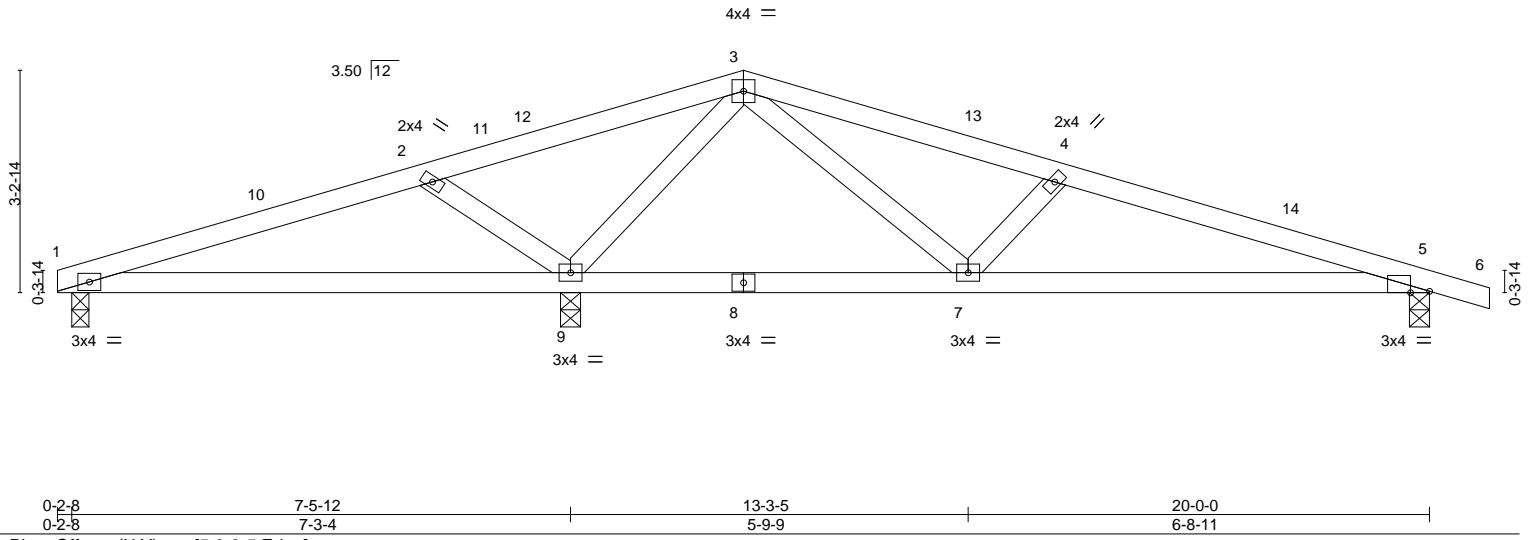
84 Components (Dunn), Dunn, NC - 28334,

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Scale = 1:33.6



|                                      |                      |                 |                             |
|--------------------------------------|----------------------|-----------------|-----------------------------|
| 0-2-8<br>0-2-8                       | 7-5-12<br>7-3-4      | 13-3-5<br>5-9-9 | 20-0-0<br>6-8-11            |
| Plate Offsets (X,Y)-- [5:0-3-5,Edge] |                      |                 |                             |
| <b>LOADING</b> (psf)                 | <b>SPACING-</b>      | <b>CSI.</b>     | <b>DEFL.</b>                |
| TCLL (roof) 20.0                     | 2-0-0                | TC 0.47         | in (loc) l/defl L/d         |
| Snow (Pf/Pg) 15.4/20.0               | Plate Grip DOL 1.15  | BC 0.44         | Vert(LL) -0.08 1-9 >999 240 |
| TCDL 10.0                            | Lumber DOL 1.15      | WB 0.28         | Vert(CT) -0.17 1-9 >532 180 |
| BCLL 0.0 *                           | Rep Stress Incr YES  | Matrix-S        | Horz(CT) 0.01 5 n/a n/a     |
| BCDL 10.0                            | Code IRC2015/TPI2014 |                 |                             |
|                                      |                      |                 | <b>PLATES</b> MT20          |
|                                      |                      |                 | <b>GRIP</b> 244/190         |
|                                      |                      |                 | Weight: 81 lb FT = 20%      |

|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x4 SP No.2 | BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.             |
| WEBS 2x4 SP No.3      |   |

**REACTIONS.** (lb/size) 9=918/0-3-8, 5=409/0-3-8, 1=121/0-3-0  
 Max Horz 1=-57(LC 21)  
 Max Uplift 9=-122(LC 12), 5=-117(LC 13), 1=-35(LC 16)  
 Max Grav 9=1038(LC 2), 5=474(LC 35), 1=186(LC 34)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-44/284, 2-3=-69/550, 3-4=-565/123, 4-5=-801/178  
 BOT CHORD 1-9=-252/82, 5-7=-125/729  
 WEBS 2-9=-440/205, 3-9=-826/159, 3-7=-84/588, 4-7=-353/171

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-8 to 3-1-8, Interior(1) 3-1-8 to 10-0-0, Exterior(2) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 5. This connection is for uplift only and does not consider lateral forces.



April 30, 2019

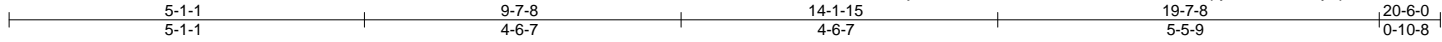
|   |   |
|---|---|
| <p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p> | <p>ENGINEERING BY<br/> <b>TRENCO</b><br/> <small>A MiTek Affiliate</small></p> <p>818 Soundside Road<br/>       Edenton, NC 27932</p> |
|---|---|

|               |             |                      |          |          |                |           |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>D2 | Truss Type<br>COMMON | Qty<br>3 | Ply<br>1 | 240.3174.A CVP | 136910258 |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|

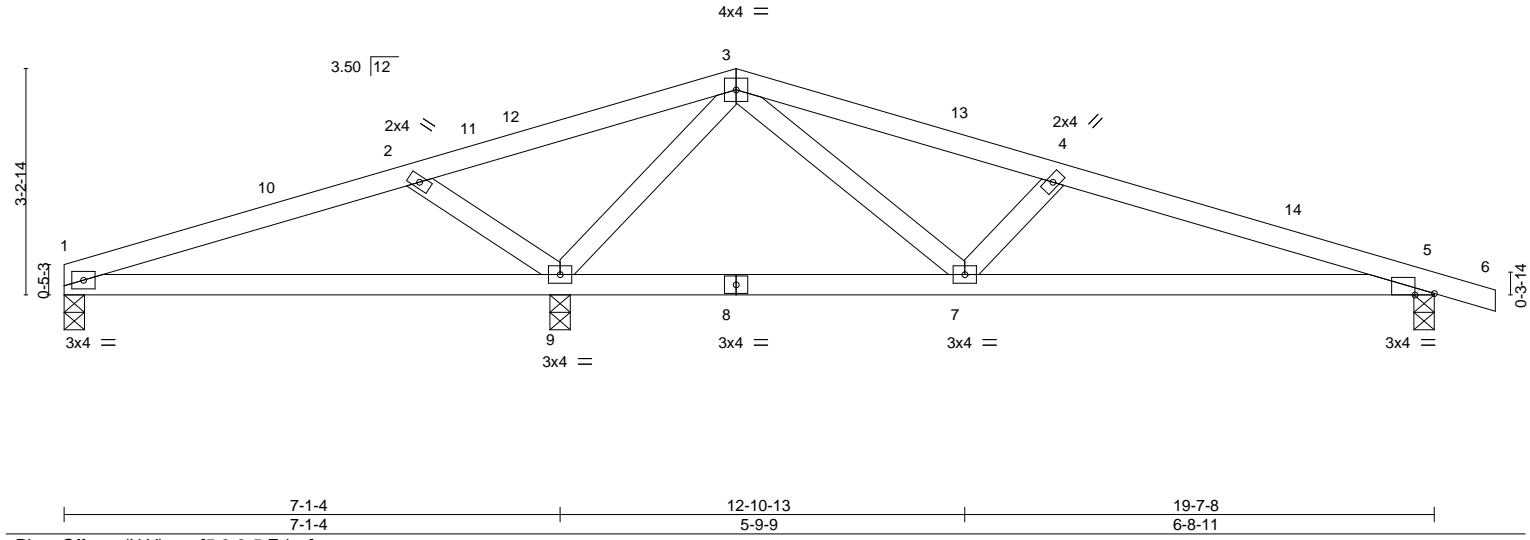
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:39 2019 Page 1

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Scale = 1:33.0



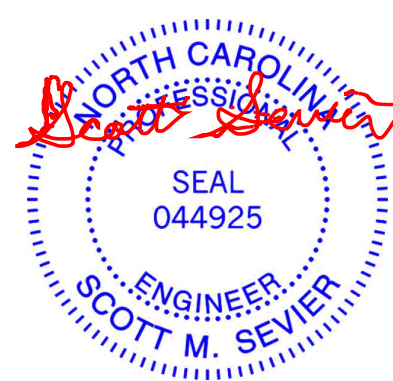
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|---------------|-----------|----------------------|-------|----------|------|----------|-------|--------|------|---------------|---------|----------|--|
| LOADING (psf) |           | SPACING-             |       | CSI.     |      | DEFL.    |       |        |      | PLATES        |         | GRIP     |  |
| TCLL (roof)   | 20.0      | Plate Grip DOL       | 2-0-0 | TC       | 0.44 | in       | (loc) | l/defl | L/d  | MT20          | 244/190 |          |  |
| Snow (Pf/Pg)  | 15.4/20.0 | Lumber DOL           | 1.15  | BC       | 0.44 | Vert(LL) | -0.06 | 1-9    | >999 |               |         |          |  |
| TCDL          | 10.0      | Rep Stress Incr      | YES   | WB       | 0.28 | Vert(CT) | -0.13 | 1-9    | >640 |               |         |          |  |
| BCLL          | 0.0 *     | Code IRC2015/TPI2014 |       | Matrix-S |      | Horz(CT) | 0.01  | 5      | n/a  |               |         |          |  |
| BCDL          | 10.0      |                      |       |          |      |          |       |        |      | Weight: 79 lb |         | FT = 20% |  |

|                |             |                 |   |
|----------------|-------------|-----------------|---|
| <b>LUMBER-</b> |             | <b>BRACING-</b> |   |
| TOP CHORD      | 2x4 SP No.2 | TOP CHORD       | Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD      | 2x4 SP No.2 | BOT CHORD       | Rigid ceiling directly applied or 6-0-0 oc bracing.             |
| WEBS           | 2x4 SP No.3 |                 |   |

**REACTIONS.** (lb/size) 1=101/0-3-8, 9=909/0-3-8, 5=411/0-3-8  
 Max Horz 1=-57(LC 17)  
 Max Uplift 1=-33(LC 16), 9=-118(LC 12), 5=-117(LC 13)  
 Max Grav 1=169(LC 34), 9=1028(LC 2), 5=473(LC 35)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-34/296, 2-3=-64/552, 3-4=-563/122, 4-5=-799/176  
 BOT CHORD 1-9=-262/84, 5-7=-123/727  
 WEBS 2-9=-424/196, 3-9=-832/156, 3-7=-83/591, 4-7=-352/171

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-7-8, Exterior(2) 9-7-8 to 12-7-8, Interior(1) 12-7-8 to 20-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 5. This connection is for uplift only and does not consider lateral forces.

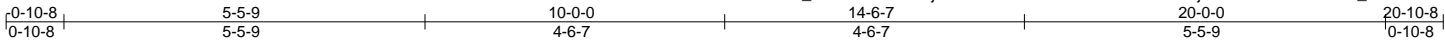


|               |             |                                    |          |          |                |           |
|---------------|-------------|------------------------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>DE | Truss Type<br>COMMON STRUCTURAL GA | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910259 |
|---------------|-------------|------------------------------------|----------|----------|----------------|-----------|

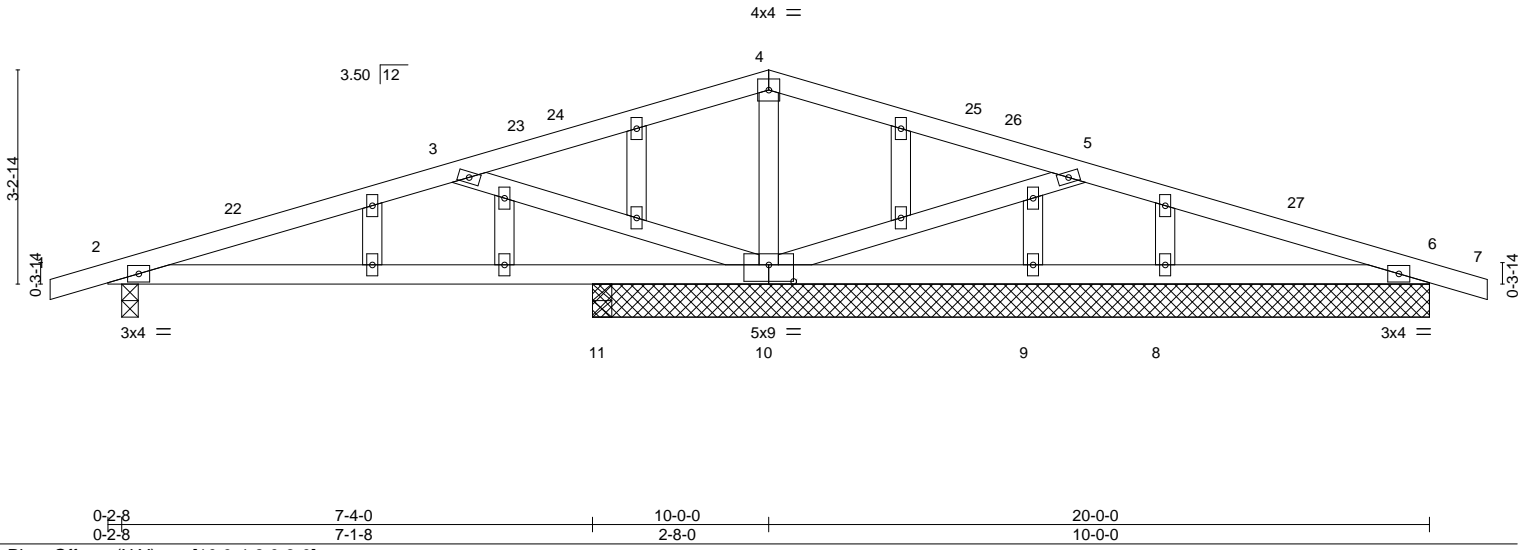
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:40 2019 Page 1

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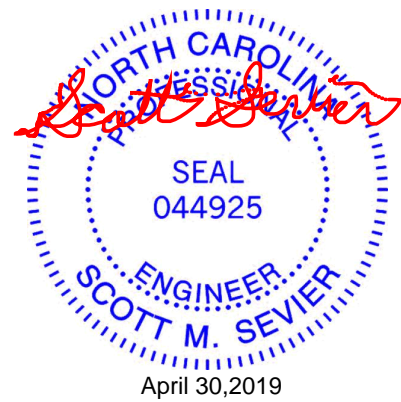
|                      |           |                      |       |             |      |              |          |        |      |               |             |
|----------------------|-----------|----------------------|-------|-------------|------|--------------|----------|--------|------|---------------|-------------|
| <b>LOADING</b> (psf) |           | <b>SPACING-</b>      | 2-0-0 | <b>CSI.</b> |      | <b>DEFL.</b> | in (loc) | l/defl | L/d  | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof)          | 20.0      | Plate Grip DOL       | 1.15  | TC          | 0.46 | Vert(LL)     | 0.13     | 2-11   | >670 | MT20          | 244/190     |
| Snow (Pf/Pg)         | 15.4/20.0 | Lumber DOL           | 1.15  | BC          | 0.43 | Vert(CT)     | -0.16    | 2-11   | >559 |               |             |
| TCDL                 | 10.0      | Rep Stress Incr      | YES   | WB          | 0.28 | Horz(CT)     | 0.01     | 6      | n/a  |               |             |
| BCDL                 | 0.0 *     | Code IRC2015/TPI2014 |       | Matrix-S    |      |              |          |        |      |               |             |
| BCDL                 | 10.0      |                      |       |             |      |              |          |        |      | Weight: 92 lb | FT = 20%    |

|                |             |                 |   |
|----------------|-------------|-----------------|---|
| <b>LUMBER-</b> |             | <b>BRACING-</b> |   |
| TOP CHORD      | 2x4 SP No.2 | TOP CHORD       | Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD      | 2x4 SP No.2 | BOT CHORD       | Rigid ceiling directly applied or 6-0-0 oc bracing.             |
| WEBS           | 2x4 SP No.3 |                 |   |
| OTHERS         | 2x4 SP No.3 |                 |   |

**REACTIONS.** All bearings 12-8-0 except (jt=length) 2=0-3-0, 11=0-3-8.  
 (lb) - Max Horz 2=53(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) 11 except 10=228(LC 16), 6=105(LC 13), 2=148(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 9, 8 except 10=849(LC 2), 6=297(LC 35), 2=339(LC 34), 11=282(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-345/118, 3-4=-120/435, 4-5=-116/436, 5-6=-341/150  
 BOT CHORD 2-11=-121/304, 10-11=-121/304, 9-10=-99/289, 8-9=-99/289, 6-8=-99/289  
 WEBS 4-10=-472/156, 5-10=-580/284, 3-10=-588/289

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) TCCL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 5) Unbalanced snow loads have been considered for this design.
  - 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - 7) All plates are 2x4 MT20 unless otherwise indicated.
  - 8) Gable studs spaced at 2-0-0 oc.
  - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 10=228, 6=105, 2=148.



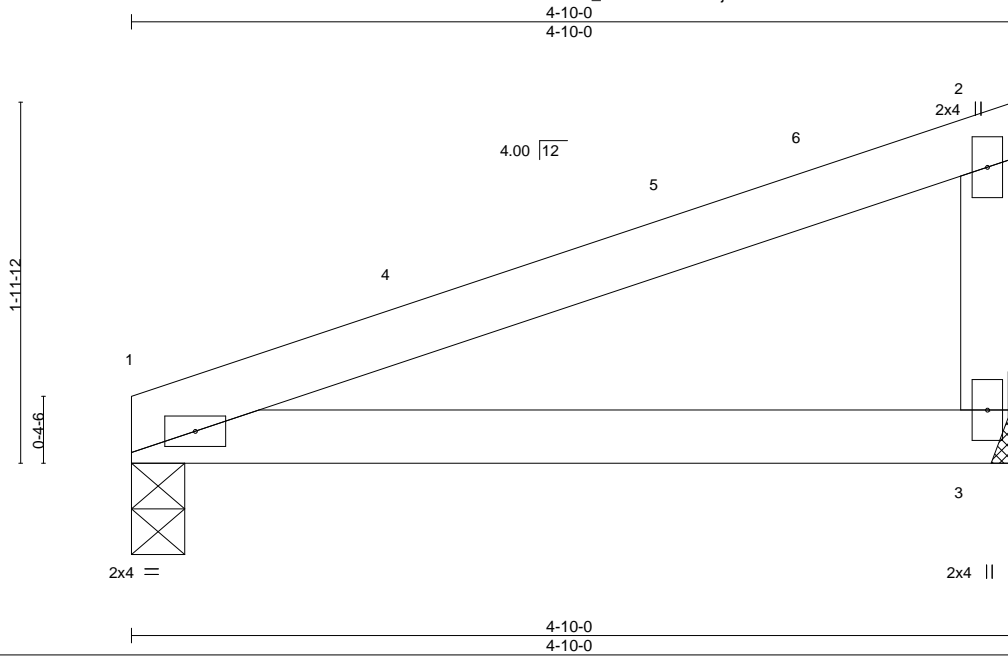


|               |            |                         |          |          |                |           |
|---------------|------------|-------------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>M | Truss Type<br>MONOPITCH | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910260 |
|---------------|------------|-------------------------|----------|----------|----------------|-----------|

84 Components (Dunn), Dunn, NC - 28334,

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ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-CB59oXWOU5TbDZnmHGQH2ggaW9x\_DOTf57kHhPzLr30



Scale = 1:12.6

|                        |                      |             |                             |               |             |
|------------------------|----------------------|-------------|-----------------------------|---------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>                | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.40     | in (loc) l/defl L/d         | MT20          | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.25     | Vert(LL) -0.03 1-3 >999 240 |               |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.00     | Vert(CT) -0.05 1-3 >999 180 |               |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-P    | Horz(CT) 0.00 n/a n/a       |               |             |
| BCDL 10.0              | Code IRC2015/TPI2014 |             |                             | Weight: 17 lb | FT = 20%    |

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

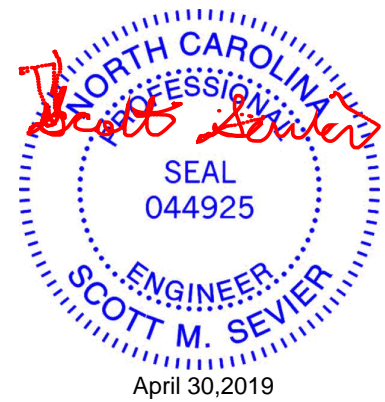
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-10-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=161/0-3-8, 3=161/Mechanical  
 Max Horz 1=63(LC 12)  
 Max Uplift 1=-22(LC 12), 3=-45(LC 12)  
 Max Grav 1=182(LC 2), 3=182(LC 2)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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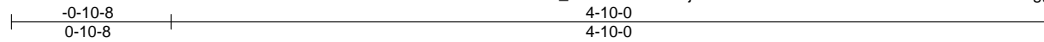
818 Soundside Road  
 Edenton, NC 27932

|               |             |                         |          |          |                |           |
|---------------|-------------|-------------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>M1 | Truss Type<br>MONOPITCH | Qty<br>3 | Ply<br>1 | 240.3174.A CVP | 136910261 |
|---------------|-------------|-------------------------|----------|----------|----------------|-----------|

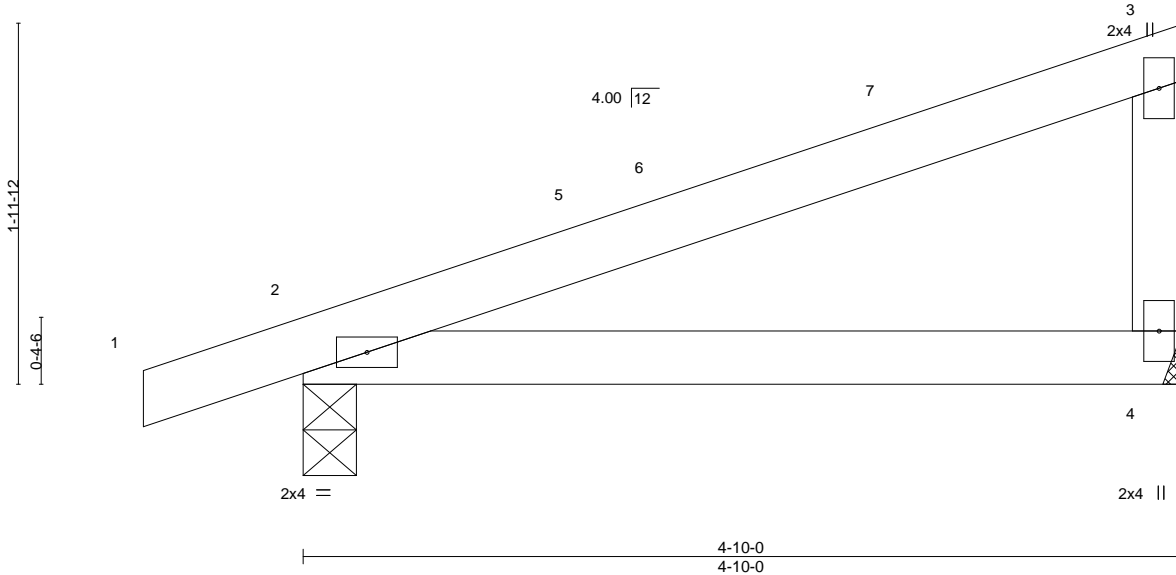
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:41 2019 Page 1

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Scale = 1:12.6



|                        |                      |             |                             |               |             |
|------------------------|----------------------|-------------|-----------------------------|---------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>                | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.36     | in (loc) l/defl L/d         | MT20          | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.25     | Vert(LL) -0.03 2-4 >999 240 |               |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.00     | Vert(CT) -0.05 2-4 >999 180 |               |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-P    | Horz(CT) 0.00 n/a n/a       |               |             |
| BCDL 10.0              | Code IRC2015/TPI2014 |             |                             | Weight: 18 lb | FT = 20%    |

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

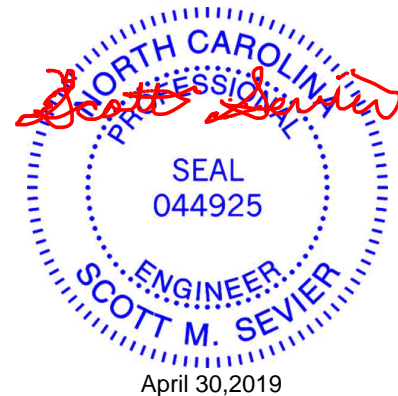
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-10-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 4=155/Mechanical, 2=218/0-3-8  
 Max Horz 2=75(LC 12)  
 Max Uplift 4=-42(LC 16), 2=-67(LC 12)  
 Max Grav 4=175(LC 2), 2=250(LC 2)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.



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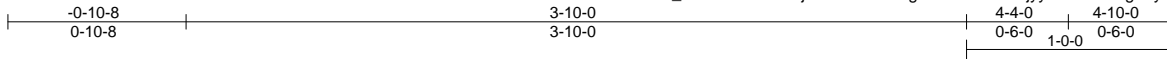


818 Soundside Road  
 Edenton, NC 27932

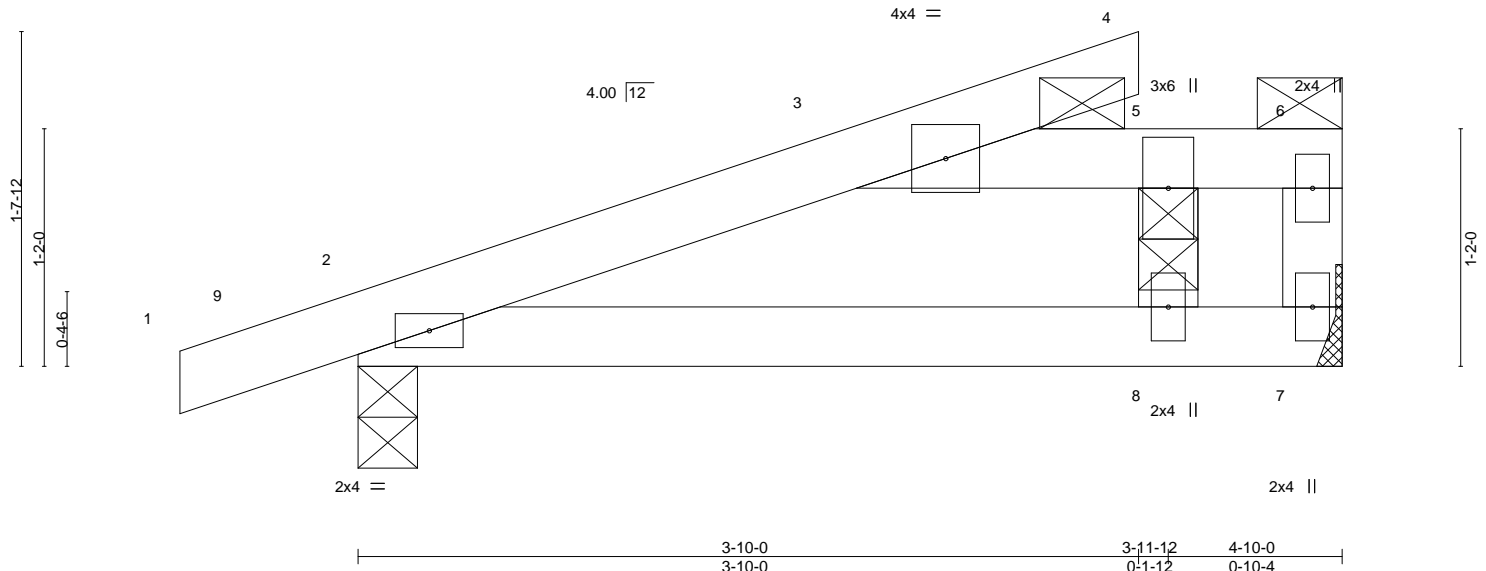
|               |             |                        |          |          |                |           |
|---------------|-------------|------------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>M2 | Truss Type<br>HALF HIP | Qty<br>6 | Ply<br>1 | 240.3174.A CVP | 136910262 |
|---------------|-------------|------------------------|----------|----------|----------------|-----------|

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:42 2019 Page 1  
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Scale = 1:11.3



|                        |                      |             |                             |               |             |
|------------------------|----------------------|-------------|-----------------------------|---------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>                | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.37     | in (loc) l/defl L/d         | MT20          | 244/190     |
| Snow (Pf/Pg) 20.4/20.0 | Plate Grip DOL 1.15  | BC 0.16     | Vert(LL) -0.01 2-8 >999 240 |               |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.00     | Vert(CT) -0.01 2-8 >999 180 |               |             |
| BCLL 0.0 *             | Rep Stress Incr NO   | Matrix-R    | Horz(CT) 0.01 5 n/a n/a     |               |             |
| BCDL 10.0              | Code IRC2015/TP12014 |             |                             | Weight: 20 lb | FT = 20%    |

|                       |  |
|-----------------------|--|
| <b>LUMBER-</b>        | <b>BRACING-</b>  |
| TOP CHORD 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 4-10-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 5-8, 3-6. |
| BOT CHORD 2x4 SP No.2 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.   |
| WEBS 2x4 SP No.3      |  |

**REACTIONS.** (lb/size) 7=32/Mechanical, 2=210/0-3-8, 5=426/0-3-8  
 Max Horz 2=61(LC 12)  
 Max Uplift 7=-36(LC 12), 2=-79(LC 12), 5=-55(LC 13)  
 Max Grav 7=50(LC 3), 2=317(LC 36), 5=468(LC 36)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-292/166

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-5-2, Interior(1) 2-5-2 to 3-10-0, Exterior(2) 2-5-2 to 4-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2, 5.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-51, 3-4=-51, 3-5=-51, 5-6=-83(F=-22), 2-7=-20



April 30, 2019

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
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|               |             |                        |          |          |  |           |
|---------------|-------------|------------------------|----------|----------|--|-----------|
| Job<br>20583A | Truss<br>M2 | Truss Type<br>HALF HIP | Qty<br>6 | Ply<br>1 | 240.3174.A CVP<br><br>Job Reference (optional) | I36910262 |
|---------------|-------------|------------------------|----------|----------|--|-----------|

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:42 2019 Page 2  
ID:B\_Q7f7Biu7XlherXjarx6dzmHHA-gNfY?fW0fPbSrjyryzWatDmgZlfyr7OKnTrDszLr3?

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 5=-200

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|               |              |                                  |          |          |                |           |
|---------------|--------------|----------------------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>M2E | Truss Type<br>HALF HIP SUPPORTED | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910263 |
|---------------|--------------|----------------------------------|----------|----------|----------------|-----------|

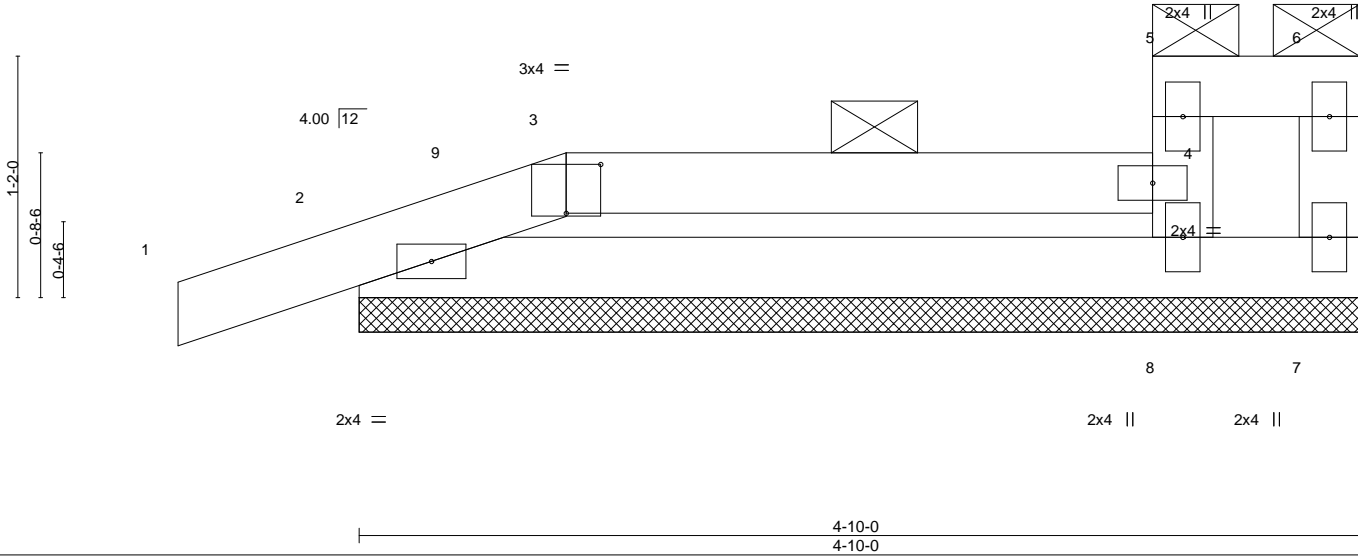
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:43 2019 Page 1

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Scale = 1:11.1



|                        |                      |             |                         |               |             |
|------------------------|----------------------|-------------|-------------------------|---------------|-------------|
| Plate Offsets (X,Y)--  | [3:0-2-0,0-2-13]     |             |                         |               |             |
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.32     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf/Pg) 20.4/20.0 | Plate Grip DOL 1.15  | BC 0.16     | Vert(LL) 0.00 1 n/r 120 |               |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.05     | Vert(CT) 0.01 1 n/r 120 |               |             |
| BCLL 0.0 *             | Rep Stress Incr NO   | Matrix-S    | Horz(CT) 0.00 7 n/a n/a |               |             |
| BCDL 10.0              | Code IRC2015/TPI2014 |             |                         | Weight: 18 lb | FT = 20%    |

|   |   |
|---|---|
| <b>LUMBER-</b>  | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.2   | TOP CHORD Structural wood sheathing directly applied or 4-10-0 oc purlins, except |
| BOT CHORD 2x4 SP No.2   | 2-0-0 oc purlins: 3-4, 5-6.   |
| WEBS 2x4 SP No.3  | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.                    |
| <b>REACTIONS.</b> (lb/size) 2=189/4-10-0, 7=28/4-10-0, 8=338/4-10-0 |   |
| Max Horz 2=27(LC 12)  |   |
| Max Uplift 2=-70(LC 12), 7=-38(LC 13), 8=-27(LC 12)                 |   |
| Max Grav 2=234(LC 40), 7=46(LC 58), 8=372(LC 39)                    |   |

**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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-10-8 to 1-0-0, Exterior(2) 1-0-0 to 4-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- TC LL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) 2, 7, 8.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-3=-51, 3-4=-61, 2-7=-20, 5-6=-261(F=-200)



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|               |             |                      |          |          |                |           |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>P1 | Truss Type<br>COMMON | Qty<br>4 | Ply<br>1 | 240.3174.A CVP | 136910264 |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|

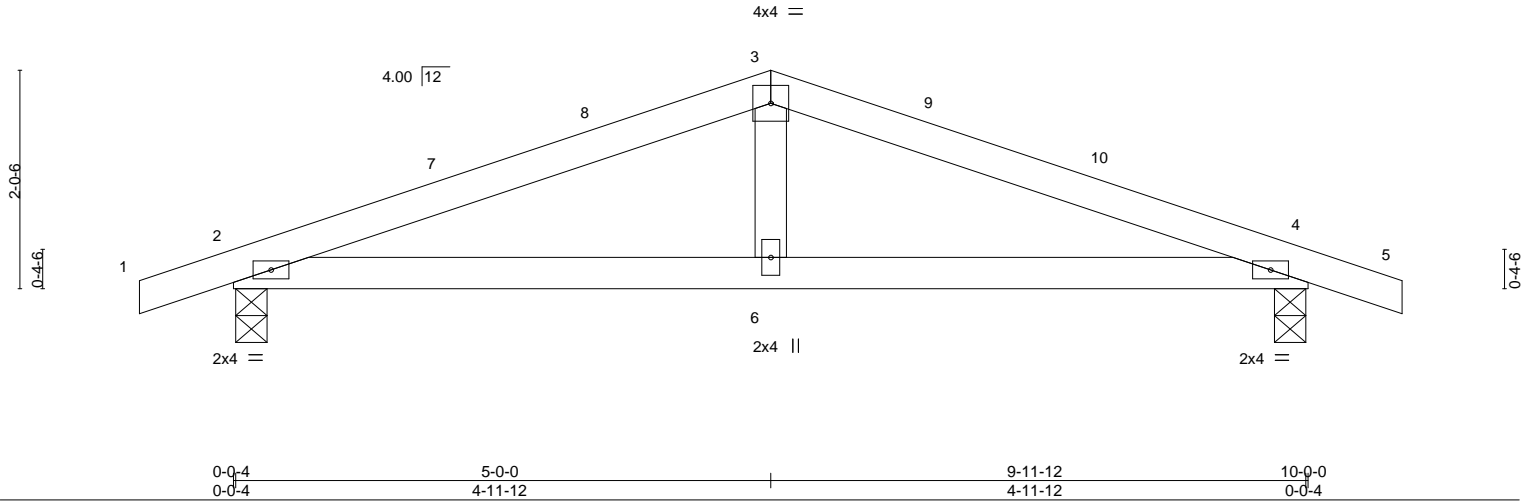
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:44 2019 Page 1

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Scale = 1:21.4



|                        |                      |             |                             |               |             |
|------------------------|----------------------|-------------|-----------------------------|---------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>                | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.39     | in (loc) l/defl L/d         | MT20          | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.58     | Vert(LL) 0.04 4-6 >999 240  |               |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.09     | Vert(CT) -0.04 2-6 >999 180 |               |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S    | Horz(CT) 0.01 4 n/a n/a     |               |             |
| BCDL 10.0              | Code IRC2015/TPI2014 |             |                             | Weight: 36 lb | FT = 20%    |

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

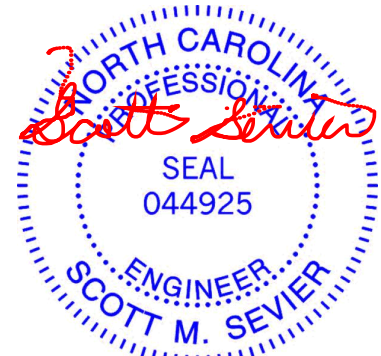
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 8-2-4 oc bracing.

**REACTIONS.** (lb/size) 2=396/0-3-8, 4=396/0-3-8  
 Max Horz 2=33(LC 20)  
 Max Uplift 2=-186(LC 12), 4=-186(LC 13)  
 Max Grav 2=450(LC 2), 4=450(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-687/582, 3-4=-687/579  
 BOT CHORD 2-6=-490/602, 4-6=-490/602

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-0-0, Exterior(2) 5-0-0 to 8-0-0, Interior(1) 8-0-0 to 10-10-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) except (jt=lb) 2=186.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.



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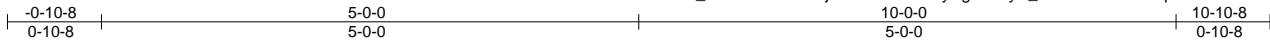
818 Soundside Road  
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|               |             |                                    |          |          |                |           |
|---------------|-------------|------------------------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>PE | Truss Type<br>COMMON SUPPORTED GAB | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910265 |
|---------------|-------------|------------------------------------|----------|----------|----------------|-----------|

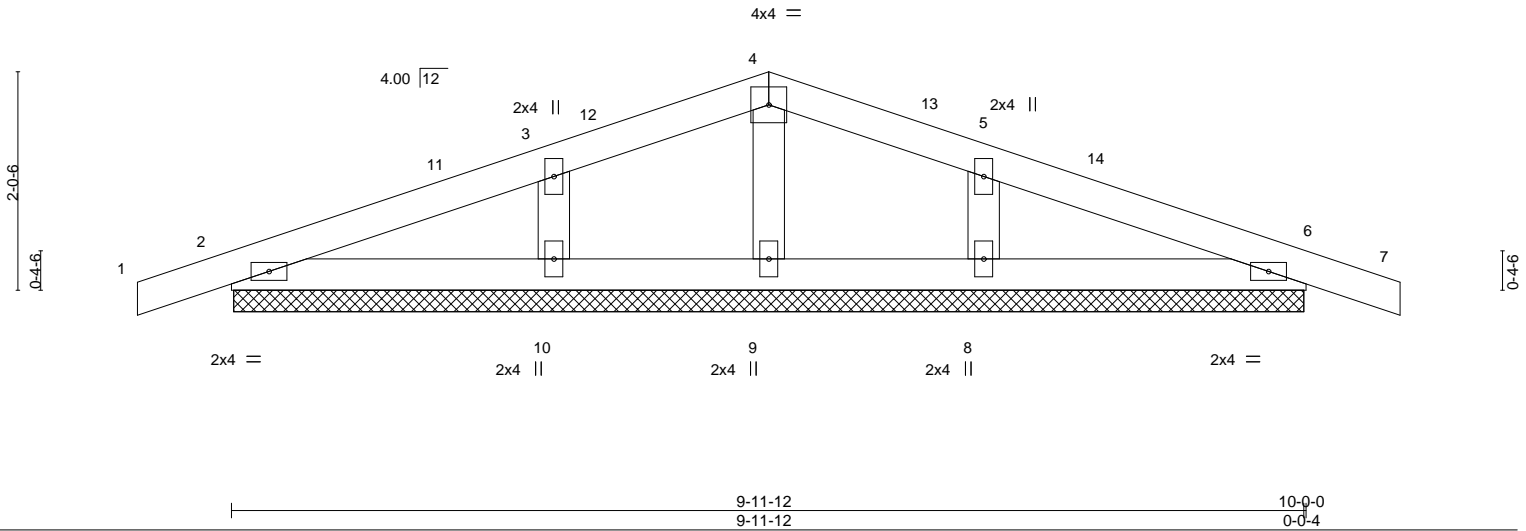
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:45 2019 Page 1

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Scale = 1:21.4



|                      |           |                      |                |             |      |              |          |               |     |               |          |
|----------------------|-----------|----------------------|----------------|-------------|------|--------------|----------|---------------|-----|---------------|----------|
| <b>LOADING</b> (psf) |           | <b>SPACING-</b>      |                | <b>CSI.</b> |      | <b>DEFL.</b> |          | <b>PLATES</b> |     | <b>GRIP</b>   |          |
| TCLL (roof)          | 20.0      | 2-0-0                | Plate Grip DOL | 1.15        | TC   | 0.10         | in (loc) | l/defl        | L/d | MT20          | 244/190  |
| Snow (Pf/Pg)         | 15.4/20.0 | Lumber DOL           | 1.15           | BC          | 0.06 | Vert(LL)     | 0.00     | 7             | n/r |               |          |
| TCDL                 | 10.0      | Rep Stress Incr      | YES            | WB          | 0.06 | Vert(CT)     | 0.00     | 7             | n/r |               |          |
| BCLL                 | 0.0 *     | Code IRC2015/TP12014 |                | Matrix-S    |      | Horz(CT)     | 0.00     | 6             | n/a |               |          |
| BCDL                 | 10.0      |                      |                |             |      |              |          |               |     | Weight: 38 lb | FT = 20% |

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

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

**REACTIONS.** All bearings 9-11-8.  
(lb) - Max Horz 2=33(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8  
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 5-0-0, Corner(3) 5-0-0 to 8-0-0, Exterior(2) 8-0-0 to 10-10-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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/TP1 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) 2, 6, 10, 8.
- Non Standard bearing condition. Review required.



April 30, 2019

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|        |       |            |     |     |                |           |
|--------|-------|------------|-----|-----|----------------|-----------|
| Job    | Truss | Truss Type | Qty | Ply | 240.3174.A CVP | 136910266 |
| 20583A | T1    | COMMON     | 4   | 1   |                |           |

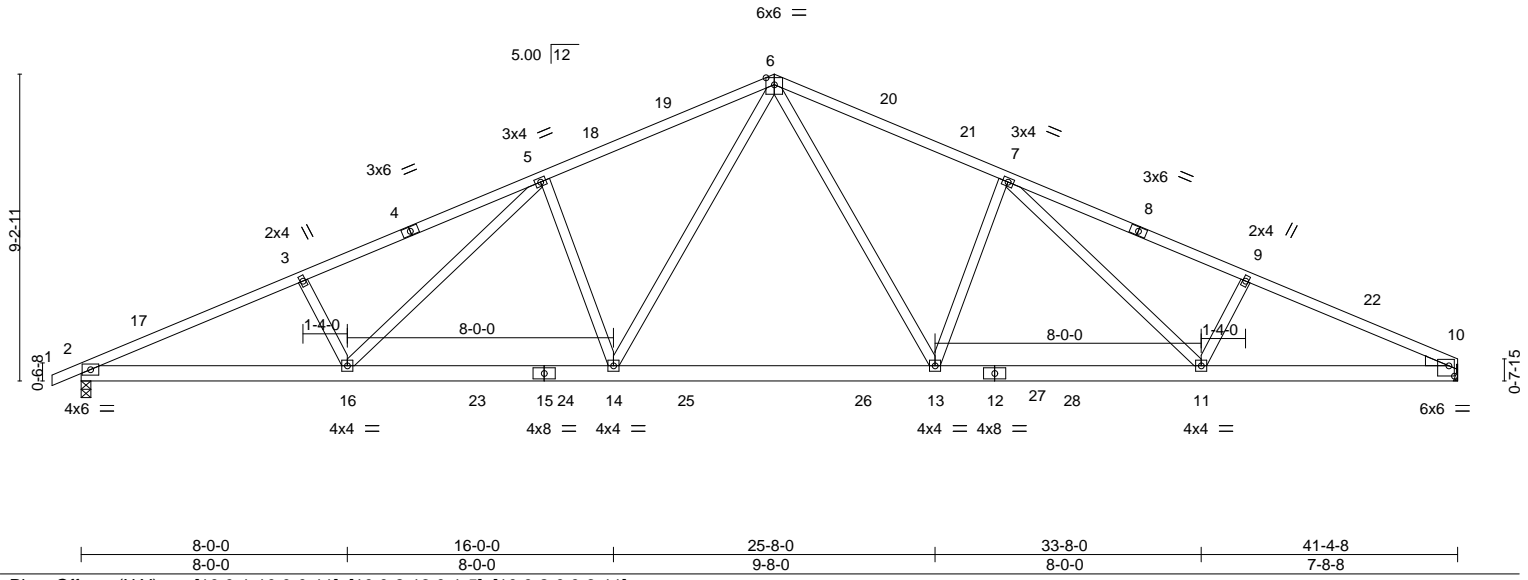
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:46 2019 Page 1

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|         |       |         |         |         |        |        |
|---------|-------|---------|---------|---------|--------|--------|
| -0-10-8 | 6-8-0 | 13-11-5 | 20-10-0 | 27-8-11 | 35-0-0 | 41-4-8 |
| 0-10-8  | 6-8-0 | 7-3-5   | 6-10-11 | 6-10-11 | 7-3-5  | 6-4-8  |

Scale = 1:69.3



|                        |                      |             |                               |                |             |
|------------------------|----------------------|-------------|-------------------------------|----------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>                  | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.80     | in (loc) l/defl L/d           | MT20           | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.82     | Vert(LL) -0.25 13-14 >999 240 |                |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.51     | Vert(CT) -0.49 13-14 >999 180 |                |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S    | Horz(CT) 0.11 10 n/a n/a      |                |             |
| BCDL 10.0              | Code IRC2015/TPI2014 |             |                               | Weight: 245 lb | FT = 20%    |

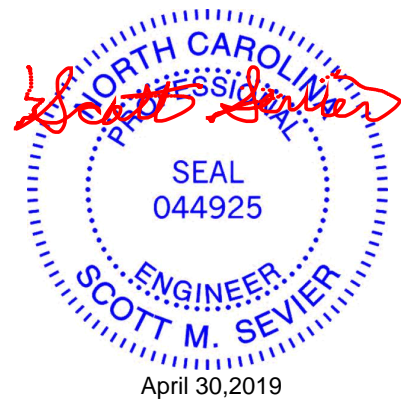
|   |   |
|---|---|
| <b>LUMBER-</b>  | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.1 *Except*<br>1-4,8-10: 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins. |
| BOT CHORD 2x6 SP No.2                                   | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| WEBS 2x4 SP No.3  |   |
| WEDGE   |   |
| Right: 2x4 SP No.3                                      |   |

**REACTIONS.** (lb/size) 2=1510/0-3-8, 10=1457/Mechanical  
 Max Horz 2=154(LC 20)  
 Max Uplift 2=-222(LC 16), 10=-199(LC 17)  
 Max Grav 2=1709(LC 2), 10=1646(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3499/426, 3-5=-3328/451, 5-6=-2703/384, 6-7=-2691/388, 7-9=-3267/445,  
 9-10=-3434/419  
 BOT CHORD 2-16=-468/3124, 14-16=-289/2612, 13-14=-103/1955, 11-13=-167/2595, 10-11=-314/3052  
 WEBS 3-16=-304/203, 5-16=-128/617, 5-14=-670/289, 6-14=-187/995, 6-13=-184/976,  
 7-13=-650/286, 7-11=-124/569, 9-11=-274/204

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 20-10-0, Exterior(2) 20-10-0 to 23-10-0, Interior(1) 23-10-0 to 41-3-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCCL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=222, 10=199.





|                          |       |                      |     |     |                |           |
|--------------------------|-------|----------------------|-----|-----|----------------|-----------|
| Job                      | Truss | Truss Type           | Qty | Ply | 240.3174.A CVP | 136910267 |
| 20583A                   | T1E   | COMMON SUPPORTED GAB | 1   | 1   |                |           |
| Job Reference (optional) |       |                      |     |     |                |           |

84 Components (Dunn), Dunn, NC - 28334,

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ID: B\_Q7f7Biu7XlherXjarx6dzmHhA-VXOpGwbNEFMbZeP6BE2wq8Ssf\_NcMWIHiw9QVzLr2v

-0-10-8 20-10-0 41-4-8  
 0-10-8 20-10-0 20-6-8

Scale = 1:69.8

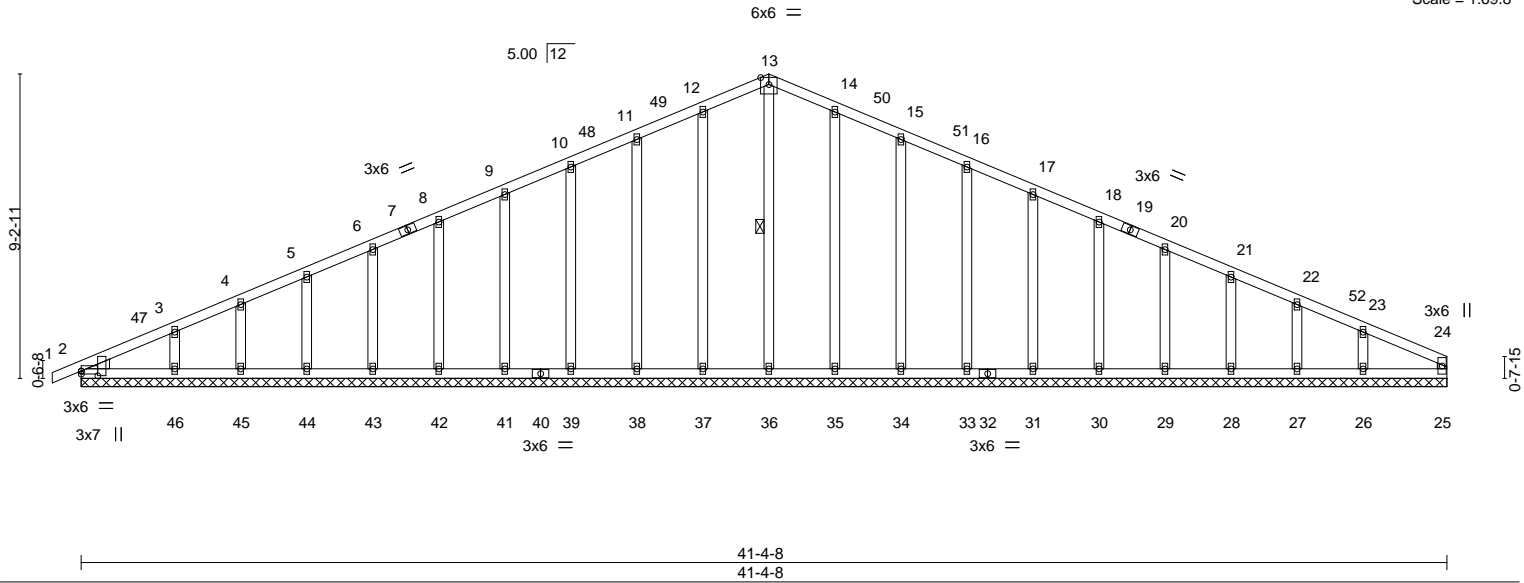


Plate Offsets (X,Y)-- [2:0-0-0,0-1-2], [2:0-1-11,0-6-0]

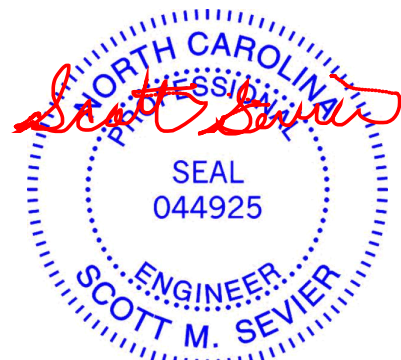
| LOADING (psf)          | SPACING-             | CSI.     | DEFL.                    | PLATES         | GRIP     |
|------------------------|----------------------|----------|--------------------------|----------------|----------|
| TCLL (roof) 20.0       | 2-0-0                | TC 0.08  | in (loc) l/defl L/d      | MT20           | 244/190  |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.06  | Vert(LL) -0.00 1 n/r 120 |                |          |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.21  | Vert(CT) 0.00 1 n/r 120  |                |          |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S | Horz(CT) 0.01 25 n/a n/a |                |          |
| BCDL 10.0              | Code IRC2015/TPI2014 |          |                          | Weight: 265 lb | FT = 20% |

| LUMBER-               | BRACING-  |
|-----------------------|---|
| TOP CHORD 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD 2x4 SP No.2 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.                                  |
| WEBS 2x4 SP No.3      | WEBS 1 Row at midpt 13-36   |
| OTHERS 2x4 SP No.3    |   |
| WEDGE                 |   |
| Left: 2x4 SP No.3     |   |

**REACTIONS.** All bearings 41-4-8.  
 (lb) - Max Horz 2=162(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26  
 Max Grav All reactions 250 lb or less at joint(s) 25, 2, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 11-12=-99/269, 12-13=-112/304, 13-14=-112/308, 14-15=-99/273

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 20-10-0, Corner(3) 20-10-0 to 23-10-0, Exterior(2) 23-10-0 to 41-2-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load); Lumber DOL=1.15 Plate DOL=1.15; Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) 2, 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26.



April 30, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

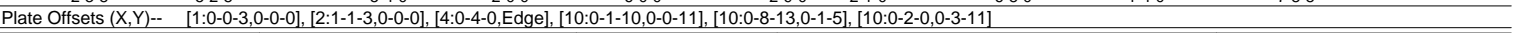
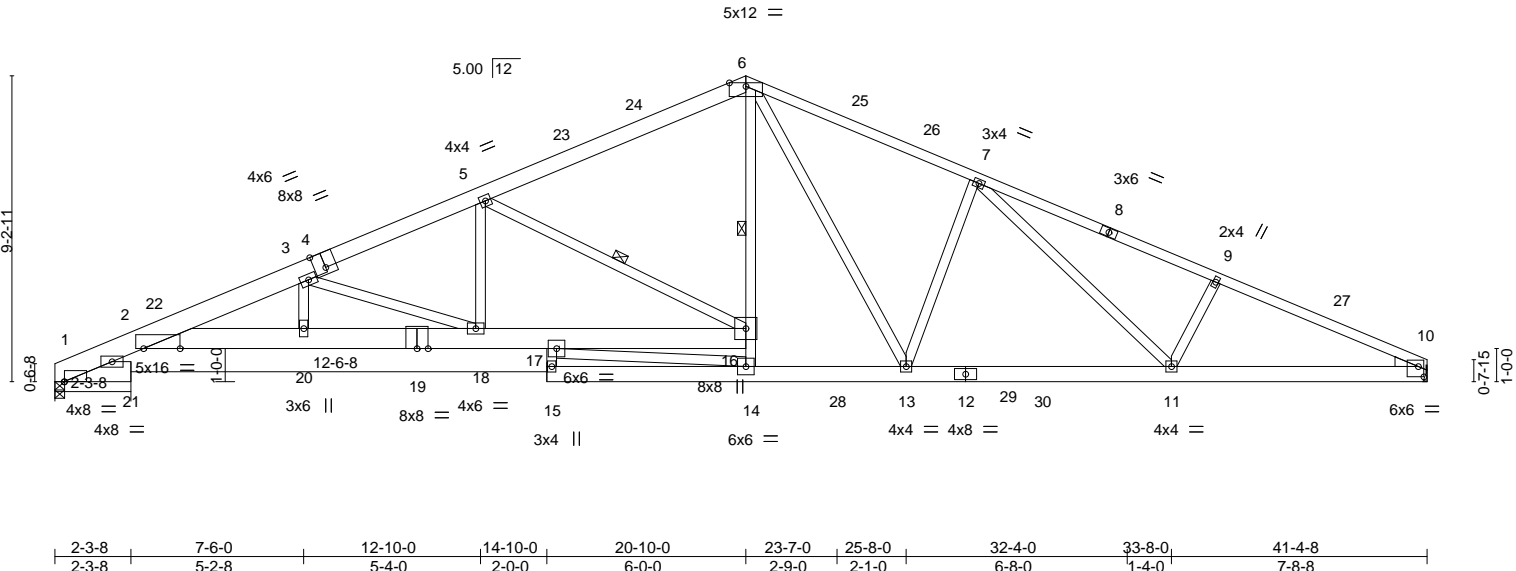
**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

|               |              |                            |          |          |                |           |
|---------------|--------------|----------------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>T1T | Truss Type<br>ROOF SPECIAL | Qty<br>6 | Ply<br>1 | 240.3174.A CVP | 136910268 |
|---------------|--------------|----------------------------|----------|----------|----------------|-----------|

84 Components (Dunn), Dunn, NC - 28334,

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|                        |                      |             |                            |                |             |
|------------------------|----------------------|-------------|----------------------------|----------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>               | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.93     | in (loc) l/defl L/d        | MT20           | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.81     | Vert(LL) -0.30 17 >990 240 |                |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.82     | Vert(CT) -0.61 17 >804 180 |                |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S    | Horz(CT) 0.29 10 n/a n/a   |                |             |
| BCDL 10.0              | Code IRC2015/TPI2014 |             |                            | Weight: 308 lb | FT = 20%    |

**LUMBER-**  
**TOP CHORD** 2x4 SP No.2 \*Except\*  
 4-6: 2x6 SP No.2, 1-4: 2x8 SP DSS  
**BOT CHORD** 2x6 SP No.2 \*Except\*  
 1-21,16-19: 2x8 SP No.2, 2-19: 2x8 SP DSS, 15-17: 2x4 SP No.3  
**WEBS**  
 2x4 SP No.3  
**WEDGE**  
 Right: 2x4 SP No.3

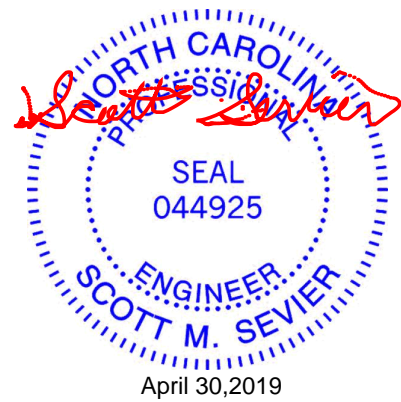
**BRACING-**  
**TOP CHORD** Structural wood sheathing directly applied.  
**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.  
**WEBS** 1 Row at midpt 5-16, 6-14

**REACTIONS.** (lb/size) 1=1441/0-3-8, 10=1447/Mechanical  
 Max Horz 1=-148(LC 17)  
 Max Uplift 1=-203(LC 16), 10=-199(LC 17)  
 Max Grav 1=1629(LC 2), 10=1635(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 1-2=-640/181, 2-3=-4901/609, 3-5=-3682/445, 5-6=-2180/332, 6-7=-2593/391,  
 7-9=-3248/444, 9-10=-3415/417  
**BOT CHORD** 2-20=-641/4621, 18-20=-641/4621, 17-18=-387/3362, 16-17=-297/1458, 14-15=0/282,  
 13-14=-91/1927, 11-13=-172/2527, 10-11=-313/3035  
**WEBS** 3-20=0/330, 3-18=-1348/272, 14-17=-99/1648, 5-16=-1635/337, 6-16=-75/638,  
 7-13=-641/277, 7-11=-116/591, 9-11=-277/205, 5-18=-22/949, 6-13=-211/847

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-0 to 3-5-0, Interior(1) 3-5-0 to 20-10-0, Exterior(2) 20-10-0 to 23-10-0, Interior(1) 23-10-0 to 41-3-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=199.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.



|               |             |                          |          |          |                |           |
|---------------|-------------|--------------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>T2 | Truss Type<br>ROOF TRUSS | Qty<br>5 | Ply<br>1 | 240.3174.A CVP | 136910269 |
|---------------|-------------|--------------------------|----------|----------|----------------|-----------|

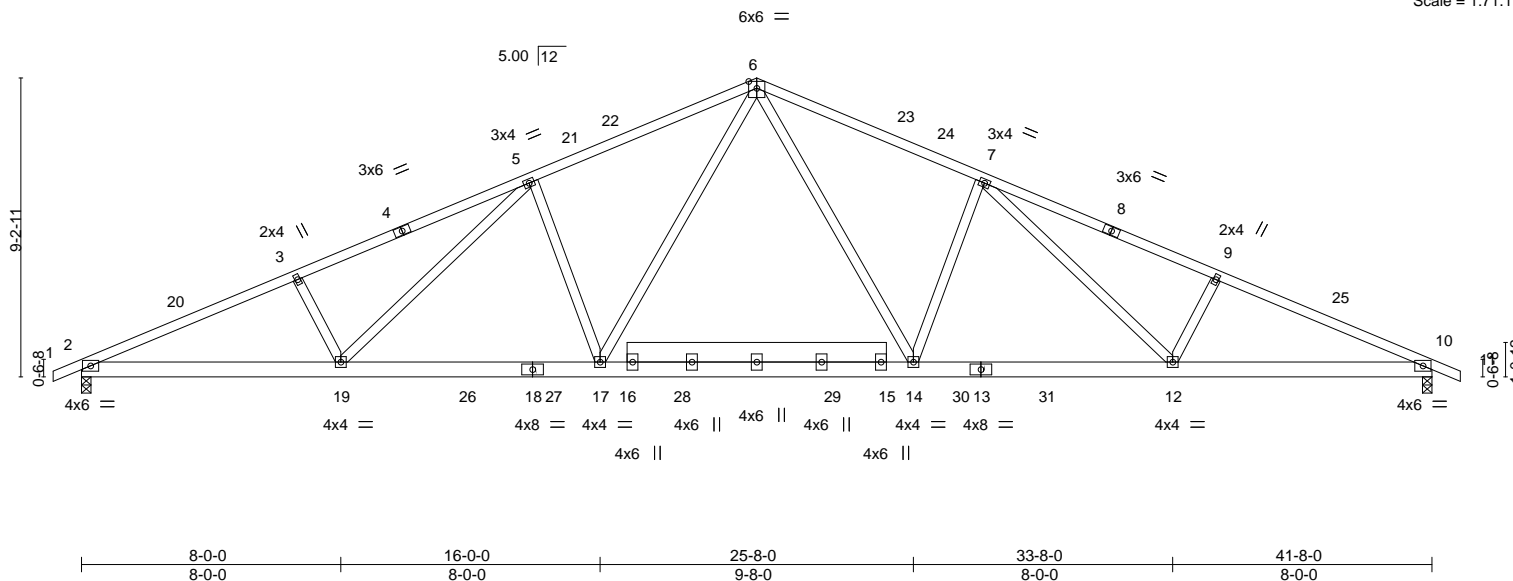
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:52 2019 Page 1

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|         |       |         |         |         |        |        |        |
|---------|-------|---------|---------|---------|--------|--------|--------|
| -0-10-8 | 6-8-0 | 13-11-5 | 20-10-0 | 27-8-11 | 35-0-0 | 41-8-0 | 42-6-8 |
| 0-10-8  | 6-8-0 | 7-3-5   | 6-10-11 | 6-10-11 | 7-3-5  | 6-8-0  | 0-10-8 |

Scale = 1:71.1



|                        |                      |             |                               |                |             |
|------------------------|----------------------|-------------|-------------------------------|----------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>                  | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.80     | in (loc) l/defl L/d           | MT20           | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.73     | Vert(LL) -0.20 17-19 >999 240 |                |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.51     | Vert(CT) -0.41 17-19 >999 180 |                |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S    | Horz(CT) 0.10 10 n/a n/a      |                |             |
| BCDL 10.0              | Code IRC2015/TP12014 |             |                               | Weight: 271 lb | FT = 20%    |

**LUMBER-**  
TOP CHORD 2x4 SP No.1 \*Except\*  
1-4,8-11: 2x4 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\*  
15-16: 2x8 SP No.2  
WEBS 2x4 SP No.3

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

**REACTIONS.** (lb/size) 2=1517/0-3-8, 10=1517/0-3-8  
Max Horz 2=-151(LC 17)  
Max Uplift 2=-223(LC 16), 10=-223(LC 17)  
Max Grav 2=1716(LC 2), 10=1716(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3520/425, 3-5=-3349/450, 5-6=-2681/410, 6-7=-2681/410, 7-9=-3349/451,  
9-10=-3520/425  
BOT CHORD 2-19=-463/3143, 17-19=-289/2596, 14-17=-103/1943, 12-14=-188/2596, 10-12=-313/3143  
WEBS 6-14=-188/977, 7-14=-673/286, 7-12=-123/627, 9-12=-303/204, 6-17=-188/977,  
5-17=-673/286, 5-19=-122/627, 3-19=-303/203

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-3-8, Interior(1) 3-3-8 to 20-10-0, Exterior(2) 20-10-0 to 25-0-0, Interior(1) 25-0-0 to 42-6-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) except (jt=lb) 2=223.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces.
  - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



April 30, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

|               |             |                      |          |          |                |           |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>T3 | Truss Type<br>COMMON | Qty<br>4 | Ply<br>1 | 240.3174.A CVP | 136910270 |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|

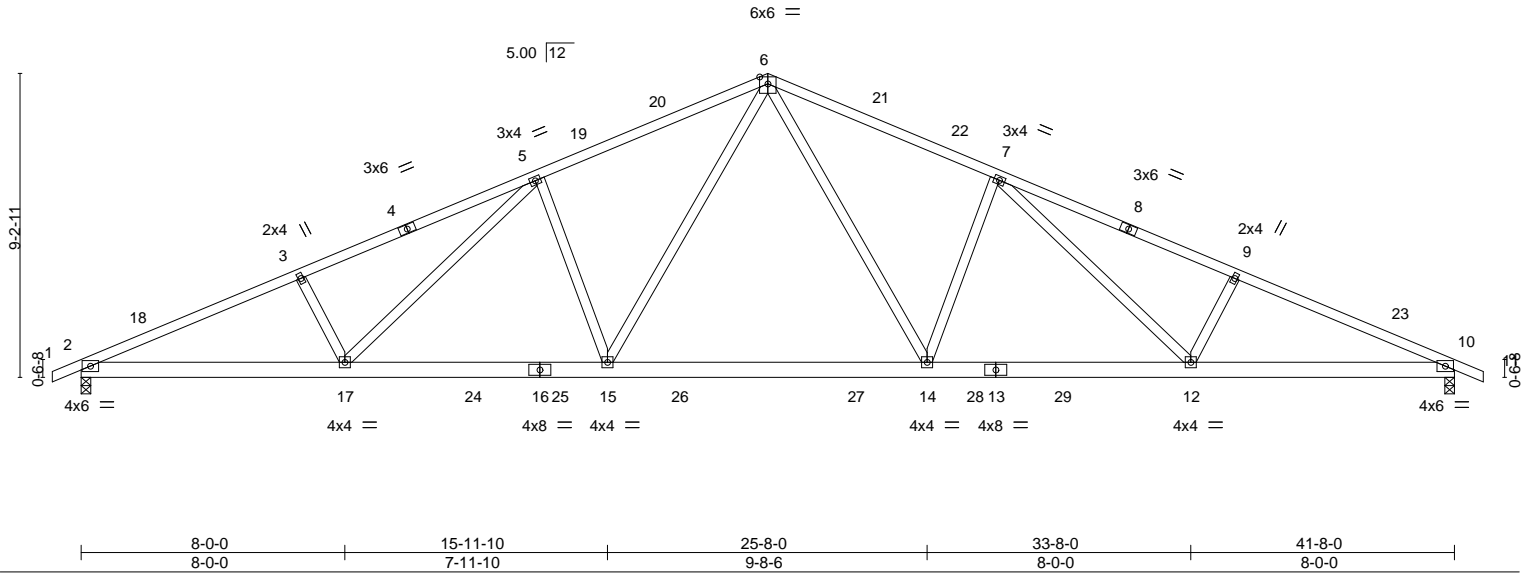
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:53 2019 Page 1

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|         |       |          |         |         |        |        |        |
|---------|-------|----------|---------|---------|--------|--------|--------|
| -0-10-8 | 6-8-0 | 13-10-15 | 20-10-0 | 27-8-11 | 35-0-0 | 41-8-0 | 42-6-8 |
| 0-10-8  | 6-8-0 | 7-2-15   | 6-11-1  | 6-10-11 | 7-3-5  | 6-8-0  | 0-10-8 |

Scale = 1:69.9



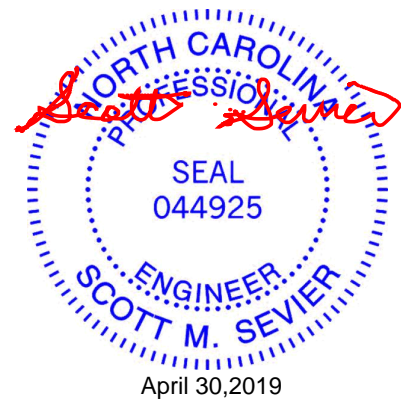
|                        |                      |             |                               |                |             |
|------------------------|----------------------|-------------|-------------------------------|----------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>                  | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.82     | in (loc) l/defl L/d           | MT20           | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.73     | Vert(LL) -0.26 14-15 >999 240 |                |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.51     | Vert(CT) -0.50 14-15 >995 180 |                |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S    | Horz(CT) 0.11 10 n/a n/a      |                |             |
| BCDL 10.0              | Code IRC2015/TP12014 |             |                               | Weight: 247 lb | FT = 20%    |

|   |   |
|---|---|
| <b>LUMBER-</b>  | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.1 *Except*<br>1-4,8-11: 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins. |
| BOT CHORD 2x6 SP No.2                                   | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| WEBS 2x4 SP No.3  |   |

|   |
|---|
| <b>REACTIONS.</b> (lb/size) 2=1517/0-3-8, 10=1517/0-3-8 |
| Max Horz 2=-151(LC 17)                                  |
| Max Uplift 2=-223(LC 16), 10=-223(LC 17)                |
| Max Grav 2=1716(LC 2), 10=1716(LC 2)                    |

|   |
|---|
| <b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.                                 |
| TOP CHORD 2-3=-3516/427, 3-5=-3346/452, 5-6=-2724/385, 6-7=-2722/385, 7-9=-3346/453, 9-10=-3517/427                         |
| BOT CHORD 2-17=-465/3140, 15-17=-287/2632, 14-15=-100/1972, 12-14=-164/2630, 10-12=-314/3140                                |
| WEBS 6-14=-186/996, 7-14=-669/289, 7-12=-129/616, 9-12=-303/203, 6-15=-187/996, 5-15=-669/288, 5-17=-128/613, 3-17=-302/202 |

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 20-10-0, Exterior(2) 20-10-0 to 23-10-0, Interior(1) 23-10-0 to 42-6-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) except (jt=lb) 2=223.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces.



|   |       |                      |     |     |                |                          |
|---|-------|----------------------|-----|-----|----------------|--------------------------|
| Job                                     | Truss | Truss Type           | Qty | Ply | 240.3174.A CVP | 136910271                |
| 20583A                                  | T3E   | COMMON SUPPORTED GAB | 1   | 1   |                |                          |
| 84 Components (Dunn), Dunn, NC - 28334, |       |                      |     |     |                | Job Reference (optional) |

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:55 2019 Page 1  
 ID: B\_Q7f7Biu7XlherXjarx6dzmHhA-otxSkJgAbPEcvjSS5CgacdF2volKVg0JJ171AbzLr2o

-0-10-8 20-10-0 41-8-0 42-6-8  
 0-10-8 20-10-0 20-10-0 0-10-8

Scale = 1:70.8

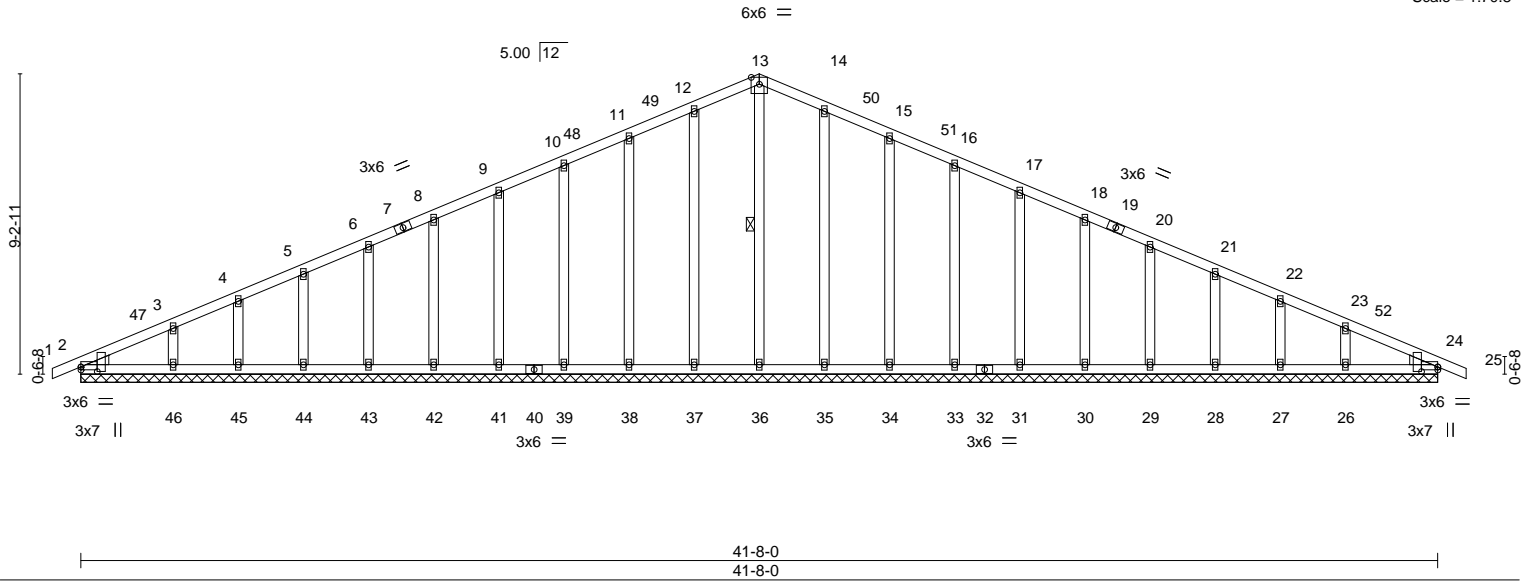


Plate Offsets (X,Y)-- [2:0-0-0,0-1-2], [2:0-1-11,0-6-0], [24:0-0-0,0-1-2], [24:0-1-11,0-6-0]

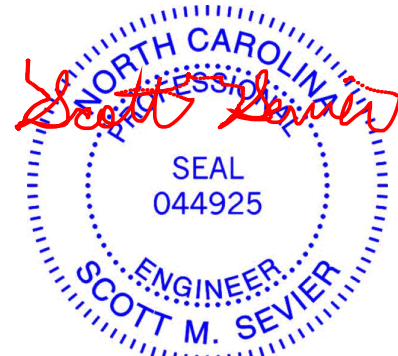
| LOADING (psf)          | SPACING-             | CSI.     | DEFL.                    | PLATES         | GRIP     |
|------------------------|----------------------|----------|--------------------------|----------------|----------|
| TCLL (roof) 20.0       | 2-0-0                | TC 0.08  | in (loc) l/def L/d       | MT20           | 244/190  |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.06  | Vert(LL) 0.00 24 n/r 120 |                |          |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.21  | Vert(CT) 0.00 25 n/r 120 |                |          |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S | Horz(CT) 0.01 24 n/a n/a |                |          |
| BCDL 10.0              | Code IRC2015/TPI2014 |          |                          | Weight: 268 lb | FT = 20% |

| LUMBER-                               | BRACING-  |
|---------------------------------------|---|
| TOP CHORD 2x4 SP No.2                 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x4 SP No.2                 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| OTHERS 2x4 SP No.3                    | WEBS 1 Row at midpt 13-36   |
| WEDGE                                 |   |
| Left: 2x4 SP No.3, Right: 2x4 SP No.3 |   |

**REACTIONS.** All bearings 41-8-0.  
 (lb) - Max Horz 2=-151(LC 17)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26, 24  
 Max Grav All reactions 250 lb or less at joint(s) 2, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26, 24

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 11-12=-91/258, 12-13=-104/293, 13-14=-104/293, 14-15=-91/258

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 20-10-0, Corner(3) 20-10-0 to 23-10-0, Exterior(2) 23-10-0 to 42-6-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) 2, 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26, 24.



April 30, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-743 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

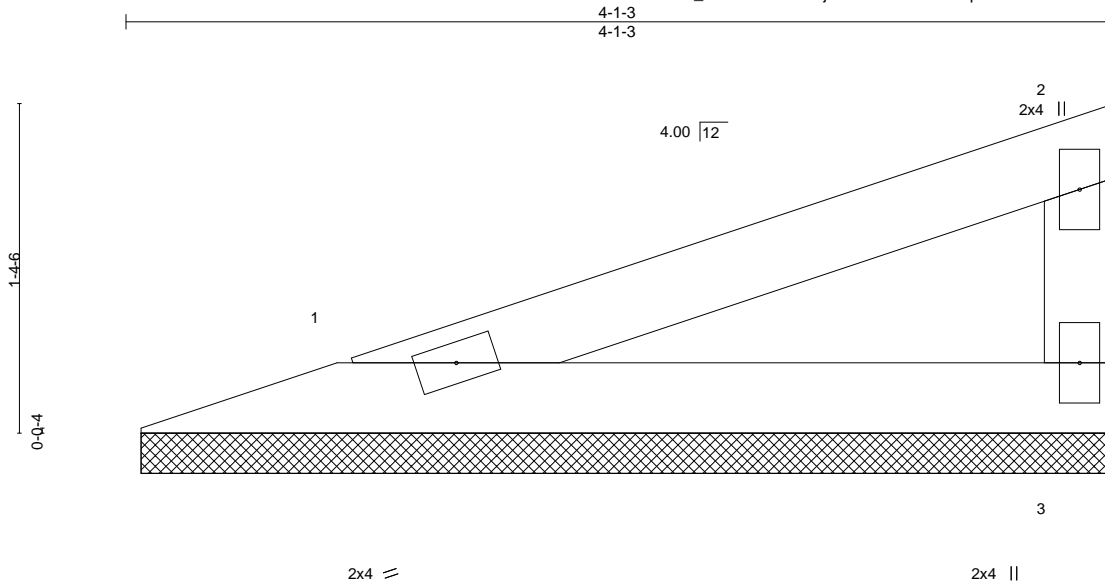


818 Soundside Road  
 Edenton, NC 27932

|        |       |            |     |     |                |           |
|--------|-------|------------|-----|-----|----------------|-----------|
| Job    | Truss | Truss Type | Qty | Ply | 240.3174.A CVP | 136910272 |
| 20583A | V     | VALLEY     | 1   | 1   |                |           |

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:56 2019 Page 1  
ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-G4VqxfoMiMSWt1efvBp9qoCPC4pEAbSYysai2zLr2n



Scale = 1:9.6

| LOADING (psf)          | SPACING-             | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|------------------------|----------------------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL (roof) 20.0       | 2-0-0                | TC 0.16  | Vert(LL) | n/a      | -      | n/a | MT20          | 244/190  |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.10  | Vert(CT) | n/a      | -      | n/a |               |          |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.00  | Horz(CT) | 0.00     | n/a    | n/a |               |          |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-P |          |          |        |     |               |          |
| BCDL 10.0              | Code IRC2015/TP12014 |          |          |          |        |     | Weight: 12 lb | FT = 20% |

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

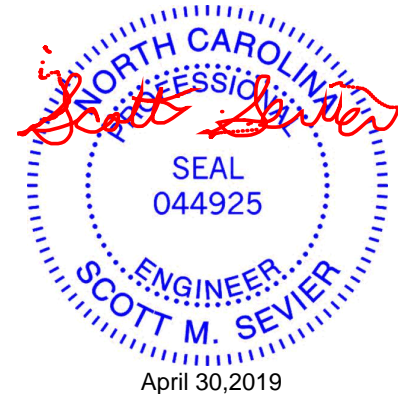
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-1-3 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=107/4-0-7, 3=107/4-0-7  
Max Horz 1=39(LC 12)  
Max Uplift 1=-15(LC 12), 3=-29(LC 12)  
Max Grav 1=120(LC 2), 3=120(LC 2)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



April 30, 2019

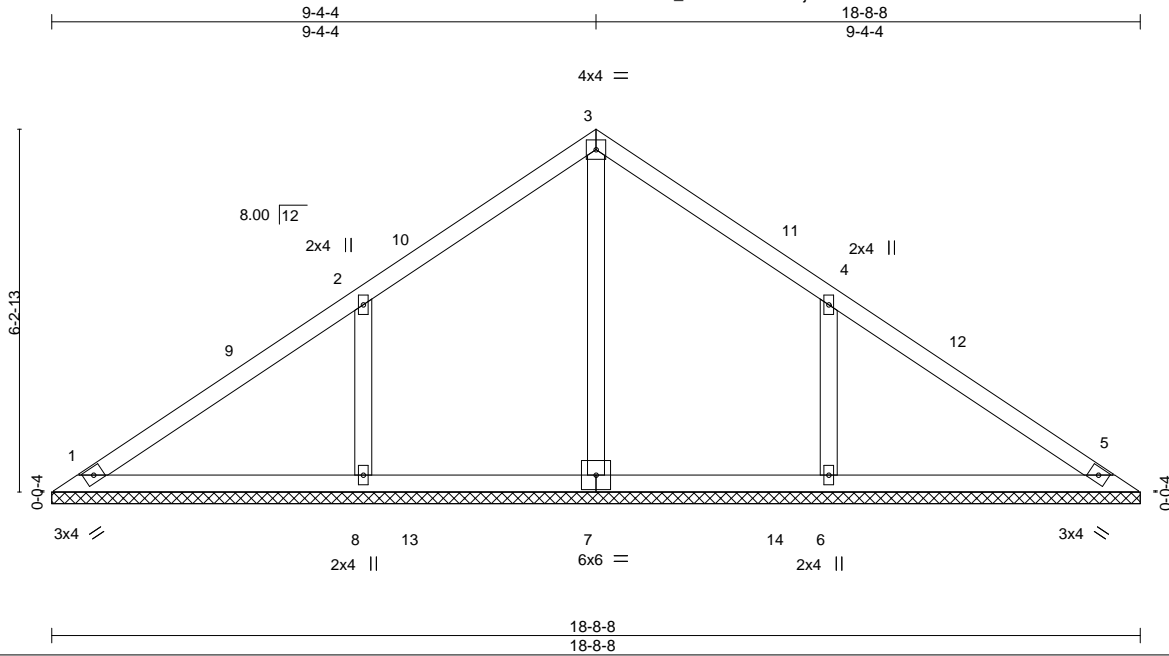
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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

|               |             |                     |          |          |                |           |
|---------------|-------------|---------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>V1 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910273 |
|---------------|-------------|---------------------|----------|----------|----------------|-----------|

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:57 2019 Page 1  
ID:B\_Q7f7Biu7XlherXjarx6dzmHhA-kG3D9?iQ70UJ80brDdi2h2KLrcPizcEcnc7EUzLr2m



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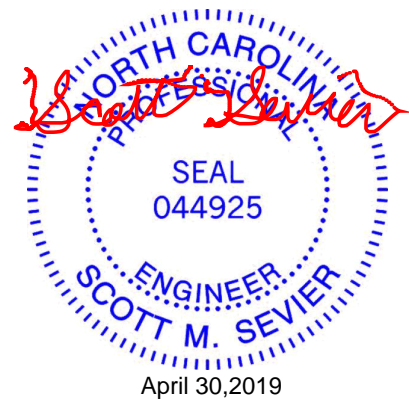
|                        |                      |             |                         |               |             |
|------------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.31     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.19     | Vert(LL) n/a - n/a 999  |               |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.10     | Vert(CT) n/a - n/a 999  |               |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S    | Horz(CT) 0.00 5 n/a n/a |               |             |
| BCDL 10.0              | Code IRC2015/TPI2014 |             |                         | Weight: 77 lb | FT = 20%    |

|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x4 SP No.2 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| OTHERS 2x4 SP No.3    |   |

**REACTIONS.** All bearings 18-8-8.  
(lb) - Max Horz 1=-146(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-176(LC 14), 6=-176(LC 15)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=345(LC 28), 8=492(LC 25), 6=492(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-344/228, 4-6=-344/227

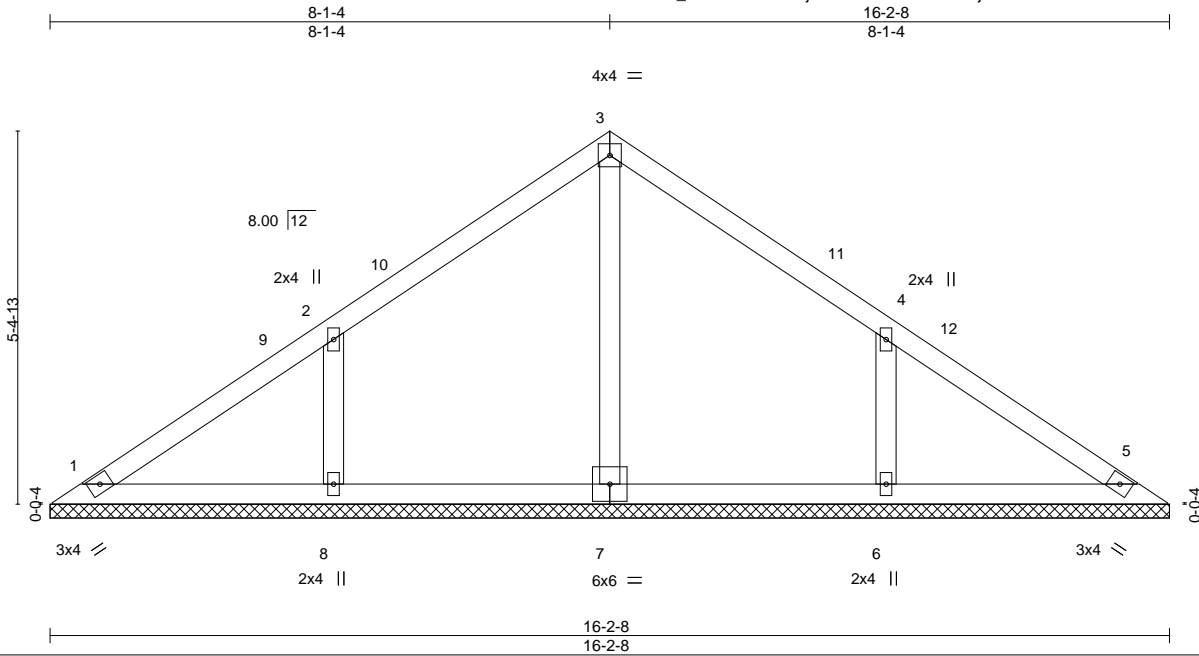
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 9-4-4, Exterior(2) 9-4-4 to 12-4-4, Interior(1) 12-4-4 to 18-2-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 except (jt=lb) 8=176, 6=176.



|               |             |                     |          |          |                |           |
|---------------|-------------|---------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>V2 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910274 |
|---------------|-------------|---------------------|----------|----------|----------------|-----------|

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:58 2019 Page 1  
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Scale = 1:33.4

|                        |                      |             |                         |               |             |
|------------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.22     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.12     | Vert(LL) n/a - n/a 999  |               |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.09     | Vert(CT) n/a - n/a 999  |               |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S    | Horz(CT) 0.00 5 n/a n/a |               |             |
| BCDL 10.0              | Code IRC2015/TP12014 |             |                         | Weight: 65 lb | FT = 20%    |

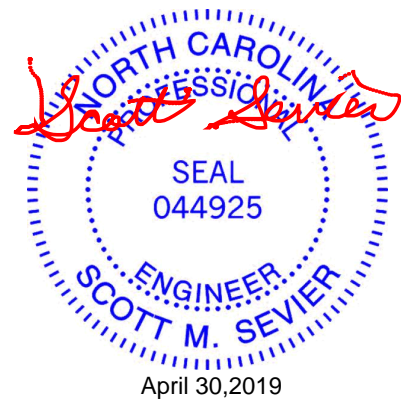
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 16-2-8.  
(lb) - Max Horz 1=-126(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-149(LC 14), 6=-149(LC 15)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=383(LC 25), 6=383(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-291/194, 4-6=-291/194

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 8-1-4, Exterior(2) 8-1-4 to 11-1-4, Interior(1) 11-1-4 to 15-8-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 except (jt=lb) 8=149, 6=149.

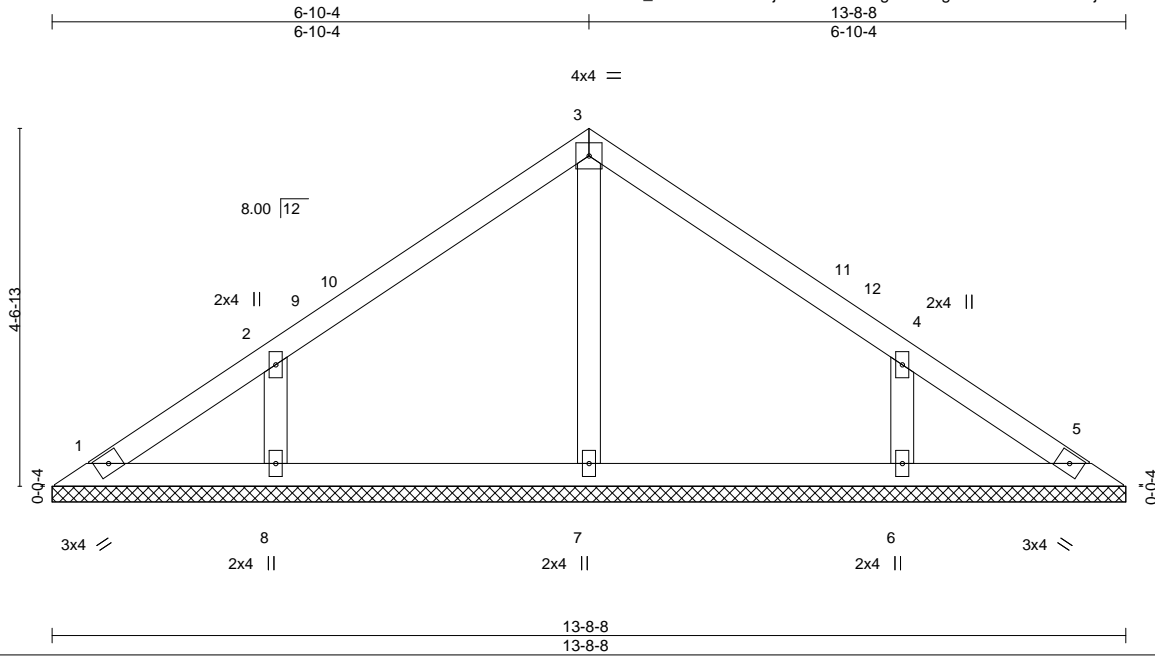




|               |             |                     |          |          |                |           |
|---------------|-------------|---------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>V3 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910275 |
|---------------|-------------|---------------------|----------|----------|----------------|-----------|

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:51:59 2019 Page 1  
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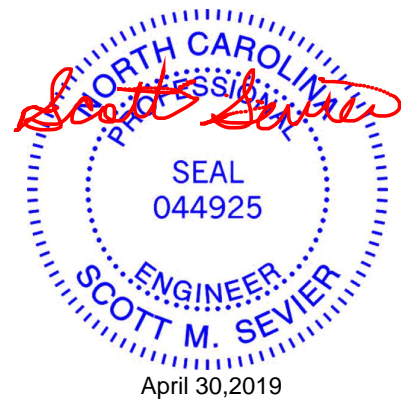
|                        |                      |             |                         |               |             |
|------------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.17     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.12     | Vert(LL) n/a - n/a 999  |               |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.07     | Vert(CT) n/a - n/a 999  |               |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S    | Horz(CT) 0.00 5 n/a n/a |               |             |
| BCDL 10.0              | Code IRC2015/TP12014 |             |                         | Weight: 53 lb | FT = 20%    |

|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x4 SP No.2 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| OTHERS 2x4 SP No.3    |   |

**REACTIONS.** All bearings 13-8-8.  
 (lb) - Max Horz 1=105(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-130(LC 14), 6=-130(LC 15)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=264(LC 2), 8=325(LC 25), 6=325(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-255/171, 4-6=-254/171

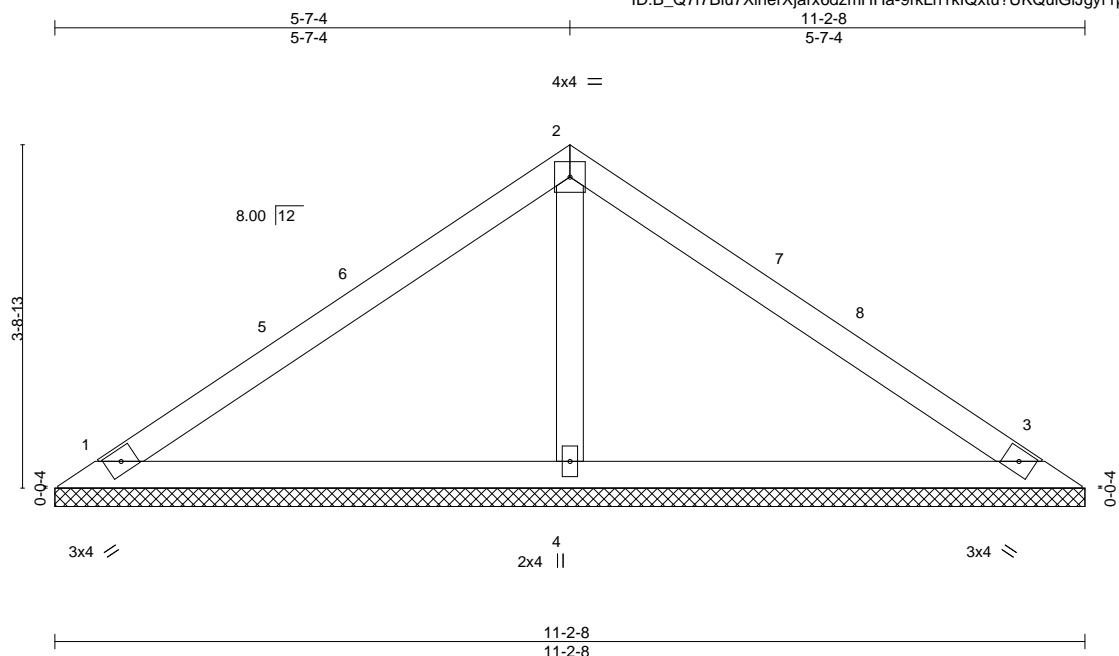
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 6-10-4, Exterior(2) 6-10-4 to 9-10-4, Interior(1) 9-10-4 to 13-2-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 except (jt=lb) 8=130, 6=130.



|               |             |                     |          |          |                |           |
|---------------|-------------|---------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>V4 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910276 |
|---------------|-------------|---------------------|----------|----------|----------------|-----------|

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:52:00 2019 Page 1  
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Scale = 1:25.1

|                        |                      |             |                         |               |             |
|------------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.38     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.26     | Vert(LL) n/a - n/a 999  |               |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.07     | Vert(CT) n/a - n/a 999  |               |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-S    | Horz(CT) 0.00 3 n/a n/a |               |             |
| BCDL 10.0              | Code IRC2015/TPI2014 |             |                         | Weight: 40 lb | FT = 20%    |

|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x4 SP No.2 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| OTHERS 2x4 SP No.3    |   |

**REACTIONS.** (lb/size) 1=177/11-2-8, 3=177/11-2-8, 4=372/11-2-8  
 Max Horz 1=-84(LC 10)  
 Max Uplift 1=-37(LC 14), 3=-49(LC 15), 4=-13(LC 14)  
 Max Grav 1=202(LC 2), 3=202(LC 2), 4=416(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-4=-265/83

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 5-7-4, Exterior(2) 5-7-4 to 8-7-4, Interior(1) 8-7-4 to 10-8-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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, 4.

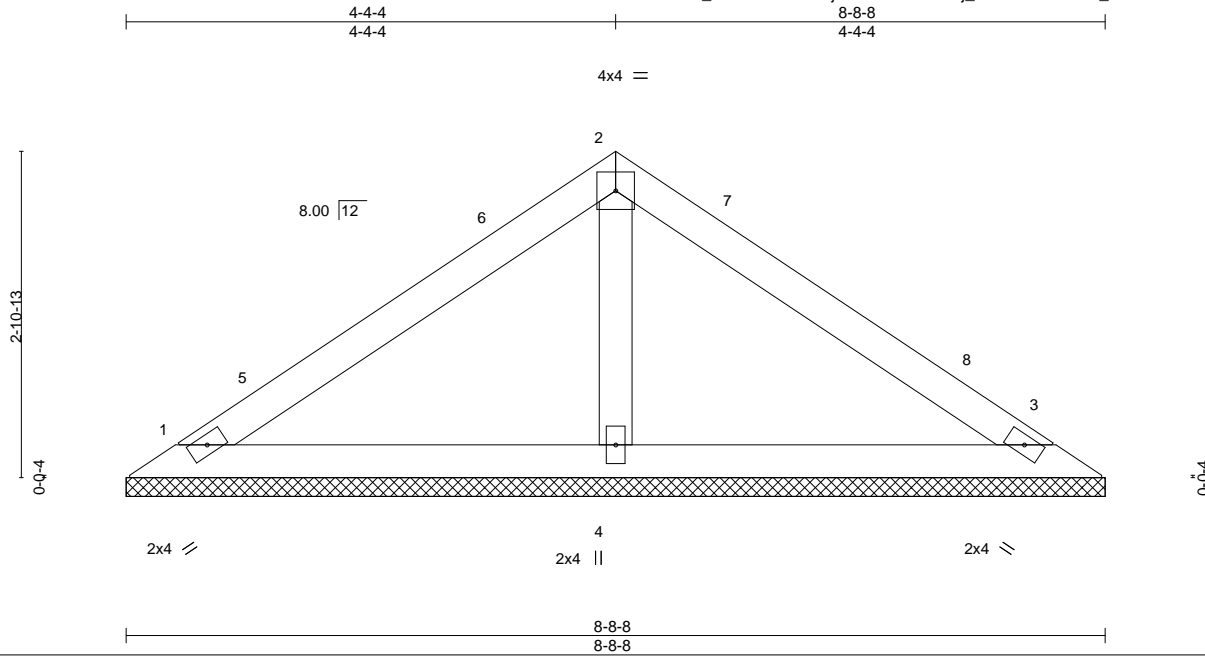


April 30, 2019

|               |             |                     |          |          |                |           |
|---------------|-------------|---------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>V5 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910277 |
|---------------|-------------|---------------------|----------|----------|----------------|-----------|

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:52:01 2019 Page 1  
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Scale = 1:20.5

|                        |                      |             |                         |               |             |
|------------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0       | 2-0-0                | TC 0.29     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.15     | Vert(LL) n/a - n/a 999  |               |             |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.04     | Vert(CT) n/a - n/a 999  |               |             |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-P    | Horz(CT) 0.00 3 n/a n/a |               |             |
| BCDL 10.0              | Code IRC2015/TPI2014 |             |                         | Weight: 30 lb | FT = 20%    |

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

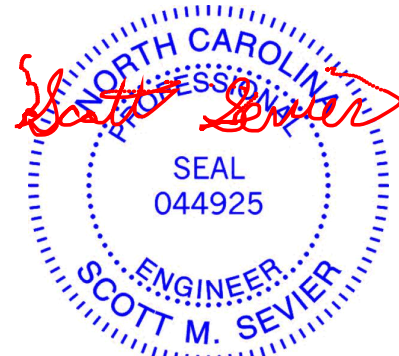
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=146/8-8-8, 3=146/8-8-8, 4=256/8-8-8  
Max Horz 1=64(LC 10)  
Max Uplift 1=-37(LC 14), 3=-46(LC 15)  
Max Grav 1=167(LC 2), 3=167(LC 2), 4=285(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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-4-4, Exterior(2) 4-4-4 to 7-4-4, Interior(1) 7-4-4 to 8-2-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load); Lumber DOL=1.15 Plate DOL=1.15; Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow); Lumber DOL=1.15 Plate DOL=1.15; Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

|               |             |                      |          |          |                |           |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>V6 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910278 |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:52:01 2019 Page 1  
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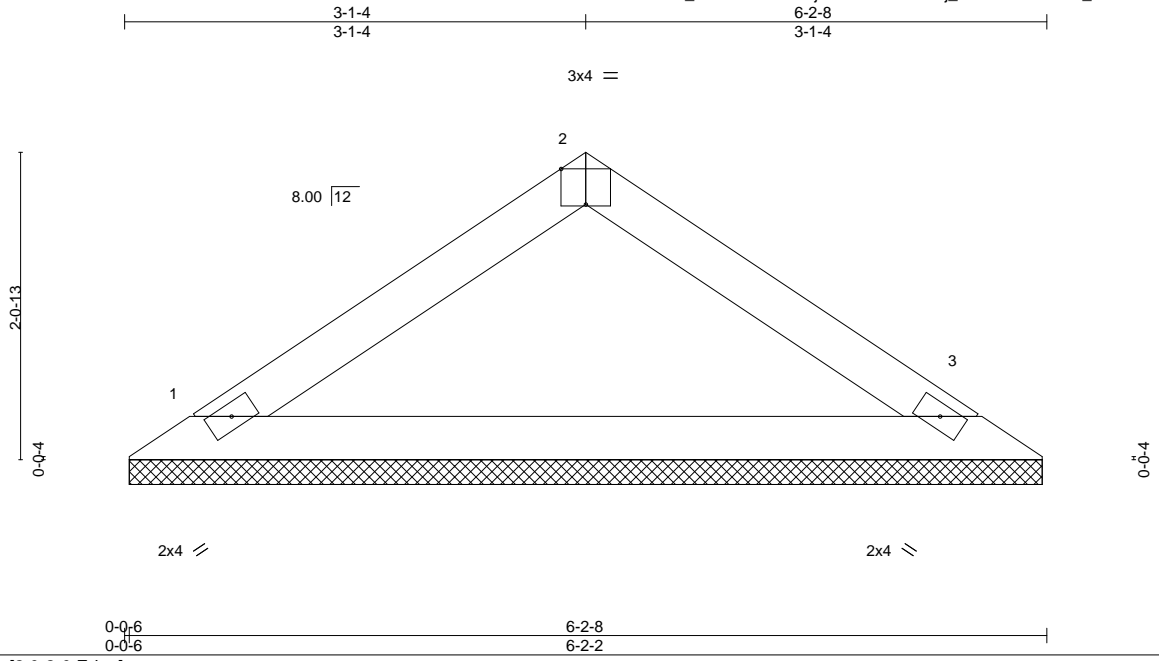


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

| LOADING (psf)          | SPACING-             | CSI.     | DEFL.                   | PLATES        | GRIP     |
|------------------------|----------------------|----------|-------------------------|---------------|----------|
| TCLL (roof) 20.0       | 2-0-0                | TC 0.12  | in (loc) l/defl L/d     | MT20          | 244/190  |
| Snow (Pf/Pg) 15.4/20.0 | Plate Grip DOL 1.15  | BC 0.35  | Vert(LL) n/a - n/a 999  |               |          |
| TCDL 10.0              | Lumber DOL 1.15      | WB 0.00  | Vert(CT) n/a - n/a 999  |               |          |
| BCLL 0.0 *             | Rep Stress Incr YES  | Matrix-P | Horz(CT) 0.00 3 n/a n/a |               |          |
| BCDL 10.0              | Code IRC2015/TPI2014 |          |                         | Weight: 19 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 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=186/6-1-12, 3=186/6-1-12  
Max Horz 1=43(LC 11)  
Max Uplift 1=-23(LC 14), 3=-23(LC 15)  
Max Grav 1=210(LC 2), 3=210(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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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.



April 30, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



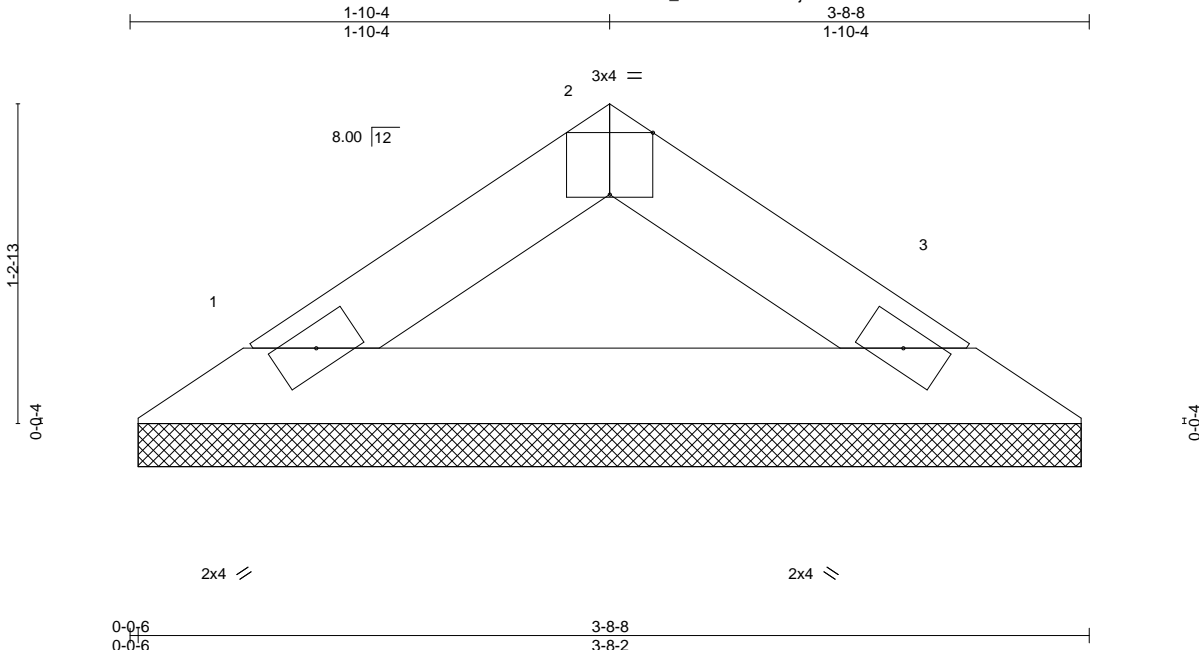
818 Soundside Road  
Edenton, NC 27932

|               |             |                      |          |          |                |           |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|
| Job<br>20583A | Truss<br>V7 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | 240.3174.A CVP | 136910279 |
|---------------|-------------|----------------------|----------|----------|----------------|-----------|

84 Components (Dunn), Dunn, NC - 28334,

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Scale = 1:8.9

|                                      |                      |                |               |          |        |     |               |             |
|--------------------------------------|----------------------|----------------|---------------|----------|--------|-----|---------------|-------------|
| Plate Offsets (X,Y)-- [2:0-2-0,Edge] | 0-0-6<br>0-0-6       | 3-8-8<br>3-8-2 |               |          |        |     |               |             |
| <b>LOADING</b> (psf)                 | <b>SPACING-</b>      | <b>CSI.</b>    | <b>DEFL.</b>  | in (loc) | l/defl | L/d | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0                     | Plate Grip DOL 1.15  | TC 0.03        | Vert(LL) n/a  | -        | n/a    | 999 | MT20          | 244/190     |
| Snow (Pf/Pg) 15.4/20.0               | Lumber DOL 1.15      | BC 0.09        | Vert(CT) n/a  | -        | n/a    | 999 |               |             |
| TCDL 10.0                            | Rep Stress Incr YES  | WB 0.00        | Horz(CT) 0.00 | 3        | n/a    | n/a |               |             |
| BCLL 0.0 *                           | Code IRC2015/TPI2014 | Matrix-P       |               |          |        |     | Weight: 10 lb | FT = 20%    |
| BCDL 10.0                            |                      |                |               |          |        |     |               |             |

|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 3-8-8 oc purlins. |
| BOT CHORD 2x4 SP No.2 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |

**REACTIONS.** (lb/size) 1=97/3-7-12, 3=97/3-7-12  
 Max Horz 1=-23(LC 10)  
 Max Uplift 1=-12(LC 14), 3=-12(LC 15)  
 Max Grav 1=110(LC 2), 3=110(LC 2)

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

**NOTES-**

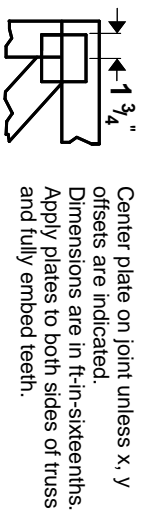
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



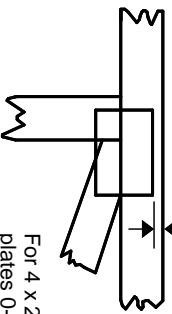
April 30, 2019

# Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0-  $\frac{1}{16}$ " from outside edge of truss.



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

## PLATE SIZE

4 X 4

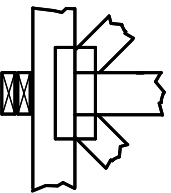
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

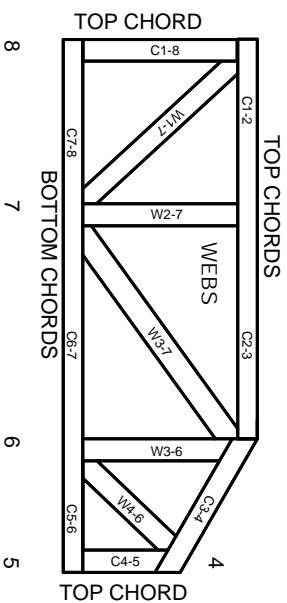


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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MITek Engineering Reference Sheet: Mill-7473 rev. 10/03/2015



# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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