

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: J0224-1121  
Lot 2 Docs Road

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Pages or sheets covered by this seal: I63945327 thru I63945338

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

North Carolina COA: C-0844



March 4, 2024

Gilbert, Eric

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

|                   |                |                     |          |          |                              |
|-------------------|----------------|---------------------|----------|----------|------------------------------|
| Job<br>J0224-1121 | Truss<br>A1-GE | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | Lot 2 Docs Road<br>163945327 |
|-------------------|----------------|---------------------|----------|----------|------------------------------|

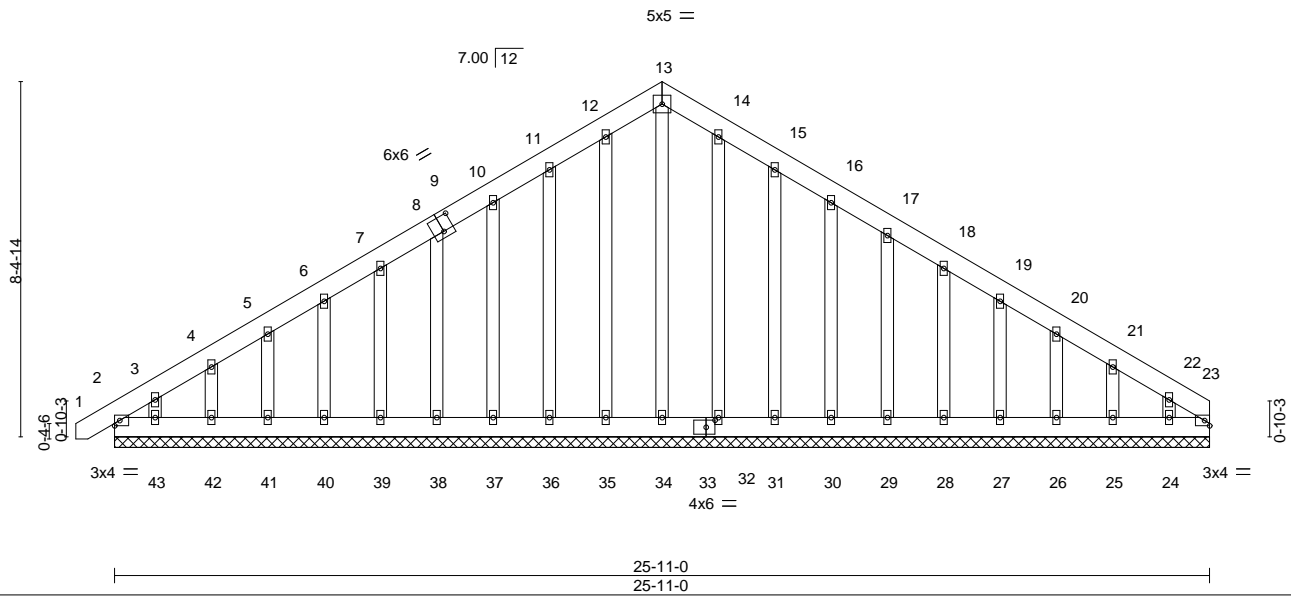
Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:03 2024 Page 1

ID:jlLOY8p0mDeACOkwS76gWg8zLvcz-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:54.5



|                       |                                   |
|-----------------------|-----------------------------------|
| Plate Offsets (X,Y)-- | [9:0-3-0,0-4-4], [33:0-2-8,0-2-0] |
|-----------------------|-----------------------------------|

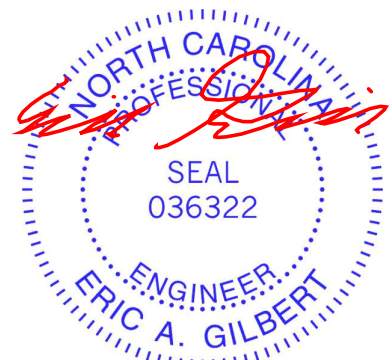
| LOADING (psf) | SPACING-             | CSI.     | DEFL.                    | PLATES         | GRIP     |
|---------------|----------------------|----------|--------------------------|----------------|----------|
| TCLL 20.0     | 2-0-0                | TC 0.04  | in (loc) l/defl L/d      | MT20           | 244/190  |
| TCDL 10.0     | Plate Grip DOL 1.15  | BC 0.02  | Vert(LL) -0.00 1 n/r 120 |                |          |
| BCLL 0.0 *    | Lumber DOL 1.15      | WB 0.12  | Vert(CT) -0.00 1 n/r 120 |                |          |
| BCDL 10.0     | Rep Stress Incr YES  | Matrix-S | Horz(CT) 0.00 23 n/a n/a |                |          |
|               | Code IRC2015/TPI2014 |          |                          | Weight: 242 lb | FT = 20% |

| LUMBER-               | BRACING-  |
|-----------------------|---|
| TOP CHORD 2x6 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x6 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| OTHERS 2x4 SP No.2    |   |


**REACTIONS.** All bearings 25-11-0.  
 (lb) - Max Horz 2=239(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 23, 2, 35, 36, 37, 38, 39, 40, 41, 42, 32, 31, 30, 29, 28, 27, 26, 25 except 43=105(LC 12), 24=101(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 23, 2, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 32, 31, 30, 29, 28, 27, 26, 25, 24

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=261/201

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; 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
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 1-4-0 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 30.0psf 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) 23, 2, 35, 36, 37, 38, 39, 40, 41, 42, 32, 31, 30, 29, 28, 27, 26, 25 except (jt=lb) 43=105, 24=101.



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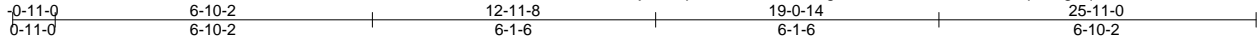
|   |   |
|---|---|
| <p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, 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 and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p> |  <p>818 Soundside Road<br/>Edenton, NC 27932</p> |
|---|---|

|                   |             |                      |           |          |                              |
|-------------------|-------------|----------------------|-----------|----------|------------------------------|
| Job<br>J0224-1121 | Truss<br>A2 | Truss Type<br>COMMON | Qty<br>11 | Ply<br>1 | Lot 2 Docs Road<br>163945328 |
|-------------------|-------------|----------------------|-----------|----------|------------------------------|

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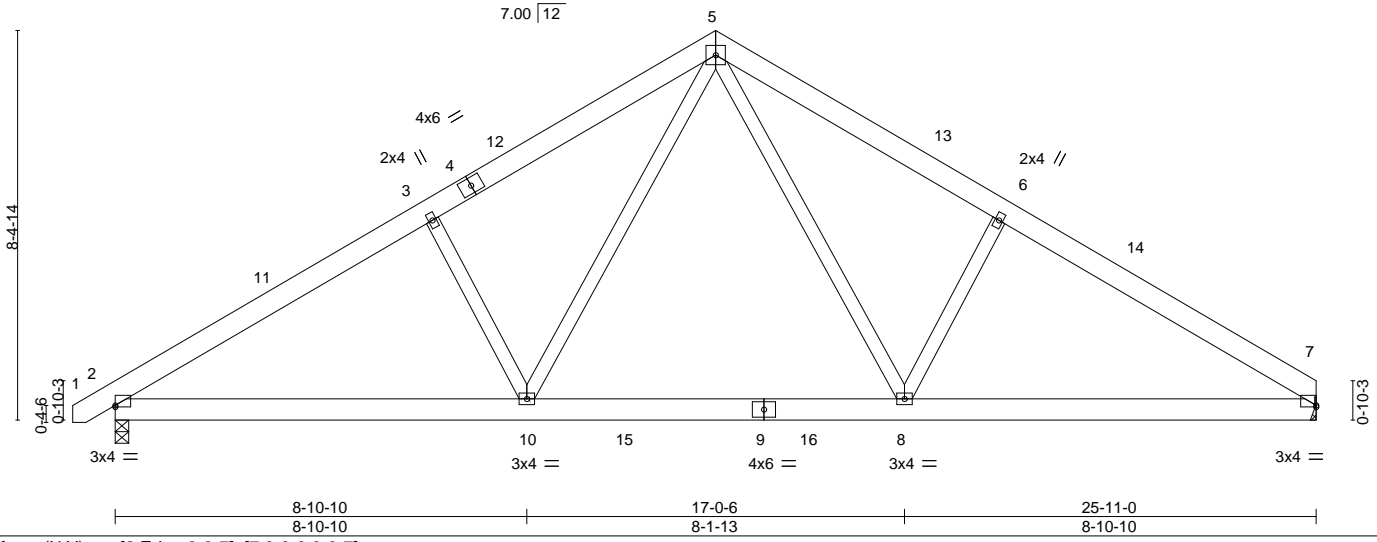
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:04 2024 Page 1

ID:jLOY8p0mDeACOkwS76gWG8zLvcz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



5x5 =

Scale = 1:49.7



|                        |                                 |             |                                  |                |             |
|------------------------|---------------------------------|-------------|----------------------------------|----------------|-------------|
| Plate Offsets (X, Y)-- | [2:Edge,0-0-7], [7:0-0-0,0-0-7] |             |                                  |                |             |
| <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 20.0              | Plate Grip DOL 1.15             | TC 0.28     | Vert(LL) -0.08 8-10 >999 360     | MT20           | 244/190     |
| TCDL 10.0              | Lumber DOL 1.15                 | BC 0.30     | Vert(CT) -0.12 8-10 >999 240     |                |             |
| BCLL 0.0 *             | Rep Stress Incr YES             | WB 0.17     | Horz(CT) 0.03 7 n/a n/a          |                |             |
| BCDL 10.0              | Code IRC2015/TPI2014            | Matrix-S    | Wind(LL) 0.02 2-10 >999 240      | Weight: 172 lb | FT = 20%    |

|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x6 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x6 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| WEBS 2x4 SP No.2      |   |

**REACTIONS.** (size) 7=Mechanical, 2=0-3-8  
 Max Horz 2=191(LC 11)  
 Max Uplift 7=-58(LC 13), 2=-70(LC 12)  
 Max Grav 7=1050(LC 20), 2=1103(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1584/325, 3-5=-1435/383, 5-6=-1446/395, 6-7=-1578/336  
 BOT CHORD 2-10=-176/1385, 8-10=-14/932, 7-8=-179/1259  
 WEBS 5-8=-126/681, 6-8=-390/243, 5-10=-123/663, 3-10=-379/236

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-5 to 3-7-8, Interior(1) 3-7-8 to 12-11-8, Exterior(2) 12-11-8 to 17-4-5, Interior(1) 17-4-5 to 25-10-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 30.0psf 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.



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|  |   |
|--|---|
| <p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p> | <p>818 Soundside Road<br/>Edenton, NC 27932</p> |
|--|---|

|                   |             |                            |           |          |                              |
|-------------------|-------------|----------------------------|-----------|----------|------------------------------|
| Job<br>J0224-1121 | Truss<br>A3 | Truss Type<br>Roof Special | Qty<br>10 | Ply<br>1 | Lot 2 Docs Road<br>163945329 |
|-------------------|-------------|----------------------------|-----------|----------|------------------------------|

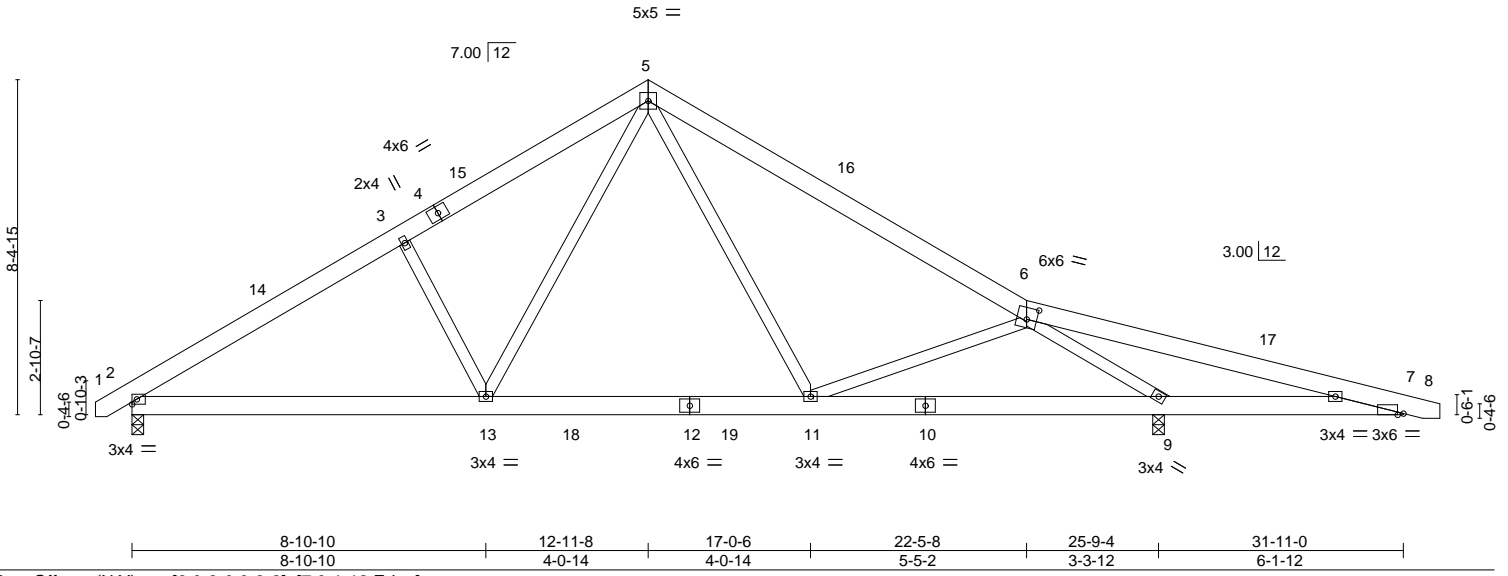
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|        |        |         |         |        |         |         |
|--------|--------|---------|---------|--------|---------|---------|
| 0-11-0 | 6-10-2 | 12-11-8 | 19-0-14 | 22-5-8 | 31-11-0 | 32-10-0 |
| 0-11-0 | 6-10-2 | 6-1-6   | 6-1-6   | 3-4-10 | 9-5-8   | 0-11-0  |

Scale = 1:57.8



| LOADING (psf) | SPACING-             | CSI.     | DEFL.                         | PLATES         | GRIP     |
|---------------|----------------------|----------|-------------------------------|----------------|----------|
| TCLL 20.0     | 2-0-0                | TC 0.45  | in (loc) l/defl L/d           | MT20           | 244/190  |
| TCDL 10.0     | Plate Grip DOL 1.15  | BC 0.30  | Vert(LL) -0.09 11-13 >999 360 |                |          |
| BCLL 0.0 *    | Lumber DOL 1.15      | WB 0.75  | Vert(CT) -0.13 11-13 >999 240 |                |          |
| BCDL 10.0     | Rep Stress Incr YES  | Matrix-S | Horz(CT) 0.02 9 n/a n/a       |                |          |
|               | Code IRC2015/TPI2014 |          | Wind(LL) 0.03 11-13 >999 240  | Weight: 210 lb | FT = 20% |

|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x6 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 5-11-13 oc purlins. |
| BOT CHORD 2x6 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:      |
| WEBS 2x4 SP No.2      | 6-0-0 oc bracing: 7-9.  |

**REACTIONS.** (size) 2=0-3-8, 9=0-3-8  
 Max Horz 2=-193(LC 10)  
 Max Uplift 2=-72(LC 12), 9=-127(LC 13)  
 Max Grav 2=1062(LC 19), 9=1609(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1510/250, 3-5=-1359/306, 5-6=-1256/135, 6-7=-1101/1250  
 BOT CHORD 2-13=-103/1323, 11-13=0/875, 9-11=-62/1146, 7-9=-1144/1119  
 WEBS 5-11=0/370, 6-9=-2430/1052, 5-13=-123/663, 3-13=-349/225

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-5 to 3-7-8, Interior(1) 3-7-8 to 12-11-8, Exterior(2) 12-11-8 to 17-4-5, Interior(1) 17-4-5 to 32-7-7 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 30.0psf 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) 2 except (jt=lb) 9=127.



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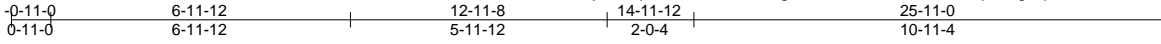
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|--|---|
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|--|---|

|                   |                |                     |          |          |   |           |
|-------------------|----------------|---------------------|----------|----------|---|-----------|
| Job<br>J0224-1121 | Truss<br>A4-GE | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | Lot 2 Docs Road<br>Job Reference (optional) | 163945330 |
|-------------------|----------------|---------------------|----------|----------|---|-----------|

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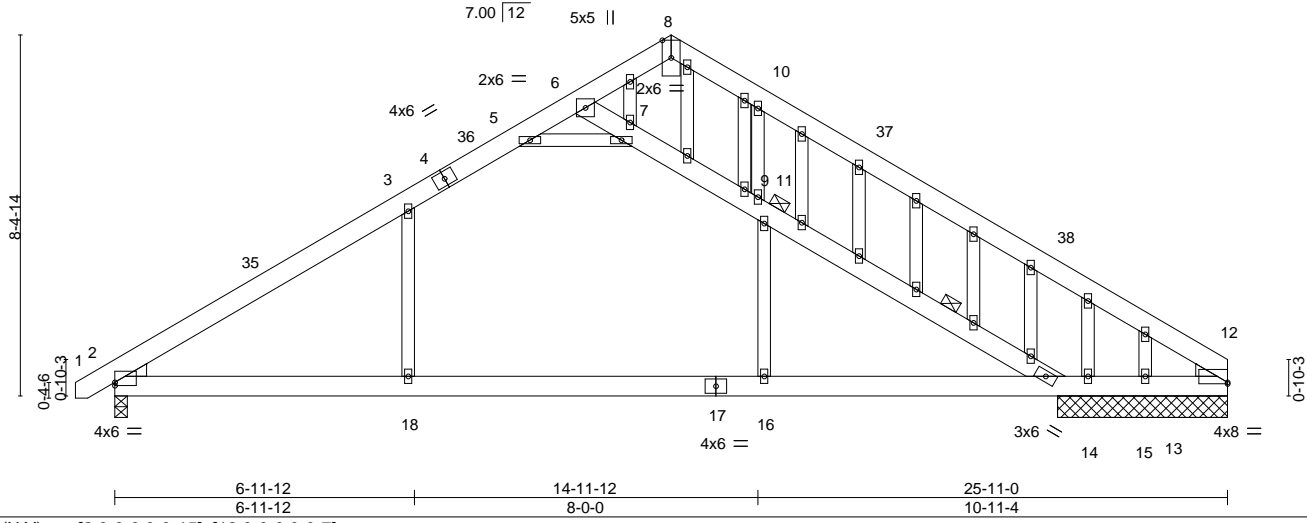
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:06 2024 Page 1

ID:jLOY8p0mDeACOkwS76gWG8zLvcz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



5x10 M18AHS ||

Scale = 1:53.7



|                       |                                    |
|-----------------------|------------------------------------|
| Plate Offsets (X,Y)-- | [2:0-0-0,0-0-15], [12:0-0-0,0-0-7] |
|-----------------------|------------------------------------|

| LOADING (psf) | SPACING-             | CSI.     | DEFL.                         | PLATES         | GRIP     |
|---------------|----------------------|----------|-------------------------------|----------------|----------|
| TCLL 20.0     | 2-0-0                | TC 0.78  | in (loc) l/defl L/d           | MT20           | 244/190  |
| TCDL 10.0     | Plate Grip DOL 1.15  | BC 0.45  | Vert(LL) -0.21 16-18 >999 360 | M18AHS         | 186/179  |
| BCLL 0.0 *    | Lumber DOL 1.15      | WB 0.27  | Vert(CT) -0.32 16-18 >845 240 |                |          |
| BCDL 10.0     | Rep Stress Incr YES  | Matrix-S | Horz(CT) 0.03 12 n/a n/a      |                |          |
|               | Code IRC2015/TPI2014 |          | Wind(LL) 0.14 18 >999 240     | Weight: 214 lb | FT = 20% |

| LUMBER-                               | BRACING-  |
|---------------------------------------|---|
| TOP CHORD 2x6 SP No.1                 | TOP CHORD Structural wood sheathing directly applied or 5-5-9 oc purlins. |
| BOT CHORD 2x6 SP No.1                 | Except:   |
| WEBS 2x4 SP No.2                      | 1 Row at midpt 11-15  |
| OTHERS 2x4 SP No.2                    | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:    |
| WEDGE                                 | 6-0-0 oc bracing: 14-15.  |
| Left: 2x4 SP No.3, Right: 2x4 SP No.3 | JOINTS 1 Brace at Jt(s): 11   |

**REACTIONS.** All bearings 3-11-8 except (jt=length) 2=0-3-8.  
 (lb) - Max Horz 2=239(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) except 2=-217(LC 12), 15=-173(LC 9), 13=-326(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 15 except 12=390(LC 20), 2=1169(LC 19), 14=302(LC 3), 13=644(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1602/242, 3-5=-1223/303, 5-6=-246/574, 6-8=-574/179, 8-10=-633/291, 10-12=-842/104, 6-7=-461/1220, 7-9=-798/342, 9-11=-797/441, 11-15=-997/394  
 BOT CHORD 2-18=-194/1354, 16-18=-194/1354, 15-16=-194/1354, 14-15=-540/0, 13-14=0/540, 12-13=0/540  
 WEBS 5-7=-1966/596, 3-18=0/442, 11-16=0/457, 9-10=-288/334

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-9-5 to 3-7-8, Interior(1) 3-7-8 to 12-11-8, Exterior(2) 12-11-8 to 17-4-5, Interior(1) 17-4-5 to 25-11-0 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.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 1-4-0 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 30.0psf 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 217 lb uplift at joint 2, 173 lb uplift at joint 15 and 326 lb uplift at joint 13.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 4, 2024

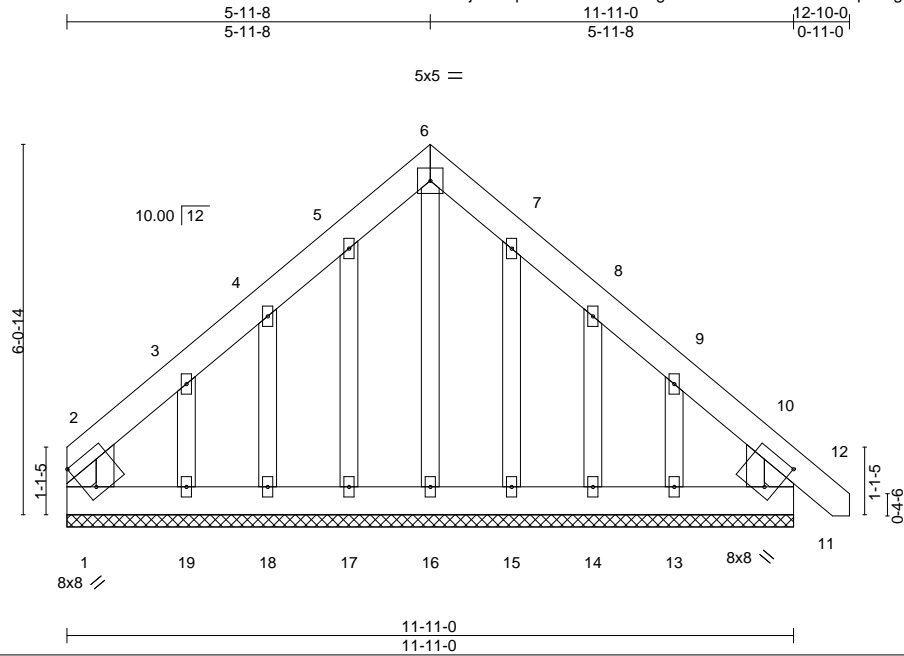
|   |   |
|---|---|
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|---|---|

|                   |               |                     |          |          |                              |
|-------------------|---------------|---------------------|----------|----------|------------------------------|
| Job<br>J0224-1121 | Truss<br>B1GE | Truss Type<br>GABLE | Qty<br>2 | Ply<br>1 | Lot 2 Docs Road<br>163945331 |
|-------------------|---------------|---------------------|----------|----------|------------------------------|

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:08 2024 Page 1

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Scale = 1:37.8

|                       |                                  |             |                                  |                |             |
|-----------------------|----------------------------------|-------------|----------------------------------|----------------|-------------|
| Plate Offsets (X,Y)-- | [1:Edge,0-6-5], [11:0-2-3,0-6-5] |             |                                  |                |             |
| <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 20.0             | Plate Grip DOL 1.15              | TC 0.03     | Vert(LL) 0.00 11 n/r 120         | MT20           | 244/190     |
| TCDL 10.0             | Lumber DOL 1.15                  | BC 0.03     | Vert(CT) 0.00 11 n/r 120         |                |             |
| BCLL 0.0 *            | Rep Stress Incr YES              | WB 0.05     | Horz(CT) 0.00 11 n/a n/a         |                |             |
| BCDL 10.0             | Code IRC2015/TPI2014             | Matrix-S    |                                  | Weight: 106 lb | FT = 20%    |

|  |   |
|--|---|
| <b>LUMBER-</b>   | <b>BRACING-</b>   |
| TOP CHORD 2x6 SP No.1                                    | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x6 SP No.1                                    | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| OTHERS 2x4 SP No.2                                       |   |
| SLIDER Left 2x4 SP No.2 0-7-14, Right 2x4 SP No.2 0-7-14 |   |

**REACTIONS.** All bearings 11-11-0.  
 (lb) - Max Horz 1=170(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 17, 18, 15, 14 except 19=186(LC 12), 13=141(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 11, 16, 17, 18, 19, 15, 14, 13

**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 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-4-10 to 4-7-8, Exterior(2) 4-7-8 to 5-11-8, Corner(3) 5-11-8 to 10-4-5, Exterior(2) 10-4-5 to 12-8-5 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 1-4-0 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 30.0psf 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, 11, 17, 18, 15, 14 except (jt=lb) 19=186, 13=141.



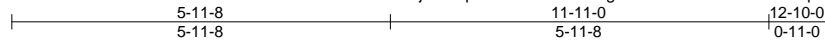
March 4, 2024

|                   |             |                      |          |          |                              |
|-------------------|-------------|----------------------|----------|----------|------------------------------|
| Job<br>J0224-1121 | Truss<br>B2 | Truss Type<br>COMMON | Qty<br>4 | Ply<br>1 | Lot 2 Docs Road<br>163945332 |
|-------------------|-------------|----------------------|----------|----------|------------------------------|

Comtech, Inc. Fayetteville, NC - 28314,

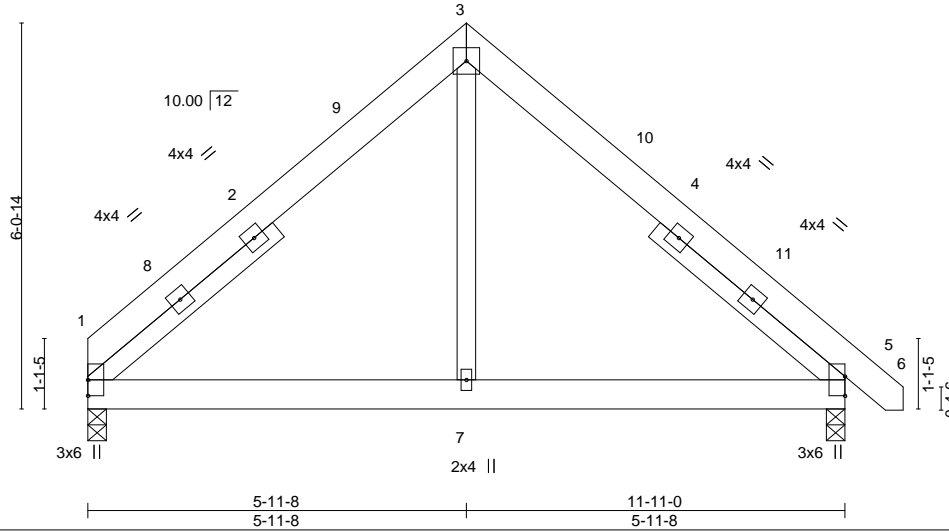
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:09 2024 Page 1

ID:jLOY8p0mDeACOkwS76gWG8zLvcz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwrcDoi7J4zJC?f



5x5 =

Scale = 1:36.3



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d  | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|------|---------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.15  | TC 0.14  | Vert(LL) | -0.01    | 1-7    | >999 | MT20          | 244/190  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.12  | Vert(CT) | -0.02    | 1-7    | >999 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.06  | Horz(CT) | 0.00     | 5      | n/a  |               |          |
| BCDL 10.0     | Code IRC2015/TPI2014 |       | Matrix-S | Wind(LL) | 0.01     | 5-7    | >999 |               |          |
|               |                      |       |          |          |          |        |      | Weight: 87 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.2 3-9-13, Right 2x4 SP No.2 3-9-13

**BRACING-**

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

**REACTIONS.**

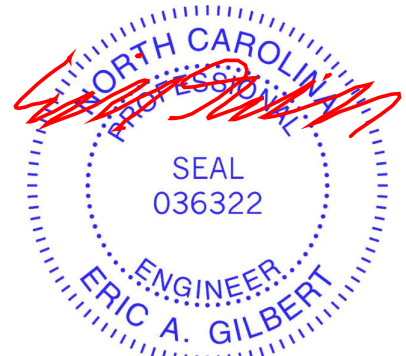
(size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=-134(LC 8)  
 Max Uplift 1=-18(LC 12), 5=-29(LC 13)  
 Max Grav 1=475(LC 1), 5=525(LC 1)

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

TOP CHORD 1-3=-491/155, 3-5=-518/155  
 BOT CHORD 1-7=0/307, 5-7=0/307  
 WEBS 3-7=0/278

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 5-11-8, Exterior(2) 5-11-8 to 10-4-5, Interior(1) 10-4-5 to 12-8-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 30.0psf 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, 5.



March 4, 2024

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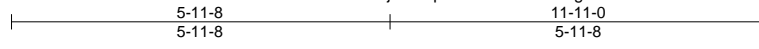
818 Soundside Road  
 Edenton, NC 27932

|                   |                |                             |          |          |                              |
|-------------------|----------------|-----------------------------|----------|----------|------------------------------|
| Job<br>J0224-1121 | Truss<br>B3-GR | Truss Type<br>COMMON GIRDER | Qty<br>1 | Ply<br>2 | Lot 2 Docs Road<br>I63945333 |
|-------------------|----------------|-----------------------------|----------|----------|------------------------------|

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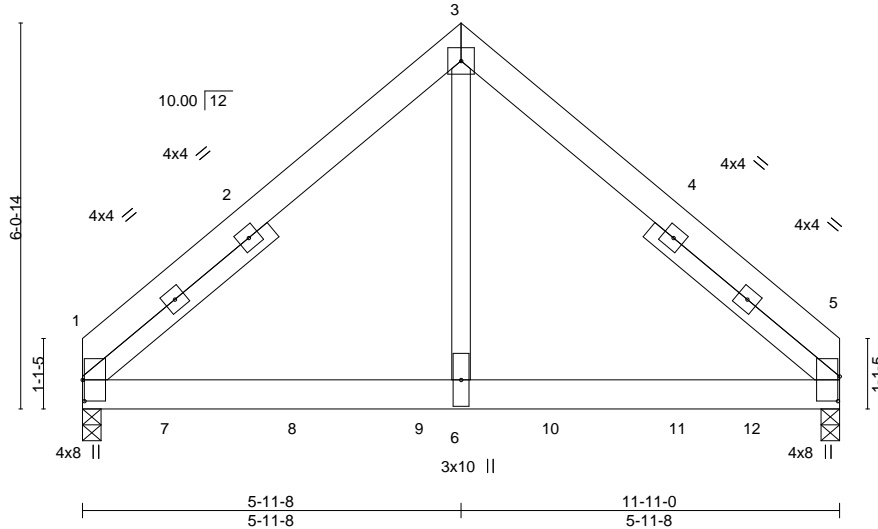
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:10 2024 Page 1

ID:jLOY8p0mDeACOkwS76gWG8zLvcz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f



5x5 =

Scale = 1:36.3



|                       |                                   |
|-----------------------|-----------------------------------|
| Plate Offsets (X,Y)-- | [1:0-4-0,0-0-5], [5:0-4-10,0-0-5] |
|-----------------------|-----------------------------------|

| LOADING (psf) | SPACING-             | CSI.     | DEFL.                       | PLATES         | GRIP     |
|---------------|----------------------|----------|-----------------------------|----------------|----------|
| TCLL 20.0     | 2-0-0                | TC 0.16  | in (loc) l/defl L/d         | MT20           | 244/190  |
| TCDL 10.0     | Plate Grip DOL 1.15  | BC 0.97  | Vert(LL) -0.06 5-6 >999 360 |                |          |
| BCLL 0.0 *    | Lumber DOL 1.15      | WB 0.46  | Vert(CT) -0.13 5-6 >999 240 |                |          |
| BCDL 10.0     | Rep Stress Incr NO   | Matrix-S | Horz(CT) 0.01 5 n/a n/a     |                |          |
|               | Code IRC2015/TPI2014 |          | Wind(LL) 0.05 5-6 >999 240  | Weight: 169 lb | FT = 20% |

| LUMBER-  | BRACING-  |
|--|---|
| TOP CHORD 2x6 SP No.1                                    | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x6 SP No.1                                    | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| WEBS 2x4 SP No.2   |   |
| SLIDER Left 2x4 SP No.2 3-9-13, Right 2x4 SP No.2 3-9-13 |   |

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=-133(LC 6)  
 Max Uplift 1=-216(LC 8), 5=-237(LC 9)  
 Max Grav 1=3347(LC 1), 5=3650(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-3232/258, 3-5=-3212/257  
 BOT CHORD 1-6=-131/2326, 5-6=-131/2326  
 WEBS 3-6=-187/3753

- 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: 2x6 - 2 rows staggered at 0-8-0 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 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - 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 30.0psf 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=216, 5=237.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1007 lb down and 78 lb up at 1-4-12, 1007 lb down and 78 lb up at 3-4-12, 1007 lb down and 78 lb up at 5-4-12, 1007 lb down and 78 lb up at 7-4-12, and 1007 lb down and 78 lb up at 9-4-12, and 1007 lb down and 78 lb up at 10-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-5=-60, 1-5=-20



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Continued on page 2

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

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

818 Soundside Road  
 Edenton, NC 27932



|                   |                |                             |          |                 |                              |
|-------------------|----------------|-----------------------------|----------|-----------------|------------------------------|
| Job<br>J0224-1121 | Truss<br>B3-GR | Truss Type<br>COMMON GIRDER | Qty<br>1 | Ply<br><b>2</b> | Lot 2 Docs Road<br>I63945333 |
|-------------------|----------------|-----------------------------|----------|-----------------|------------------------------|

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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:10 2024 Page 2  
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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 7=-1007(B) 8=-1007(B) 9=-1007(B) 10=-1007(B) 11=-1007(B) 12=-1007(B)

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

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**TRENCO**  
A MITEK Affiliate

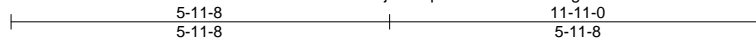
818 Soundside Road  
Edenton, NC 27932

|                   |                |                             |          |          |                              |
|-------------------|----------------|-----------------------------|----------|----------|------------------------------|
| Job<br>J0224-1121 | Truss<br>B4-GR | Truss Type<br>COMMON GIRDER | Qty<br>1 | Ply<br>2 | Lot 2 Docs Road<br>I63945334 |
|-------------------|----------------|-----------------------------|----------|----------|------------------------------|

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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:11 2024 Page 1

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5x5 =

Scale = 1:36.3

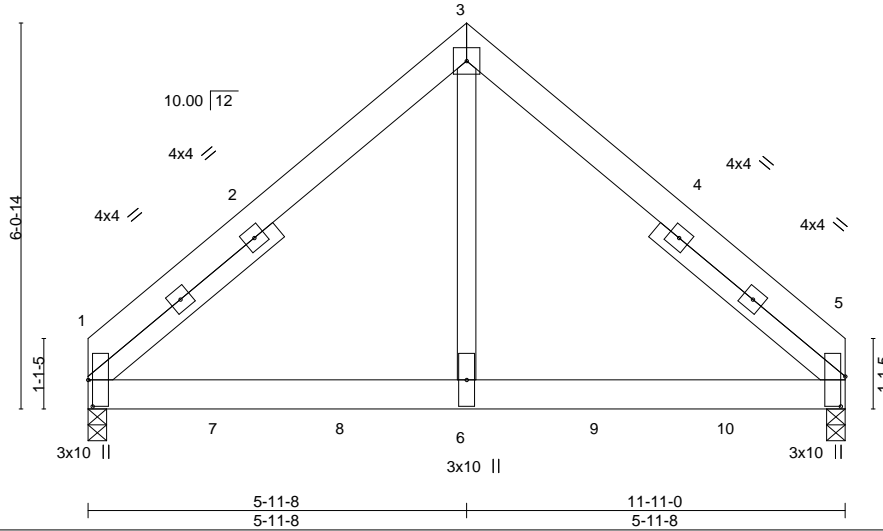


Plate Offsets (X,Y)-- [1:0-5-0,0-0-13], [5:0-5-10,0-0-13]

| LOADING (psf) | SPACING-             | CSI.     | DEFL.                       | PLATES         | GRIP     |
|---------------|----------------------|----------|-----------------------------|----------------|----------|
| TCLL 20.0     | 2-0-0                | TC 0.12  | in (loc) l/defl L/d         | MT20           | 244/190  |
| TCDL 10.0     | Plate Grip DOL 1.15  | BC 0.80  | Vert(LL) -0.05 1-6 >999 360 |                |          |
| BCLL 0.0 *    | Lumber DOL 1.15      | WB 0.43  | Vert(CT) -0.09 1-6 >999 240 |                |          |
| BCDL 10.0     | Rep Stress Incr NO   | Matrix-S | Horz(CT) 0.01 5 n/a n/a     |                |          |
|               | Code IRC2015/TPI2014 |          | Wind(LL) 0.03 1-6 >999 240  | Weight: 169 lb | FT = 20% |

**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.2 3-9-13, Right 2x4 SP No.2 3-9-13

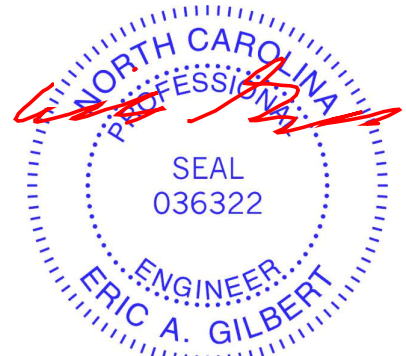
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=-133(LC 25)  
 Max Uplift 1=-189(LC 8), 5=-194(LC 9)  
 Max Grav 1=2960(LC 1), 5=3030(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-3035/244, 3-5=-3034/244  
 BOT CHORD 1-6=-121/2176, 5-6=-121/2176  
 WEBS 3-6=-171/3520

- 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: 2x6 - 2 rows staggered at 0-9-0 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 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - 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 30.0psf 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=189, 5=194.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1007 lb down and 78 lb up at 2-0-12, 1007 lb down and 78 lb up at 4-0-12, 1007 lb down and 78 lb up at 6-0-12, and 1007 lb down and 78 lb up at 8-0-12, and 1007 lb down and 78 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-5=-60, 1-5=-20



March 4, 2024

Continued on page 2

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|                   |                |                             |          |                 |  |
|-------------------|----------------|-----------------------------|----------|-----------------|--|
| Job<br>J0224-1121 | Truss<br>B4-GR | Truss Type<br>COMMON GIRDER | Qty<br>1 | Ply<br><b>2</b> | Lot 2 Docs Road<br>I63945334<br>Job Reference (optional) |
|-------------------|----------------|-----------------------------|----------|-----------------|--|

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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:12 2024 Page 2  
ID:jLOY8p0mDeACOkwS76gWG8zLvcz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 6=-1007(B) 7=-1007(B) 8=-1007(B) 9=-1007(B) 10=-1007(B)

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

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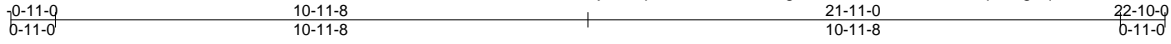
818 Soundside Road  
Edenton, NC 27932

|                   |                |                     |          |          |                              |
|-------------------|----------------|---------------------|----------|----------|------------------------------|
| Job<br>J0224-1121 | Truss<br>D01GE | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | Lot 2 Docs Road<br>163945335 |
|-------------------|----------------|---------------------|----------|----------|------------------------------|

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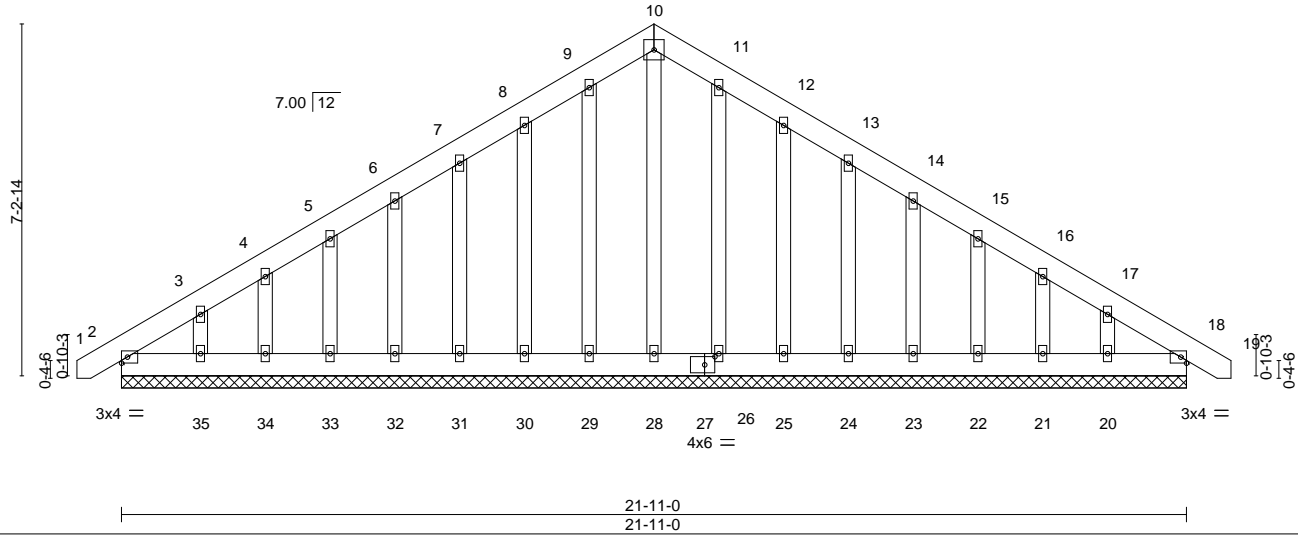
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:13 2024 Page 1

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5x5 =

Scale = 1:47.4



|                       |                       |             |                                  |                |             |
|-----------------------|-----------------------|-------------|----------------------------------|----------------|-------------|
| Plate Offsets (X,Y)-- | [27:0-2-8,0-2-0]      |             |                                  |                |             |
| <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 20.0             | Plate Grip DOL 1.15   | TC 0.03     | Vert(LL) -0.00 18 n/r 120        | MT20           | 244/190     |
| TCDL 10.0             | Lumber DOL 1.15       | BC 0.02     | Vert(CT) -0.00 18 n/r 120        |                |             |
| BCLL 0.0 *            | Rep Stress Incr YES   | WB 0.07     | Horz(CT) 0.00 18 n/a n/a         |                |             |
| BCDL 10.0             | Code IRC2015/TPI2014  | Matrix-S    |                                  | Weight: 193 lb | FT = 20%    |

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
OTHERS 2x4 SP No.2

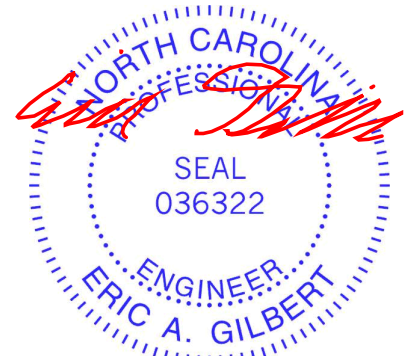
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 21-11-0.  
(lb) - Max Horz 2=205(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 29, 30, 31, 32, 33, 34, 35, 18, 26, 25, 24, 23, 22, 21, 20  
Max Grav All reactions 250 lb or less at joint(s) 2, 28, 29, 30, 31, 32, 33, 34, 35, 18, 26, 25, 24, 23, 22, 21, 20

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-9-5 to 3-7-8, Exterior(2) 3-7-8 to 10-11-8, Corner(3) 10-11-8 to 15-4-5, Exterior(2) 15-4-5 to 22-8-5 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 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 30.0psf 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, 29, 30, 31, 32, 33, 34, 35, 18, 26, 25, 24, 23, 22, 21, 20.



March 4, 2024

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



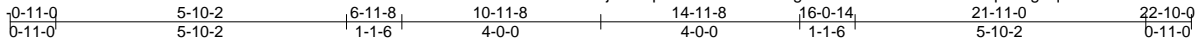
818 Soundside Road  
Edenton, NC 27932

|                   |              |                      |          |          |                              |
|-------------------|--------------|----------------------|----------|----------|------------------------------|
| Job<br>J0224-1121 | Truss<br>D02 | Truss Type<br>COMMON | Qty<br>6 | Ply<br>1 | Lot 2 Docs Road<br>163945336 |
|-------------------|--------------|----------------------|----------|----------|------------------------------|

Comtech, Inc. Fayetteville, NC - 28314,

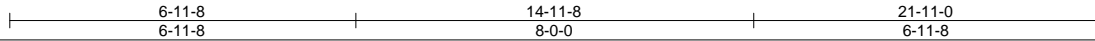
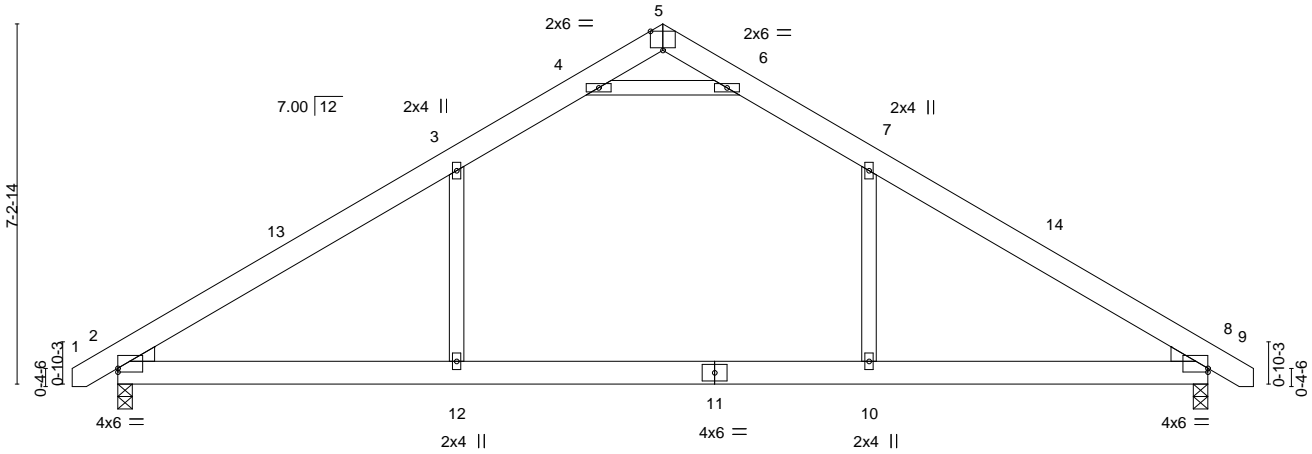
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:14 2024 Page 1

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4x6 =

Scale = 1:46.3



|                       |  |
|-----------------------|--|
| Plate Offsets (X,Y)-- | [2:0-0-0,0-0-15], [5:0-3-0,Edge], [8:0-0-0,0-0-15] |
|-----------------------|--|

| LOADING (psf) | SPACING-             | CSI.     | DEFL.                         | PLATES         | GRIP     |
|---------------|----------------------|----------|-------------------------------|----------------|----------|
| TCLL 20.0     | 2-0-0                | TC 0.60  | in (loc) l/defl L/d           | MT20           | 244/190  |
| TCDL 10.0     | Plate Grip DOL 1.15  | BC 0.42  | Vert(LL) -0.18 10-12 >999 360 |                |          |
| BCLL 0.0 *    | Lumber DOL 1.15      | WB 0.32  | Vert(CT) -0.28 10-12 >939 240 |                |          |
| BCDL 10.0     | Rep Stress Incr YES  | Matrix-S | Horz(CT) 0.02 8 n/a n/a       |                |          |
|               | Code IRC2015/TP12014 |          | Wind(LL) 0.11 2-12 >999 240   | Weight: 134 lb | FT = 20% |

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-10-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
Max Horz 2=-164(LC 10)  
Max Uplift 2=-61(LC 12), 8=-61(LC 13)  
Max Grav 2=1046(LC 19), 8=1046(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1463/222, 3-4=-1059/287, 4-5=-149/755, 5-6=-149/756, 6-7=-1059/287,  
7-8=-1463/222  
BOT CHORD 2-12=-68/1131, 10-12=-68/1131, 8-10=-68/1131  
WEBS 7-10=0/463, 3-12=0/463, 4-6=-1935/490

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-5 to 3-7-8, Interior(1) 3-7-8 to 10-11-8, Exterior(2) 10-11-8 to 15-1-4, Interior(1) 15-1-4 to 22-8-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.



March 4, 2024

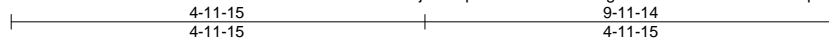
|  |   |
|--|---|
| <p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, 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 and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p> | <p>818 Soundside Road<br/>Edenton, NC 27932</p> |
|--|---|

|                   |             |                      |          |          |                              |
|-------------------|-------------|----------------------|----------|----------|------------------------------|
| Job<br>J0224-1121 | Truss<br>V1 | Truss Type<br>Valley | Qty<br>2 | Ply<br>1 | Lot 2 Docs Road<br>163945337 |
|-------------------|-------------|----------------------|----------|----------|------------------------------|

Comtech, Inc. Fayetteville, NC - 28314,

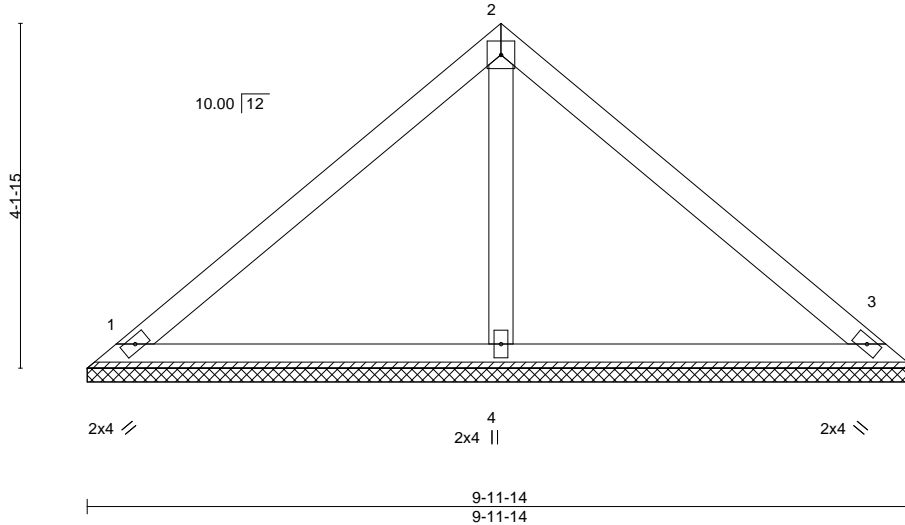
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:15 2024 Page 1

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4x4 =

Scale = 1:27.8



| LOADING (psf) | SPACING-             | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 20.0     | 2-0-0                | TC 0.22  | Vert(LL) | n/a      | -      | n/a | MT20          | 244/190  |
| TCDL 10.0     | Plate Grip DOL 1.15  | BC 0.16  | Vert(CT) | n/a      | -      | n/a |               |          |
| BCLL 0.0 *    | Lumber DOL 1.15      | WB 0.05  | Horz(CT) | 0.00     | 3      | n/a |               |          |
| BCDL 10.0     | Rep Stress Incr YES  | Matrix-S |          |          |        |     | Weight: 38 lb | FT = 20% |
|               | Code IRC2015/TPI2014 |          |          |          |        |     |               |          |

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

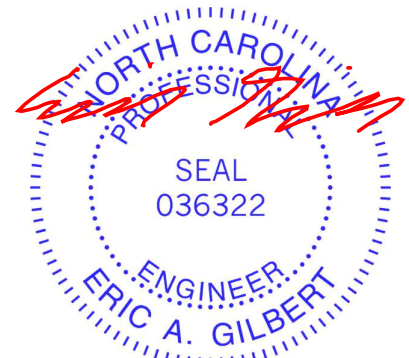
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=9-11-14, 3=9-11-14, 4=9-11-14  
 Max Horz 1=92(LC 8)  
 Max Uplift 1=22(LC 13), 3=30(LC 13)  
 Max Grav 1=196(LC 1), 3=196(LC 1), 4=342(LC 1)

**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 Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



March 4, 2024

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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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))



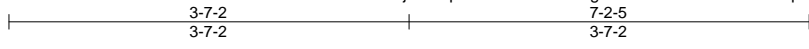
818 Soundside Road  
 Edenton, NC 27932

|                   |             |                      |          |          |                              |
|-------------------|-------------|----------------------|----------|----------|------------------------------|
| Job<br>J0224-1121 | Truss<br>V2 | Truss Type<br>Valley | Qty<br>2 | Ply<br>1 | Lot 2 Docs Road<br>163945338 |
|-------------------|-------------|----------------------|----------|----------|------------------------------|

Comtech, Inc. Fayetteville, NC - 28314,

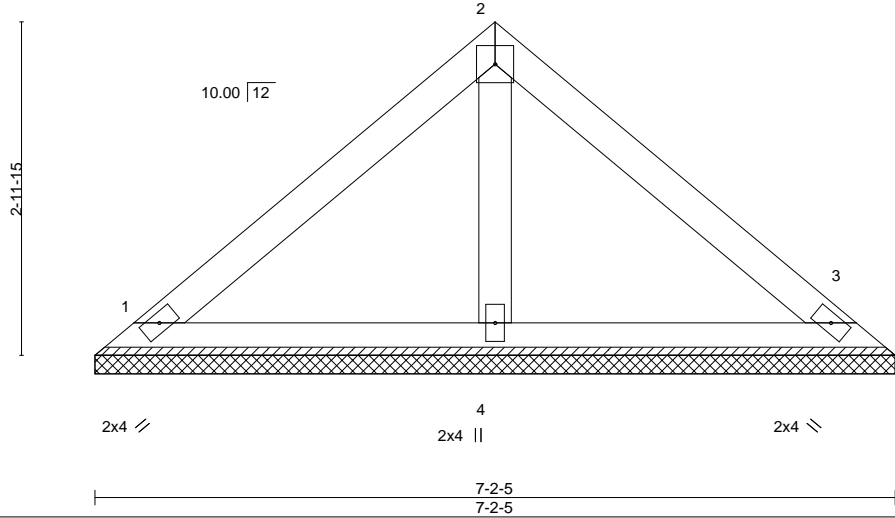
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:15:15 2024 Page 1

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4x4 =

Scale = 1:20.7



| LOADING (psf) | SPACING-             | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 20.0     | 2-0-0                | TC 0.15  | Vert(LL) | n/a      | -      | n/a | MT20          | 244/190  |
| TCDL 10.0     | Plate Grip DOL 1.15  | BC 0.08  | Vert(CT) | n/a      | -      | n/a |               |          |
| BCLL 0.0 *    | Lumber DOL 1.15      | WB 0.02  | Horz(CT) | 0.00     | 3      | n/a |               |          |
| BCDL 10.0     | Rep Stress Incr YES  | Matrix-P |          |          |        |     | Weight: 27 lb | FT = 20% |
|               | Code IRC2015/TPI2014 |          |          |          |        |     |               |          |

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

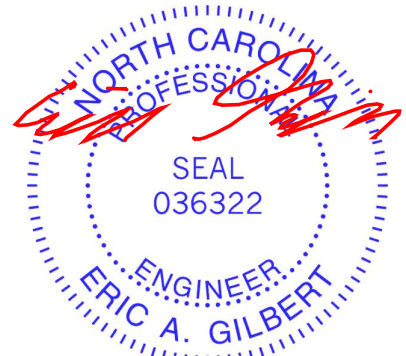
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=7-2-5, 3=7-2-5, 4=7-2-5  
 Max Horz 1=64(LC 9)  
 Max Uplift 1=22(LC 13), 3=28(LC 13)  
 Max Grav 1=148(LC 1), 3=148(LC 1), 4=215(LC 1)

**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 Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



March 4, 2024

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

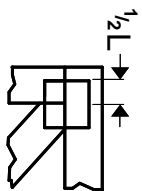
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



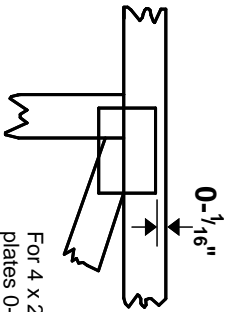
818 Soundside Road  
 Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/16\"/>



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

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

## PLATE SIZE

4 X 4

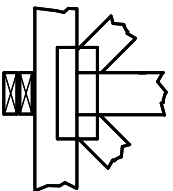
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



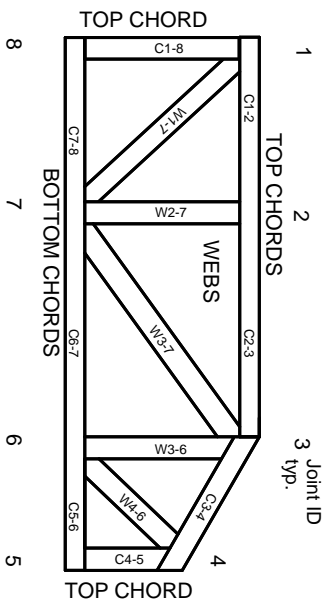
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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

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

# Product Code Approvals

ICC-ES Reports:

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

# Design General Notes

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

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

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**MITek**

ENGINEERING BY  
**TRENGO**  
A MITek Affiliate

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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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