

RE: 110 Maplewood
 South Scan

Trenco
 818 Soundside Rd
 Edenton, NC 27932

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014
 Wind Code: N/A
 Roof Load: 40.0 psf

Design Program: MiTek 20/20 8.3
 Wind Speed: 125 mph
 Floor Load: N/A psf

This package includes 25 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal# | Truss Name | Date |
|-----|-----------|------------|----------|
| 1 | E14688775 | A02 | 8/3/2020 |
| 2 | E14688776 | A02ALT | 8/3/2020 |
| 3 | E14688777 | A04 | 8/3/2020 |
| 4 | E14688778 | A05 | 8/3/2020 |
| 5 | E14688779 | B01 | 8/3/2020 |
| 6 | E14688780 | B02 | 8/3/2020 |
| 7 | E14688781 | B03 | 8/3/2020 |
| 8 | E14688782 | B04 | 8/3/2020 |
| 9 | E14688783 | B05 | 8/3/2020 |
| 10 | E14688784 | C01 | 8/3/2020 |
| 11 | E14688785 | C02 | 8/3/2020 |
| 12 | E14688786 | C03 | 8/3/2020 |
| 13 | E14688787 | C03A | 8/3/2020 |
| 14 | E14688788 | C04 | 8/3/2020 |
| 15 | E14688789 | C04ALT | 8/3/2020 |
| 16 | E14688790 | C06 | 8/3/2020 |
| 17 | E14688791 | C07 | 8/3/2020 |
| 18 | E14688792 | C08 | 8/3/2020 |
| 19 | E14688793 | C09 | 8/3/2020 |
| 20 | E14688794 | P01 | 8/3/2020 |
| 21 | E14688795 | P02 | 8/3/2020 |
| 22 | E14688796 | P03 | 8/3/2020 |
| 23 | E14688797 | P04 | 8/3/2020 |
| 24 | E14688798 | P05 | 8/3/2020 |
| 25 | E14688799 | P06 | 8/3/2020 |

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carolina Structural Systems, LLC.
 Truss Design Engineer's Name: Gilbert, Eric
 My license renewal date for the state of North Carolina is December 31, 2020.
 North Carolina COA: C-0844



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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

August 03, 2020

| | | | | | | |
|---------------|-------|------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688775 |
| 110 Maplewood | A02 | ATTIC | 11 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:32 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-2Vq2uC?_fSGvL9rrab7mWCs_hD4Ke2M6gf1AUysX1f

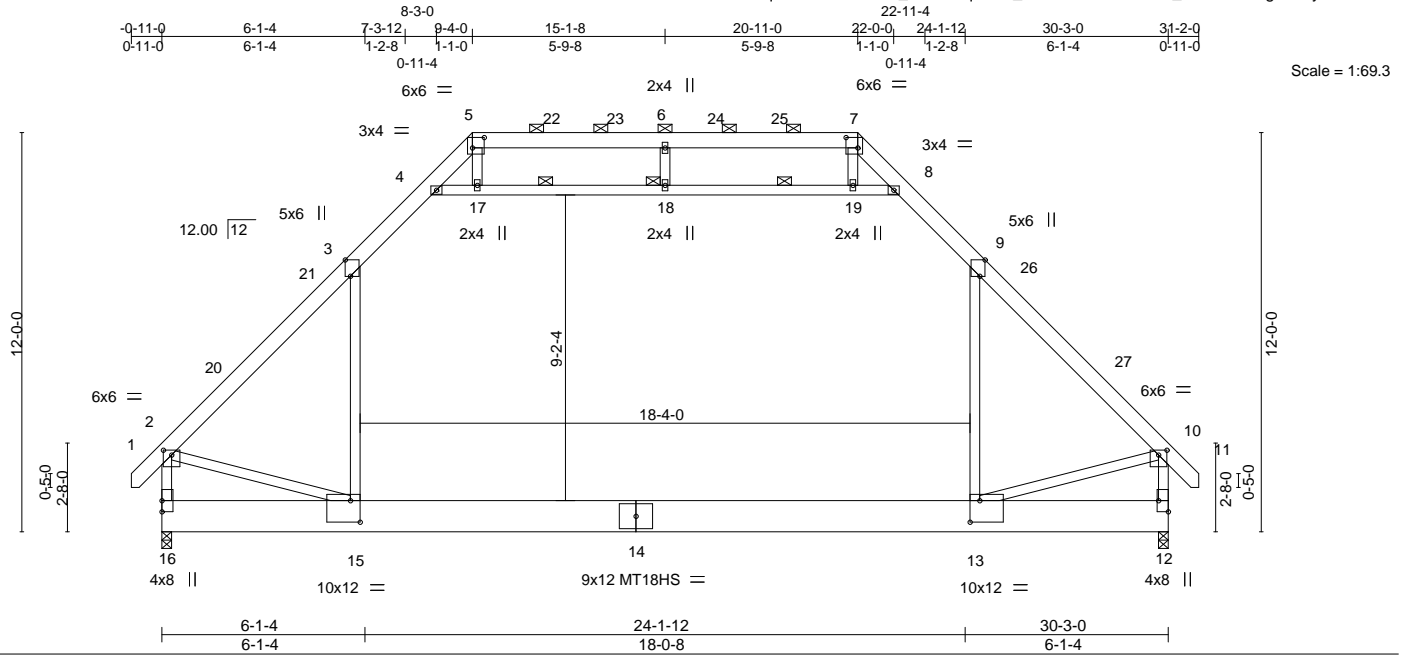


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12], [3:0-5-14,Edge], [5:0-4-4,0-3-12], [7:0-4-4,0-3-12], [9:0-5-14,Edge], [10:0-3-0,0-1-12], [12:Edge,0-3-8], [13:0-3-8,0-7-12], [15:0-3-8,0-7-12]

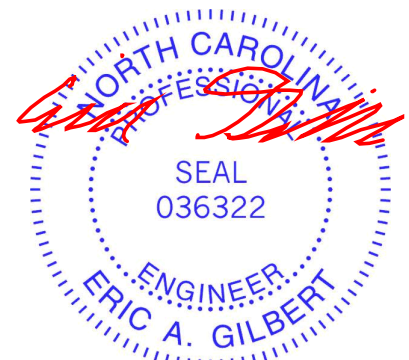
| LOADING (psf) | SPACING- | CSI. | DEFL. | PLATES | GRIP |
|---------------|----------------------|-----------|-------------------------------|----------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.64 | in (loc) l/defl L/d | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.00 | BC 0.62 | Vert(LL) -0.43 13-15 >842 240 | MT18HS | 244/190 |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.97 | Vert(CT) -0.68 13-15 >531 180 | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-MS | Horz(CT) 0.01 12 n/a n/a | | |
| | Code IRC2018/TPI2014 | | Attic -0.30 13-15 742 360 | Weight: 308 lb | FT = 20% |

| LUMBER- | BRACING- |
|---|--|
| TOP CHORD 2x6 SP DSS *Except* 5-7: 2x6 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 4-7-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7. |
| BOT CHORD 2x12 SP DSS | BOT CHORD Rigid ceiling directly applied or 6-3-8 oc bracing. |
| WEBS 2x4 SP No.2 | WEBS 1 Row at midpt 4-18, 8-18 |
| | JOINTS 1 Brace at Jt(s): 18 |

REACTIONS. (size) 16=0-3-8, 12=0-3-8
Max Horz 16=281(LC 10)
Max Grav 16=2048(LC 18), 12=2048(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2338/0, 3-4=-1430/26, 4-5=-733/197, 5-6=-449/524, 6-7=-449/524, 7-8=-733/197, 8-9=-1430/26, 9-10=-2337/0, 2-16=-2336/0, 10-12=-2336/0
BOT CHORD 15-16=-229/332, 13-15=0/1532
WEBS 3-15=0/1196, 4-17=-1875/0, 17-18=-1857/0, 18-19=-1857/0, 8-19=-1875/0, 9-13=0/1196, 2-15=0/1497, 10-13=0/1498

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-9-10 to 2-2-11, Interior(1) 2-2-11 to 9-4-0, Exterior(2R) 9-4-0 to 13-7-5, Interior(1) 13-7-5 to 20-11-0, Exterior(2R) 20-11-0 to 25-2-5, Interior(1) 25-2-5 to 31-0-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Ceiling dead load (5.0 psf) on member(s). 3-4, 8-9, 4-17, 17-18, 18-19, 8-19; Wall dead load (5.0psf) on member(s).3-15, 9-13
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Attic room checked for L/360 deflection.



August 3, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|---------------|-------|------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688777 |
| 110 Maplewood | A04 | GABLE | 1 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:36 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-xG3YjZ2UWumKqmyd4Qg3xMMcylgWGgay1ldFJFysX1b
 0-11-0 9-6-8 19-1-0 20-0-0
 0-11-0 9-6-8 9-6-8 0-11-0

3x4 =

Scale = 1:74.9

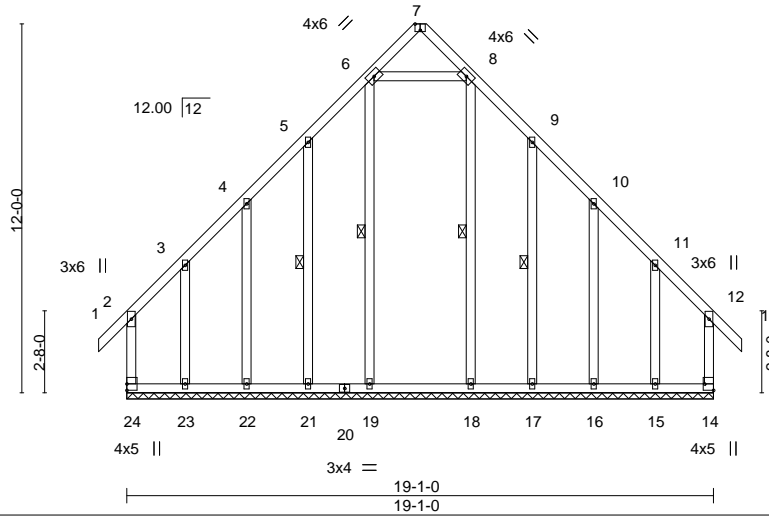


Plate Offsets (X,Y)-- [7:0-2-0,Edge], [14:Edge,0-3-8]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.32 | Vert(LL) | -0.00 | 13 | n/r | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.00 | BC 0.20 | Vert(CT) | -0.00 | 13 | n/r | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.10 | Horz(CT) | -0.00 | 14 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | | | | | Weight: 167 lb | FT = 20% |
| | Code IRC2018/TPI2014 | | | | | | | |

| LUMBER- | BRACING- |
|-----------------------|---|
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD 2x4 SP No.1 | BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. |
| WEBS 2x4 SP No.2 | WEBS 1 Row at midpt 6-19, 5-21, 8-18, 9-17 |
| OTHERS 2x4 SP No.2 | |

REACTIONS. All bearings 19-1-0.
 (lb) - Max Horz 24=289(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 21, 22, 17, 16 except 24=226(LC 10), 14=218(LC 11), 23=217(LC 11), 15=211(LC 10)
 Max Grav All reactions 250 lb or less at joint(s) 21, 22, 17, 16 except 24=346(LC 18), 14=340(LC 17), 19=284(LC 17), 23=384(LC 17), 18=281(LC 18), 15=380(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 4-5=-143/330, 5-6=-190/422, 8-9=-191/422, 9-10=-142/329
 WEBS 6-8=-136/356

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 1-10-12, Exterior(2N) 1-10-12 to 9-6-8, Corner(3R) 9-6-8 to 12-6-8, Exterior(2N) 12-6-8 to 20-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 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) 21, 22, 17, 16 except (jt=lb) 24=226, 14=218, 23=217, 15=211.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 3, 2020

| | | | | | | |
|---------------|-------|---------------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688778 |
| 110 Maplewood | A05 | MONOPITCH SUPPORTED | 1 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:37 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-PSdxxv36HCuBSwXpe8BITavjCi_5?8S5FyNorhysX1a



Scale = 1:26.8

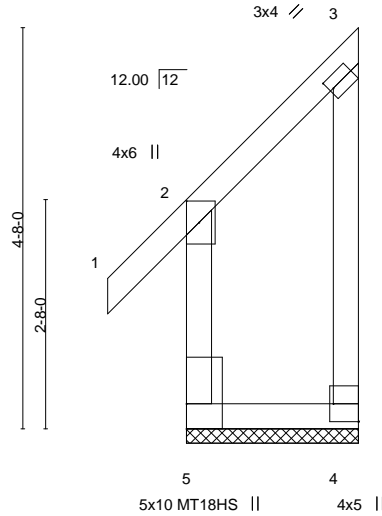


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12], [3:0-0-9,0-1-8], [4:Edge,0-3-8]

| LOADING (psf) | SPACING- | 2-0-0 | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|-----------------|-----------------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 20.0 | Plate Grip DOL | 1.00 | TC 0.61 | Vert(LL) | -0.00 | 2 | n/r | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL | 1.15 | BC 0.37 | Vert(CT) | -0.00 | 1 | n/r | MT18HS | 244/190 |
| BCLL 0.0 * | Rep Stress Incr | YES | WB 0.00 | Horz(CT) | -0.00 | 4 | n/a | | |
| BCDL 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | Weight: 19 lb | FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 WEBS 2x4 SP No.2

BRACING-

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

REACTIONS.

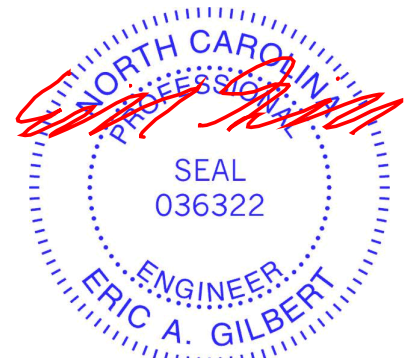
(size) 5=2-0-0, 4=2-0-0
 Max Horz 5=144(LC 9)
 Max Uplift 5=62(LC 8), 4=172(LC 9)
 Max Grav 5=242(LC 18), 4=158(LC 10)

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

TOP CHORD 3-4=209/321

NOTES-

- 1) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 4=172.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 3, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



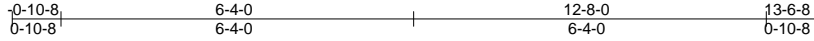
818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|---------------|-------|----------------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688779 |
| 110 Maplewood | B01 | COMMON SUPPORTED GAB | 1 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:39 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-LrhMb5Npp8vhEhClZDmY?_9vWjvT1oOjGswaysX1Y



3x4 =

Scale = 1:41.4

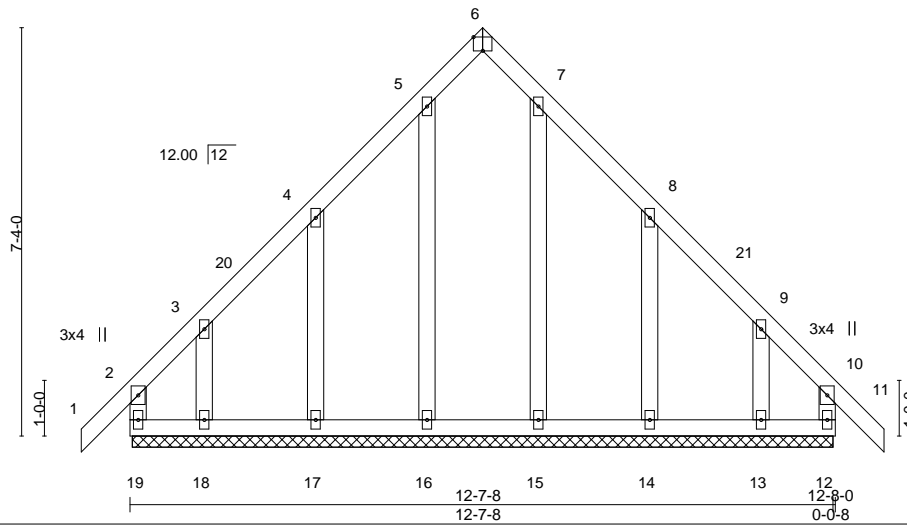


Plate Offsets (X,Y)-- [6:0-2-0,Edge]

| LOADING (psf) | SPACING- | CS.I. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.00 | TC 0.15 | Vert(LL) -0.00 | 11 | n/r | 120 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.09 | Vert(CT) -0.00 | 11 | n/r | 120 | | |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.07 | Horz(CT) 0.00 | 12 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2018/TPI2014 | Matrix-R | | | | | Weight: 85 lb | FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 WEBS 2x4 SP No.2
 OTHERS 2x4 SP No.2

BRACING-

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

REACTIONS.

All bearings 12-7-0.
 (lb) - Max Horz 19=173(LC 11)
 Max Uplift All uplift 100 lb or less at joint(s) 19, 12, 17, 14 except 18=113(LC 12), 13=113(LC 12)
 Max Grav All reactions 250 lb or less at joint(s) 19, 12, 16, 17, 18, 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 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 6-4-0, Corner(3R) 6-4-0 to 9-4-0, Exterior(2N) 9-4-0 to 13-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 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) 19, 12, 17, 14 except (jt=lb) 18=113, 13=113.
- Non Standard bearing condition. Review required.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 3, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|---------------|-------|------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688780 |
| 110 Maplewood | B02 | COMMON | 1 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:40 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-p1J3Zx5?a7GmJOGOJGk?5CXHMv0nCUvXxbSS0ysX1X



4x5 =

Scale = 1:45.3

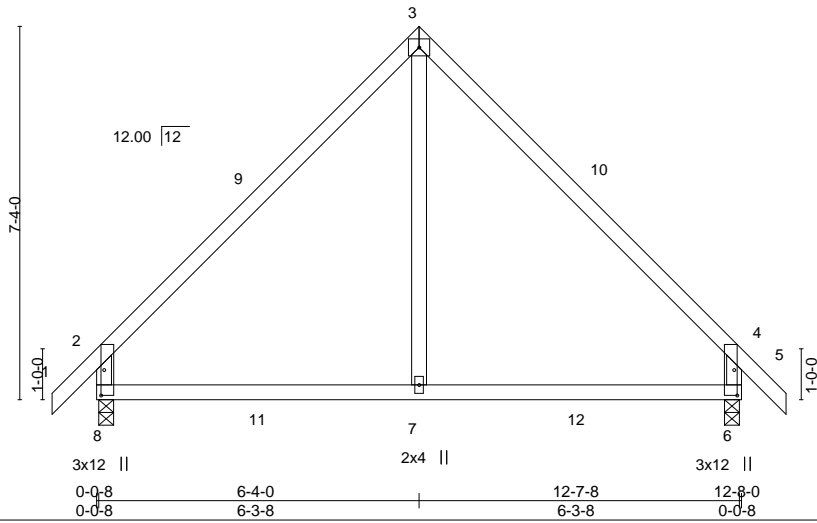


Plate Offsets (X,Y)-- [2:0-1-12,0-1-12], [4:0-1-12,0-1-12], [6:0-6-0,0-0-12], [6:0-0-0,0-1-12], [8:0-0-0,0-1-12], [8:0-6-0,0-0-12]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.00 | TC 0.36 | Vert(LL) -0.04 | 6-7 | >999 | 240 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.31 | Vert(CT) -0.07 | 6-7 | >999 | 180 | | |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.08 | Horz(CT) 0.01 | 6 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2018/TPI2014 | Matrix-MR | | | | | Weight: 62 lb | FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 WEBS 2x4 SP No.2

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 6=0-3-8
 Max Horz 8=173(LC 11)
 Max Uplift 8=-45(LC 12), 6=-45(LC 12)
 Max Grav 8=629(LC 17), 6=629(LC 18)

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

TOP CHORD 2-3=-579/132, 3-4=-579/132, 2-8=-532/177, 4-6=-532/177
 BOT CHORD 7-8=0/360, 6-7=0/360
 WEBS 3-7=0/371

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-4-0, Exterior(2R) 6-4-0 to 9-4-0, Interior(1) 9-4-0 to 13-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 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) 8, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 3, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|---------------|-------|------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688782 |
| 110 Maplewood | B04 | COMMON | 2 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:42 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-mQRp_d7F6kWUYhPmQhnTAdcbFjdugNiqPE4ZXvysX1V

-0-10-8 4-6-12 8-10-0 13-1-4 17-8-0 18-6-8
 0-10-8 4-6-12 4-3-4 4-3-4 4-6-12 0-10-8

4x5 =

Scale = 1:60.7

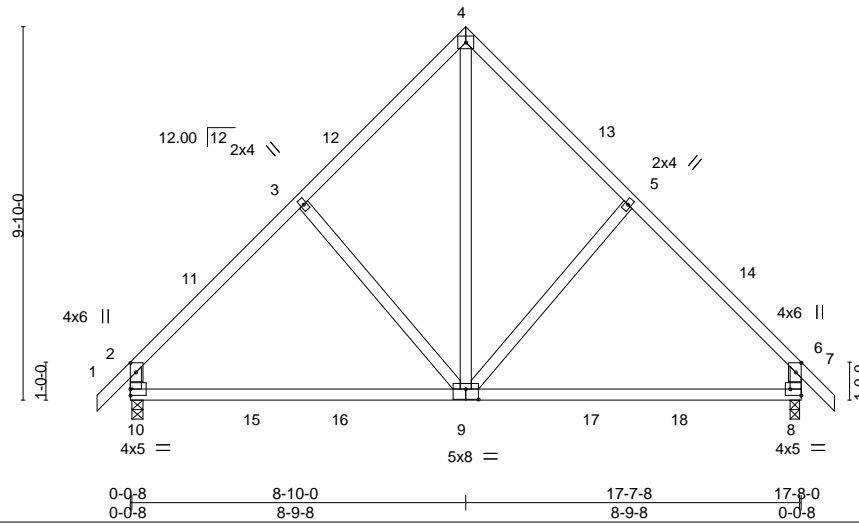


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12], [6:0-3-0,0-1-12], [8:Edge,0-2-0], [9:0-4-0,0-3-4]

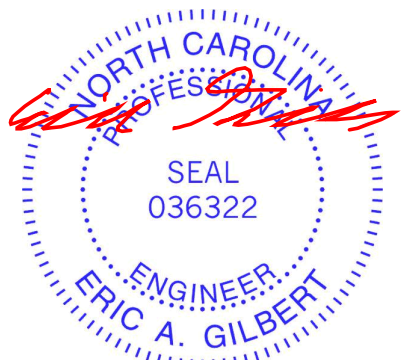
| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-----------|----------------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.00 | TC 0.46 | Vert(LL) -0.14 | 9-10 | >999 | 240 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.59 | Vert(CT) -0.24 | 9-10 | >858 | 180 | | |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.19 | Horz(CT) 0.01 | 8 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2018/TPI2014 | Matrix-MS | | | | | Weight: 102 lb | FT = 20% |

| LUMBER- | BRACING- |
|-----------------------|---|
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD 2x4 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS 2x4 SP No.2 | |

REACTIONS. (size) 10=0-3-8, 8=0-3-0
 Max Horz 10=225(LC 11)
 Max Uplift 10=-52(LC 12), 8=-52(LC 12)
 Max Grav 10=832(LC 17), 8=832(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-796/108, 3-4=-633/157, 4-5=-633/157, 5-6=-796/108, 2-10=-675/125, 6-8=-675/125
 BOT CHORD 9-10=-16/593, 8-9=0/511
 WEBS 4-9=-122/554

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCLL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-10-0, Exterior(2R) 8-10-0 to 11-10-0, Interior(1) 11-10-0 to 18-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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 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.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 8.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



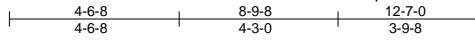
August 3, 2020

| | | | | | | |
|---------------|-------|---------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688783 |
| 110 Maplewood | B05 | COMMON GIRDER | 1 | 2 | Job Reference (optional) | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:44 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-ipYaP18VdLmCn?Z9Y6pxF2hr8XH289N7sYZgbnysX1T



6x10 ||

Scale = 1:61.6

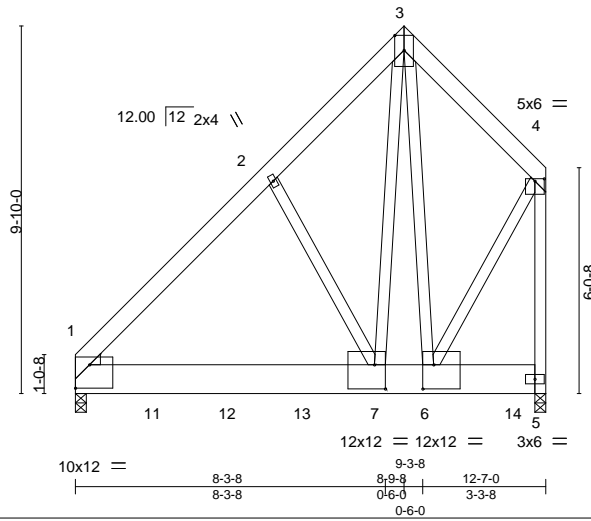


Plate Offsets (X,Y)-- [1:0-2-4,0-2-4], [1:0-6-14,0-4-8], [1:Edge,0-7-8], [4:0-3-0,0-0-12], [6:0-3-8,0-7-12], [7:0-3-8,0-7-12]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-----------|----------|----------|--------|------|----------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.88 | Vert(LL) | -0.11 | 7-10 | >999 | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.00 | BC 0.74 | Vert(CT) | -0.21 | 7-10 | >717 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.69 | Horz(CT) | 0.02 | 1 | n/a | | |
| BCDL 10.0 | Rep Stress Incr NO | Matrix-MS | | | | | Weight: 286 lb | FT = 20% |
| | Code IRC2018/TPI2014 | | | | | | | |

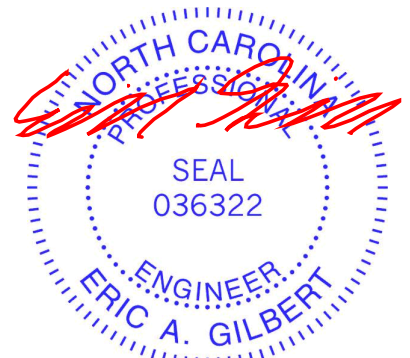
| LUMBER- | BRACING- |
|-----------------------|---|
| TOP CHORD 2x6 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD 2x10 SP DSS | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS 2x4 SP No.2 | |
| WEDGE | |
| Left: 2x4 SP No.2 | |

REACTIONS. (size) 1=0-3-8, 5=0-3-8
 Max Horz 1=250(LC 26)
 Max Grav 1=5880(LC 2), 5=7225(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-4063/0, 2-3=-4023/0, 3-4=-3321/0, 4-5=-6598/0
 BOT CHORD 1-7=0/2955, 6-7=0/2349
 WEBS 3-6=-664/0, 3-7=0/5645, 4-6=0/4782, 2-7=-456/66

- 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, 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x10 - 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 7-16; Vult=125mph (3-second gust) Vasd=99mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; 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 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.
 - Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2005 lb down at 2-0-12, 1996 lb down at 4-0-12, 1998 lb down at 6-0-12, 2005 lb down at 8-0-12, and 2005 lb down at 9-5-8, and 2009 lb down at 11-8-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



August 3, 2020

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|---------------|-------|---------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688783 |
| 110 Maplewood | B05 | COMMON GIRDER | 1 | 2 | Job Reference (optional) | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:44 2020 Page 2
 ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-ipYaPI8VdLmCn?Z9Y6pxF2hr8XH289N7sYZgbnysX1T

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
 - Uniform Loads (plf)
 - Vert: 1-3=-60, 3-4=-60, 5-8=-20
 - Concentrated Loads (lb)
 - Vert: 6=-1632(F) 7=-1632(F) 11=-1632(F) 12=-1632(F) 13=-1632(F) 14=-1635(F)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|---------------|-------|---------------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688784 |
| 110 Maplewood | C01 | HIP SUPPORTED GABLE | 1 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:46 2020 Page 1
 ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-eBgKq_Am9z1w1JyYfXrPKTnOXK7EcAUQKs2nggysX1R
 0-10-8 14-6-0 22-6-0 37-0-0
 0-10-8 14-6-0 8-0-0 14-6-0

Scale = 1:70.0

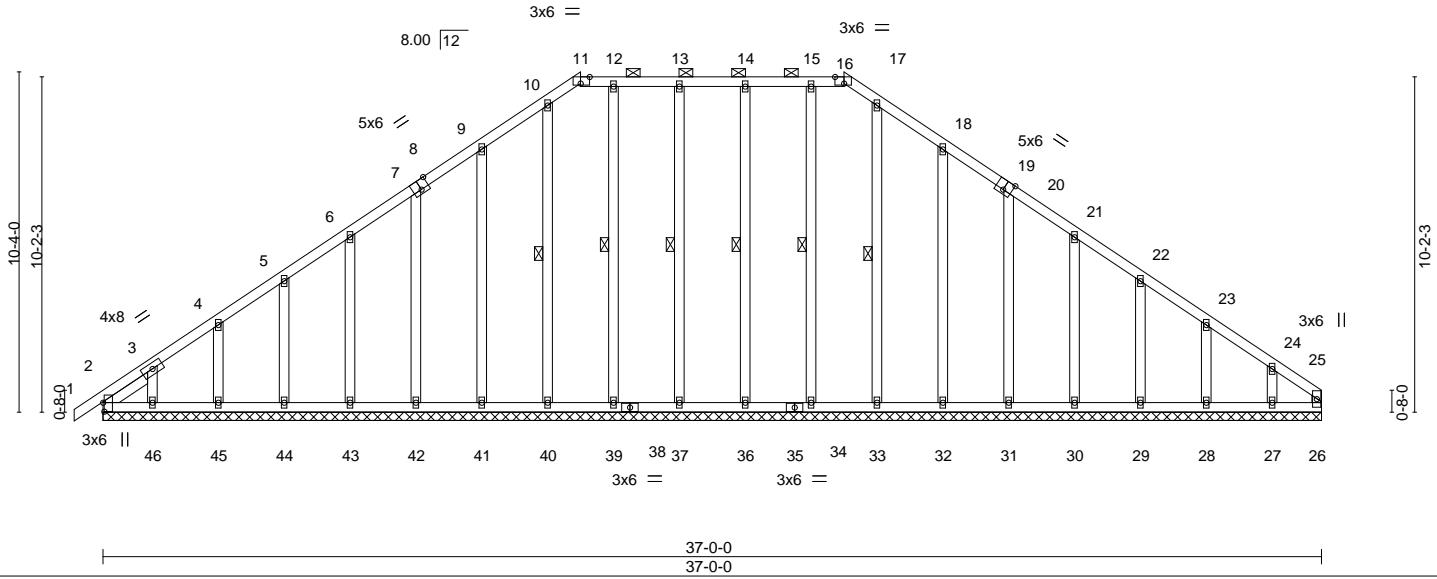


Plate Offsets (X,Y)-- [2:0-3-4,0-0-7], [7:0-2-2,0-0-0], [8:0-3-0,Edge], [8:0-0-0,0-1-12], [11:0-3-5,Edge], [16:0-3-5,Edge], [19:0-0-0,0-1-12], [19:0-3-0,Edge], [20:0-2-2,0-0-0]

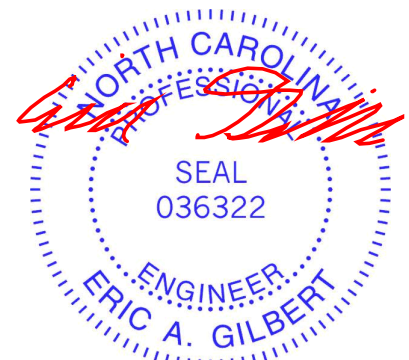
| LOADING (psf) | SPACING- | 2-0-0 | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL | 1.00 | TC 0.06 | Vert(LL) | -0.00 | 1 | n/r | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL | 1.15 | BC 0.05 | Vert(CT) | -0.00 | 1 | n/r | | |
| BCLL 0.0 * | Rep Stress Incr | YES | WB 0.14 | Horz(CT) | 0.01 | 26 | n/a | | |
| BCDL 10.0 | Code IRC2018/TPI2014 | | Matrix-S | | | | | Weight: 287 lb | FT = 20% |

| LUMBER- | BRACING- |
|-----------------------------------|---|
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 11-16. |
| BOT CHORD 2x4 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS 2x4 SP No.2 | WEBS 1 Row at midpt 13-37, 12-39, 10-40, 14-36, 15-34, 17-33 |
| OTHERS 2x4 SP No.2 | |
| SLIDER Left 2x4 SP No.2 -x 1-7-11 | |

REACTIONS. All bearings 37-0-0.
 (lb) - Max Horz 2=203(LC 11)
 Max Uplift All uplift 100 lb or less at joint(s) 26, 2, 37, 41, 42, 43, 44, 45, 46, 36, 32, 31, 30, 29, 28, 27
 Max Grav All reactions 250 lb or less at joint(s) 26, 2, 37, 39, 40, 41, 42, 43, 44, 45, 46, 36, 34, 33, 32, 31, 30, 29, 28, 27

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=37ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-9-14, Exterior(2N) 2-9-14 to 14-6-0, Corner(3R) 14-6-0 to 18-2-6, Exterior(2N) 18-2-6 to 22-6-0, Corner(3R) 22-6-0 to 26-2-6, Exterior(2N) 26-2-6 to 36-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Provide adequate drainage to prevent water ponding.
 - 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) 26, 2, 37, 41, 42, 43, 44, 45, 46, 36, 32, 31, 30, 29, 28, 27.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



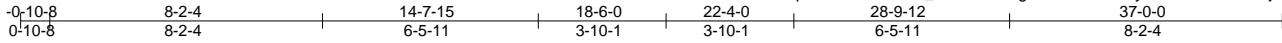
August 3, 2020

| | | | | | | |
|---------------|-------|------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688785 |
| 110 Maplewood | C02 | ROOF TRUSS | 6 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:48 2020 Page 1

ID:LEZ9SRaPhqKQ8Z08kTcsSfz_sw7-ao5EgB0haHdGctwnyttQusWN8eW42tjnAXtkYysX1P



Scale = 1:69.2

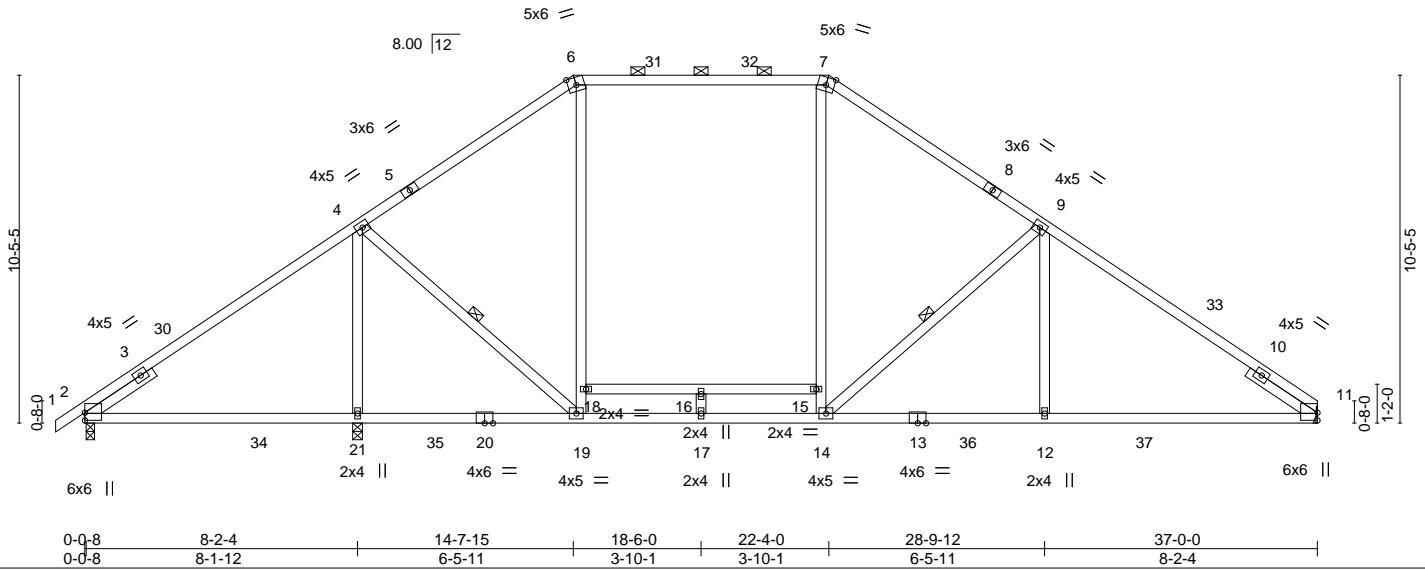


Plate Offsets (X,Y)-- [6:0-3-0,Edge], [7:0-3-0,Edge]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-----------|----------------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.00 | TC 0.93 | Vert(LL) -0.32 | 12-14 | >999 | 240 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.77 | Vert(CT) -0.52 | 12-14 | >671 | 180 | | |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.28 | Horz(CT) 0.08 | 11 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2018/TPI2014 | Matrix-MS | Attic -0.19 | 15-18 | 446 | 360 | | |
| | | | | | | | Weight: 211 lb | FT = 20% |

| LUMBER- | BRACING- |
|--|--|
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 3-3-1 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 6-7. |
| BOT CHORD 2x4 SP No.1 *Except* 13-20: 2x4 SP DSS | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS 2x4 SP No.2 | WEBS 1 Row at midpt 4-19, 9-14 |
| SLIDER Left 2x4 SP No.2 -x 2-5-3, Right 2x4 SP No.2 -x 2-5-3 | |

REACTIONS. (size) 2=0-3-0, 21=0-3-8, 11=Mechanical
 Max Horz 2=200(LC 11)
 Max Uplift 2=-37(LC 12), 21=-276(LC 25)
 Max Grav 2=1904(LC 19), 21=624(LC 24), 11=1930(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-2734/107, 4-6=-2255/88, 6-7=-1811/101, 7-9=-2240/83, 9-11=-2790/34
 BOT CHORD 2-21=0/2078, 19-21=0/2078, 17-19=0/1704, 14-17=0/1704, 12-14=0/2232, 11-12=0/2232
 WEBS 4-21=-470/422, 4-19=-480/147, 18-19=0/721, 6-18=0/844, 14-15=0/697, 7-15=0/847,
 9-14=-683/122, 9-12=0/377

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-9-14, Interior(1) 2-9-14 to 14-8-8, Exterior(2R) 14-8-8 to 19-11-5, Interior(1) 19-11-5 to 22-3-8, Exterior(2R) 22-3-8 to 27-6-5, Interior(1) 27-6-5 to 37-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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, with BCDL = 10.0psf.
 - Bottom chord live load (20.0 psf) and additional bottom chord dead load (3.0 psf) applied only to room. 16-18, 15-16
 - 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) 2 except (jt=lb) 21=276.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



August 3, 2020

| | | | | | | |
|---------------|-------|----------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688786 |
| 110 Maplewood | C03 | PIGGYBACK BASE | 4 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:50 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-XywrMDGDBXLVw1JuMwLVJxtXxKXYv7?FU0_pRysX1N

| | | | | | | |
|---------|--------|---------|--------|--------|--------|---------|
| -0-10-8 | 7-5-12 | 14-7-15 | 22-4-0 | 29-6-4 | 37-0-0 | 37-10-8 |
| 0-10-8 | 7-5-12 | 7-2-4 | 7-8-1 | 7-2-4 | 7-5-12 | 0-10-8 |

Scale = 1:69.3

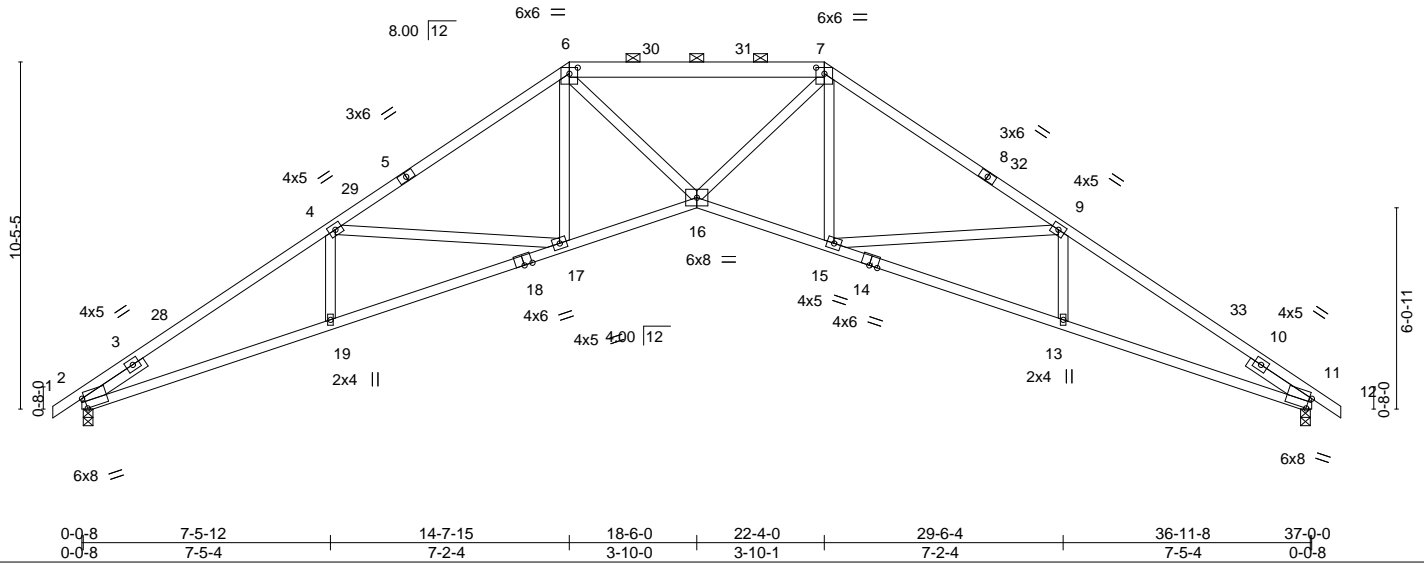


Plate Offsets (X,Y)-- [2:0-0-14,0-3-15], [6:0-3-0,0-2-3], [7:0-3-0,0-2-3], [11:0-0-14,0-3-15]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-----------|----------------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.00 | TC 0.89 | Vert(LL) -0.30 | 16 | >999 | 240 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.73 | Vert(CT) -0.63 | 17-19 | >705 | 180 | | |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.48 | Horz(CT) 0.57 | 11 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2018/TPI2014 | Matrix-MS | | | | | Weight: 198 lb | FT = 20% |

LUMBER-

TOP CHORD 2x4 SP DSS *Except*
6-7: 2x6 SP No.1
BOT CHORD 2x4 SP DSS *Except*
16-18,14-16: 2x4 SP No.1
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -x 2-3-4, Right 2x4 SP No.2 -x 2-3-4

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-11-3 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 11=0-3-8
Max Horz 2=203(LC 11)
Max Uplift 2=-74(LC 12), 11=-74(LC 12)
Max Grav 2=1533(LC 1), 11=1533(LC 1)

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

TOP CHORD 2-4=-3733/101, 4-6=-3134/55, 6-7=-3299/9, 7-9=-3134/55, 9-11=-3733/101
BOT CHORD 2-19=0/3162, 17-19=0/3194, 16-17=0/2638, 15-16=0/2638, 13-15=0/3194, 11-13=0/3162
WEBS 4-17=-538/175, 6-17=0/433, 6-16=0/1159, 7-16=0/1163, 7-15=0/432, 9-15=-556/175

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-9-14, Interior(1) 2-9-14 to 14-7-15, Exterior(2R) 14-7-15 to 19-10-12, Interior(1) 19-10-12 to 22-4-0, Exterior(2R) 22-4-0 to 27-6-13, Interior(1) 27-6-13 to 37-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Bearing at joint(s) 2, 11 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) 2, 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 3, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|---------------|--------|----------------|-----|----------|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688789 |
| 110 Maplewood | C04ALT | PIGGYBACK BASE | 0 | 2 | Job Reference (optional) | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:56 2020 Page 2
 ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-L6H6wP1p1HVErUTFd1IkaB_ZMOyggudPUI05ysX1H

NOTES-

11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|---------------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688790 |
| 110 Maplewood | C06 | ROOF SPECIAL | 1 | 2 | Job Reference (optional) | |

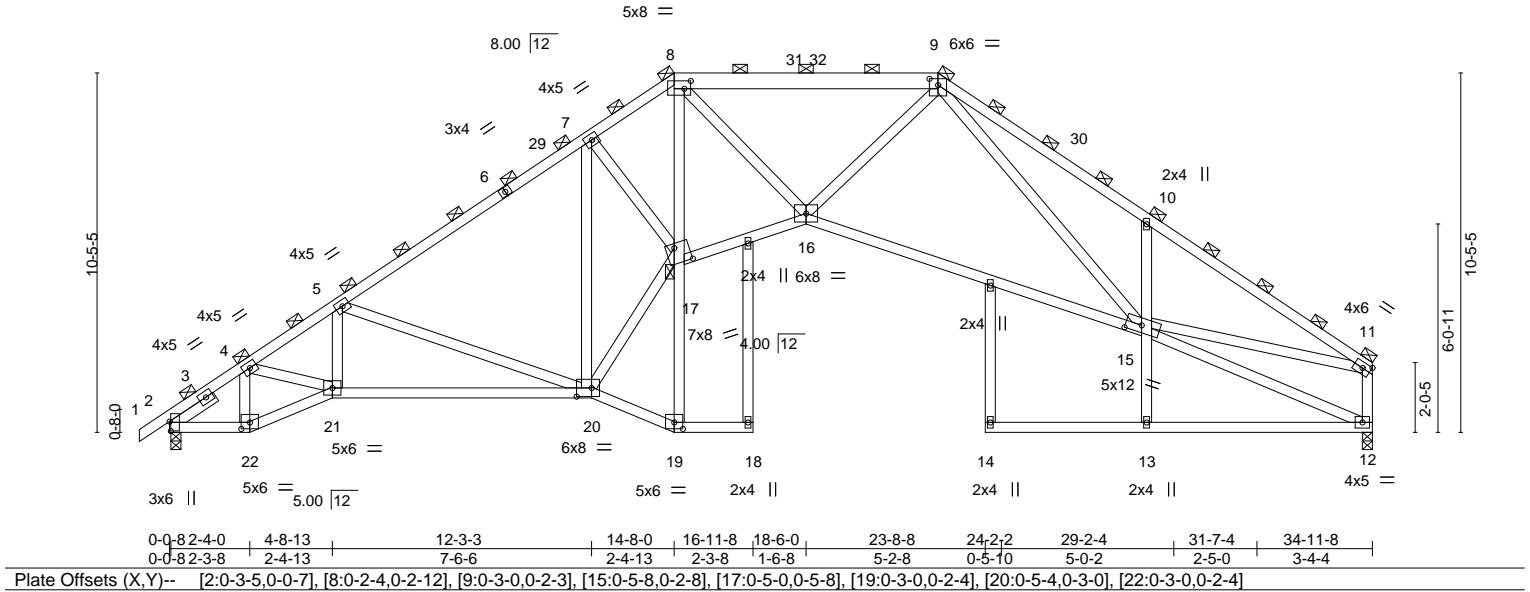
Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 13:59:58 2020 Page 1

ID:LEZ9SRaPhqKQ8Z08kTcsSfz_sw7-IV0iL5JHKfXDT9erM23Dq?GLCA0LQUHB4jzP5zysX1F

| | | | | | | | | | | | |
|--------|-------|--------|--------|--------|---------|--------|--------|--------|--------|--------|---------|
| 0-10-8 | 2-4-0 | 4-8-13 | 12-3-3 | 14-8-0 | 16-11-8 | 18-6-0 | 22-4-0 | 23-8-8 | 29-2-4 | 31-7-4 | 34-11-8 |
| 0-10-8 | 2-4-0 | 2-4-13 | 7-6-6 | 2-4-13 | 2-3-8 | 1-6-8 | 3-10-0 | 1-4-8 | 5-5-12 | 2-5-0 | 3-4-4 |

Scale = 1:67.0



| LOADING (psf) | SPACING- | CSI. | DEFL. | PLATES | GRIP |
|---------------|----------------------|-----------|----------------------------|----------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.00 | TC 0.40 | Vert(LL) -0.47 14 >881 240 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.86 | Vert(CT) -1.04 14 >403 180 | | |
| BCLL 0.0 * | Rep Stress Incr NO | WB 0.66 | Horz(CT) 0.31 12 n/a n/a | | |
| BCDL 10.0 | Code IRC2018/TPI2014 | Matrix-MS | | Weight: 534 lb | FT = 20% |

| LUMBER- | BRACING- |
|--|---|
| TOP CHORD 2x4 SP No.1 *Except* 9-11: 2x4 SP DSS, 8-9: 2x6 SP No.1 | TOP CHORD 2-0-0 oc purlins (5-11-6 max.), except end verticals (Switched from sheeted: Spacing > 2-8-0). Rigid ceiling directly applied or 10-0-0 oc bracing. |
| BOT CHORD 2x4 SP No.1 | BOT CHORD |
| WEBS 2x4 SP No.2 | JOINTS 1 Brace at Jt(s): 8, 9, 11, 17 |
| SLIDER Left 2x4 SP No.2 -x 1-6-7 | |

REACTIONS. (size) 2=0-3-8, 12=0-3-8
 Max Horz 2=337(LC 11)
 Max Uplift 2=65(LC 12)
 Max Grav 2=2238(LC 1), 12=2219(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-2993/87, 4-5=-4374/177, 5-7=-3034/179, 7-8=-4603/207, 9-10=-4640/242,
 10-11=-4637/41, 11-12=-2198/76, 8-9=-4638/90
 BOT CHORD 2-22=-135/2329, 21-22=-141/2463, 20-21=-192/3634, 16-17=0/3917, 15-16=0/3564
 WEBS 4-22=-1024/58, 4-21=-60/1500, 5-21=0/765, 5-20=-1362/193, 7-20=-3160/40,
 8-17=-118/1245, 8-16=0/1245, 13-15=0/576, 10-15=-612/284, 17-20=-20/4407,
 7-17=0/2245, 9-16=0/1901, 9-15=-138/798, 11-15=0/3676

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x4 - 1 row 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 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCCLD=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-7-7, Interior(1) 2-7-7 to 14-8-0, Exterior(2R) 14-8-0 to 18-1-15, Interior(1) 18-1-15 to 22-4-0, Exterior(2R) 22-4-0 to 25-9-15, Interior(1) 25-9-15 to 34-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

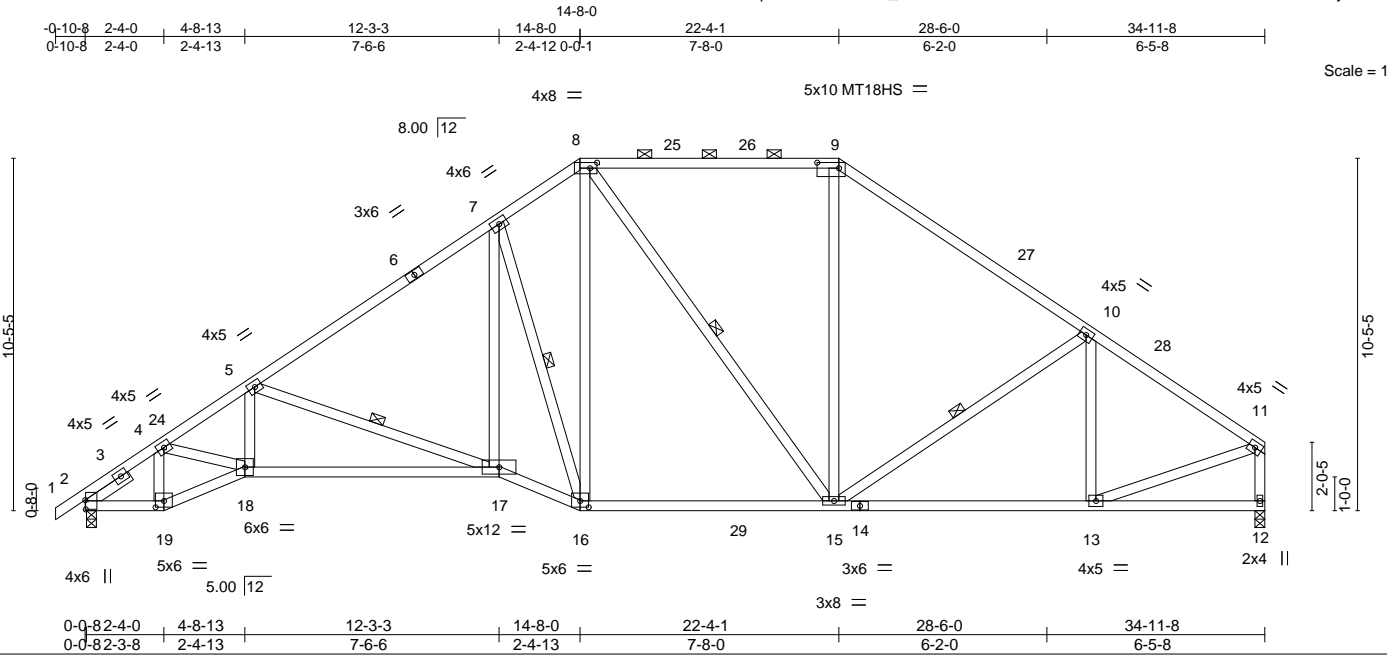
ENGINEERING BY
TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|---------------|-------|----------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688791 |
| 110 Maplewood | C07 | PIGGYBACK BASE | 4 | 1 | Job Reference (optional) | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:00:00 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-EuWdmnLYsGnwiSoEUT5hvQMb1zkQuRDUY1SW9sysX1D



| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.00 | TC 0.82 | Vert(LL) | -0.19 17-18 | >999 | 240 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.76 | Vert(CT) | -0.39 17-18 | >999 | 180 | MT18HS | 244/190 |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.51 | Horz(CT) | 0.12 12 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2018/TPI2014 | Matrix-MS | | | | | Weight: 239 lb | FT = 20% |

| LUMBER- | BRACING- |
|----------------------------------|---|
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 3-4-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-0 max.): 8-9. |
| BOT CHORD 2x4 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS 2x4 SP No.2 | WEBS 1 Row at midpt 5-17, 7-16, 8-15, 10-15 |
| SLIDER Left 2x4 SP No.2 -x 1-6-7 | |

REACTIONS. (size) 2=0-3-8, 12=0-3-8
 Max Horz 2=225(LC 11)
 Max Uplift 2=71(LC 12), 12=46(LC 12)
 Max Grav 2=1620(LC 17), 12=1553(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-2178/73, 4-5=-3232/112, 5-7=-2145/134, 7-8=-1670/205, 8-9=-1281/170,
 9-10=-1622/154, 10-11=-1689/95, 11-12=-1481/69
 BOT CHORD 2-19=-49/1829, 18-19=-51/1946, 17-18=-75/2806, 16-17=-22/1985, 15-16=0/1412,
 13-15=-10/1349
 WEBS 4-19=-781/22, 4-18=-25/1127, 5-18=0/615, 5-17=-1070/113, 7-17=0/1275,
 7-16=-1417/107, 9-15=0/483, 10-13=-302/84, 11-13=-11/1388, 8-16=-63/813

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-7-7, Interior(1) 2-7-7 to 14-8-0, Exterior(2R) 14-8-0 to 19-7-5, Interior(1) 19-7-5 to 22-4-1, Exterior(2R) 22-4-1 to 27-3-6, Interior(1) 27-3-6 to 34-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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, 12.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 3, 2020

| | | | | | | |
|---------------|-------|----------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688792 |
| 110 Maplewood | C08 | PIGGYBACK BASE | 1 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:00:02 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-AGeNBSMoOt2eymxdbu89_rRxlInSeMNNn?LxdEkysX1B



Scale = 1:68.6

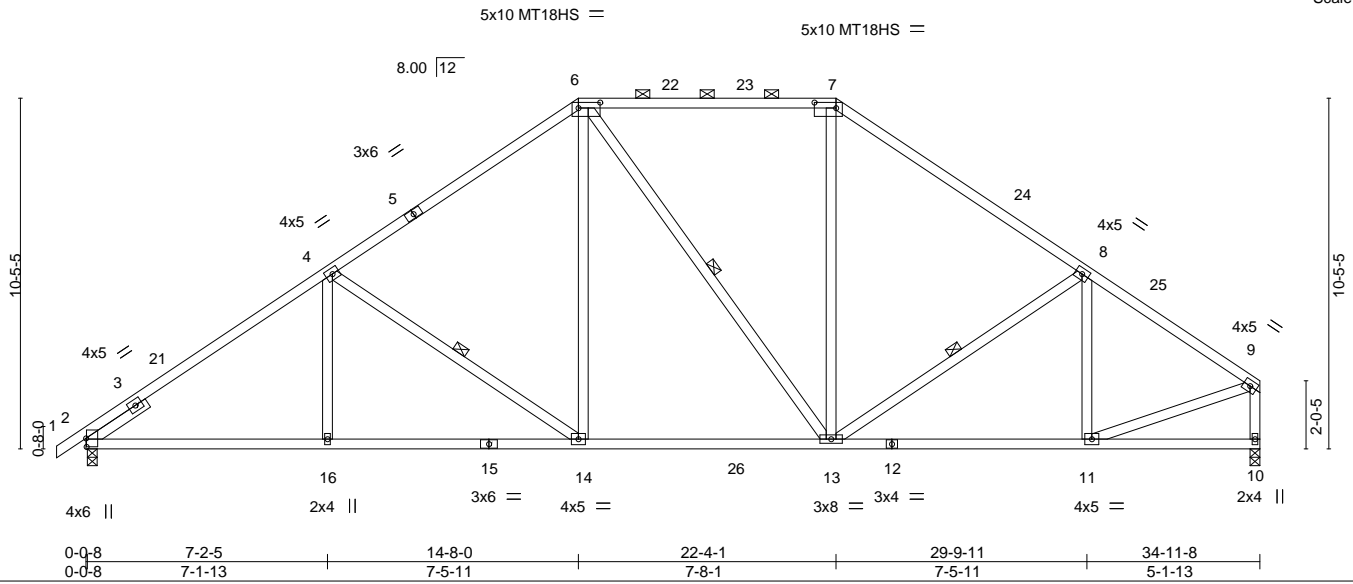


Plate Offsets (X,Y)-- [2:0-3-1,0-0-3], [6:0-7-12,0-2-0], [7:0-7-12,0-2-0]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.00 | TC 0.81 | Vert(LL) | -0.13 13-14 | >999 | 240 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.58 | Vert(CT) | -0.22 14-16 | >999 | 180 | MT18HS | 244/190 |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.34 | Horz(CT) | 0.06 10 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2018/TPI2014 | Matrix-MS | | | | | | |
| | | | | | | | Weight: 215 lb | FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 WEBS 2x4 SP No.2
 SLIDER Left 2x4 SP No.2 -x 2-1-9

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-7-11 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-0 max.): 6-7.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 4-14, 6-13, 8-13

REACTIONS.

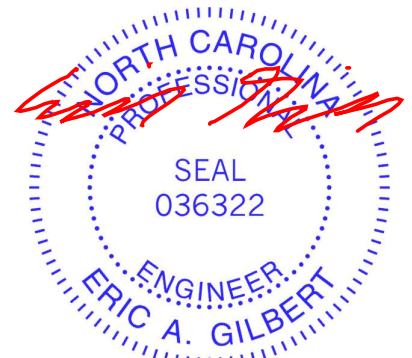
(size) 2=0-3-8, 10=0-3-8
 Max Horz 2=225(LC 11)
 Max Uplift 2=-71(LC 12), 10=-46(LC 12)
 Max Grav 2=1619(LC 17), 10=1552(LC 18)

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

TOP CHORD 2-4=-2235/108, 4-6=-1716/159, 6-7=-1276/170, 7-8=-1616/155, 8-9=-1691/95, 9-10=-1483/68
 BOT CHORD 2-16=-46/1926, 14-16=-46/1926, 13-14=0/1428, 11-13=-10/1351
 WEBS 4-16=0/280, 4-14=-612/118, 6-14=0/663, 7-13=0/488, 8-11=-298/87, 9-11=-10/1391

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-10-8 to 2-7-7, Interior(1) 2-7-7 to 14-8-0, Exterior(2R) 14-8-0 to 19-7-5, Interior(1) 19-7-5 to 22-4-1, Exterior(2R) 22-4-1 to 27-3-6, Interior(1) 27-3-6 to 34-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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, 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 3, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



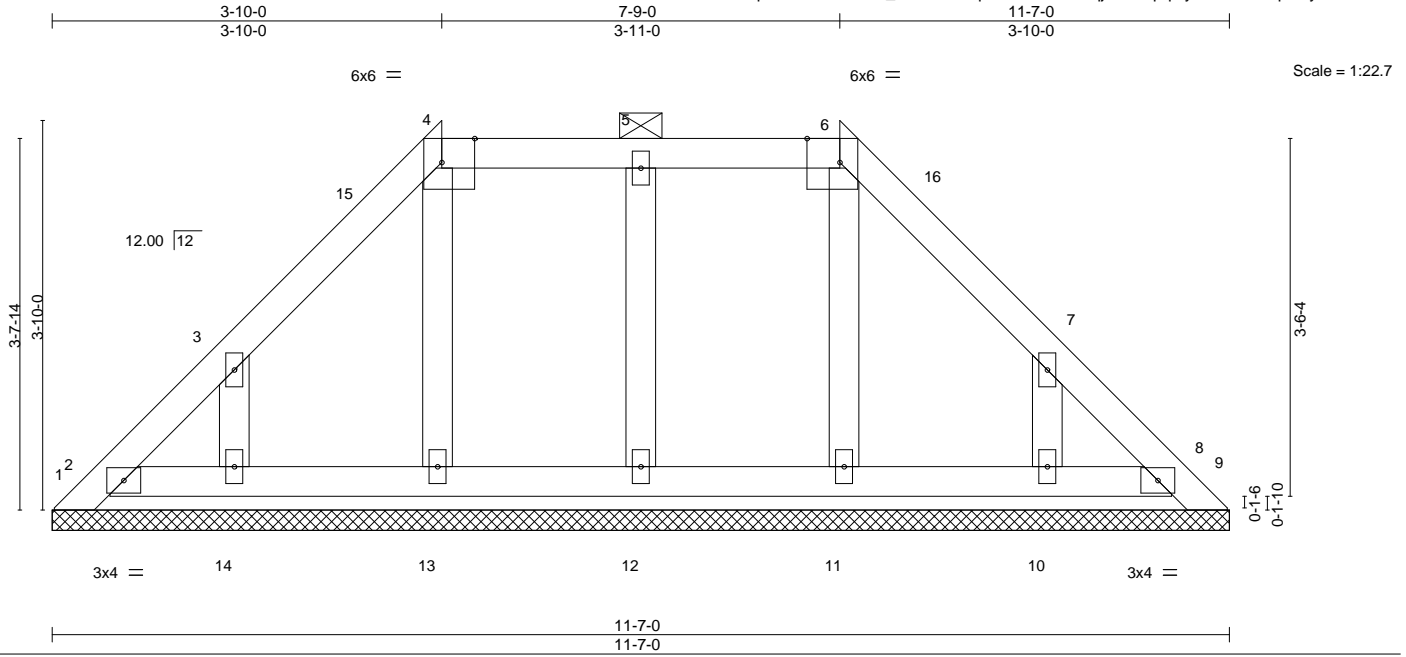
818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|---------------|-------|------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688794 |
| 110 Maplewood | P01 | GABLE | 1 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:00:06 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-31tu0qPJS6Y4QOFOqjC58hpcqOyLIFCMwzqvNWysX17



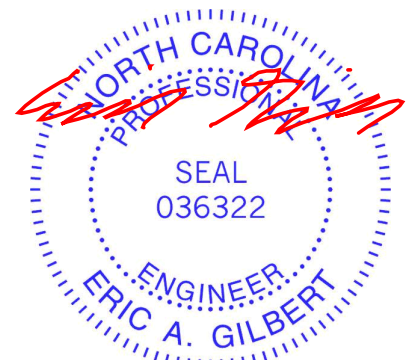
| LOADING (psf) | | SPACING- | | CSI. | | DEFL. | | PLATES | | GRIP | |
|---------------|-------|-----------------|-----------------|----------|------|----------|------|--------|---------|---------------|----------|
| TCLL | 20.0 | Plate Grip DOL | 1.00 | TC | 0.04 | Vert(LL) | n/a | MT20 | 244/190 | | |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | n/a | | | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | | | Weight: 54 lb | FT = 20% |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | |

| LUMBER- | | BRACING- | |
|-----------|-------------|-----------|--|
| TOP CHORD | 2x4 SP No.1 | TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except |
| BOT CHORD | 2x4 SP No.1 | BOT CHORD | 2-0-0 oc purlins (6-0-0 max.): 4-6. |
| OTHERS | 2x4 SP No.2 | | Rigid ceiling directly applied or 10-0-0 oc bracing. |

REACTIONS. All bearings 11-7-0.
 (lb) - Max Horz 1=74(LC 11)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 12, 14, 10
 Max Grav All reactions 250 lb or less at joint(s) 1, 9, 2, 8, 12, 13, 14, 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 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-2-10 to 3-2-10, Interior(1) 3-2-10 to 3-10-0, Exterior(2E) 3-10-0 to 11-4-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Provide adequate drainage to prevent water ponding.
 - 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) 1, 12, 14, 10.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 3, 2020

| | | | | | | |
|---------------|-------|------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688795 |
| 110 Maplewood | P02 | Piggyback | 8 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:00:08 2020 Page 1

ID:LEZ9SRaPhqKQ8Z08kTcsSfz_sw7-?Q?fRWRZ_jooghPmy8EZE6h5aCb_m8dfOHoxROysX15

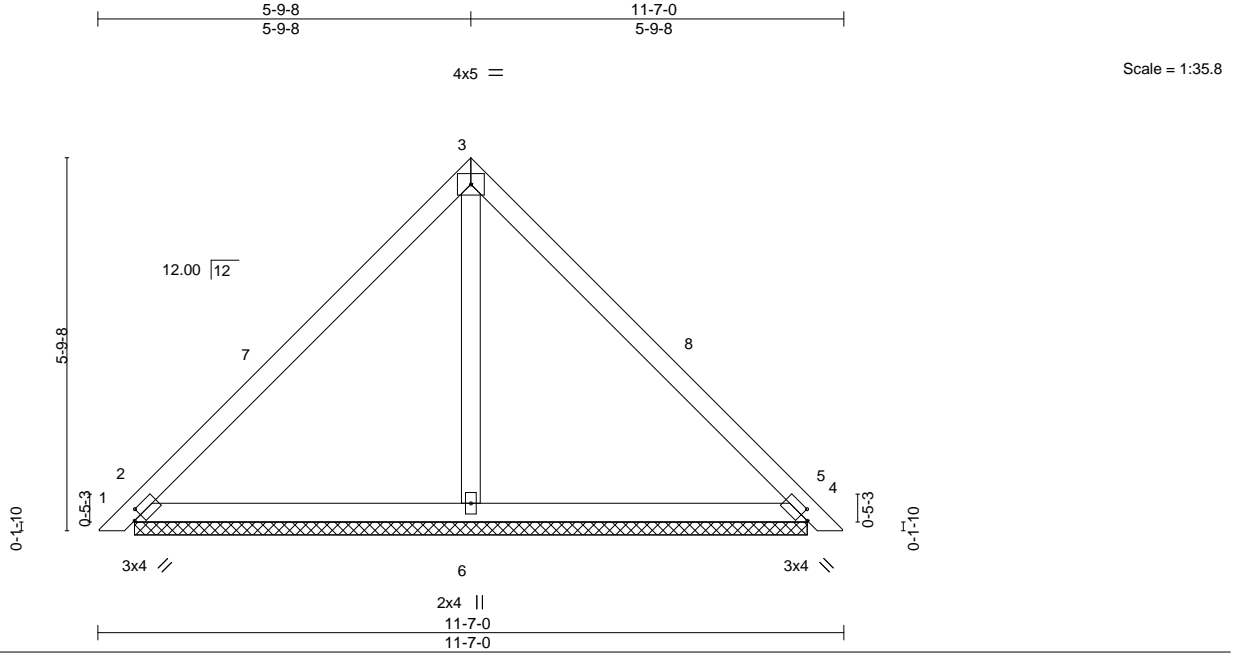


Plate Offsets (X,Y)-- [2:0-1-9,0-1-8], [4:0-1-9,0-1-8]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.28 | Vert(LL) | 0.01 | 5 | n/r | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.00 | BC 0.20 | Vert(CT) | 0.01 | 5 | n/r | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.10 | Horz(CT) | 0.00 | 4 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | | | | | Weight: 47 lb | FT = 20% |
| | Code IRC2018/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) 2=10-5-6, 4=10-5-6, 6=10-5-6
 Max Horz 2=-116(LC 10)
 Max Uplift 2=-35(LC 12), 4=-35(LC 12)
 Max Grav 2=256(LC 1), 4=256(LC 1), 6=365(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-2-10 to 3-2-10, Interior(1) 3-2-10 to 5-9-8, Exterior(2R) 5-9-8 to 8-9-8, Interior(1) 8-9-8 to 11-4-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) 2, 4.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 3, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

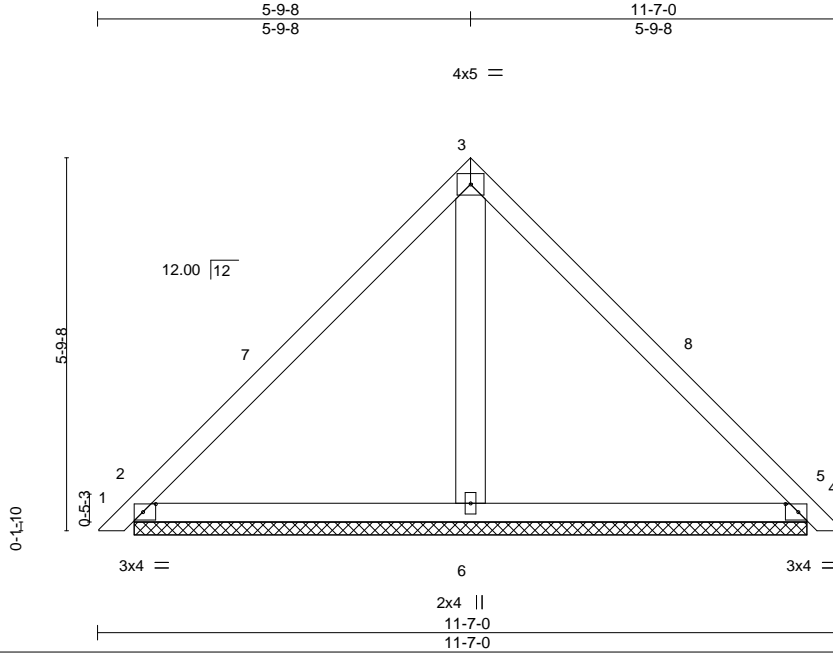


| | | | | | | |
|---------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688796 |
| 110 Maplewood | P03 | Piggyback | 1 | 2 | Job Reference (optional) | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:00:09 2020 Page 1

ID:LEZ9SRaPhqKQ8Z08kTcsSfz_sw7-TcZ1fsSB1wfHr_zWsmomKEIQczpVc7ocx7V_qlsX14



Scale = 1:35.8

Plate Offsets (X,Y)-- [2:0-2-6,0-1-8], [4:0-2-6,0-1-8]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.14 | Vert(LL) | 0.00 | 5 | n/r | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.00 | BC 0.10 | Vert(CT) | 0.01 | 5 | n/r | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.02 | Horz(CT) | 0.00 | 4 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | | | | | Weight: 103 lb | FT = 20% |
| | Code IRC2018/TPI2014 | | | | | | | |

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

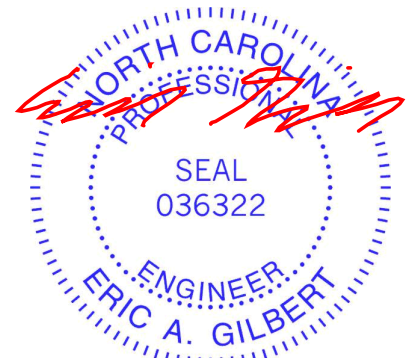
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=10-5-6, 4=10-5-6, 6=10-5-6
 Max Horz 2=-116(LC 10)
 Max Uplift 2=-34(LC 12), 4=-34(LC 12)
 Max Grav 2=240(LC 1), 4=240(LC 1), 6=397(LC 1)

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

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 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 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-2-10 to 3-2-10, Interior(1) 3-2-10 to 5-9-8, Exterior(2R) 5-9-8 to 8-9-8, Interior(1) 8-9-8 to 11-4-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 2, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 3,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

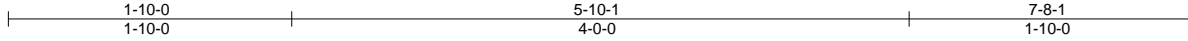


818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|---------------|-------|------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688797 |
| 110 Maplewood | P04 | GABLE | 2 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:00:12 2020 Page 1
ID:LEZ9SRaPhqKQ8Z08kTcsSfz_sw7-tBF9HtU31yIE8JiYB_JVoysoMpyeiz7F1vM9b9ysX11



Scale = 1:14.9

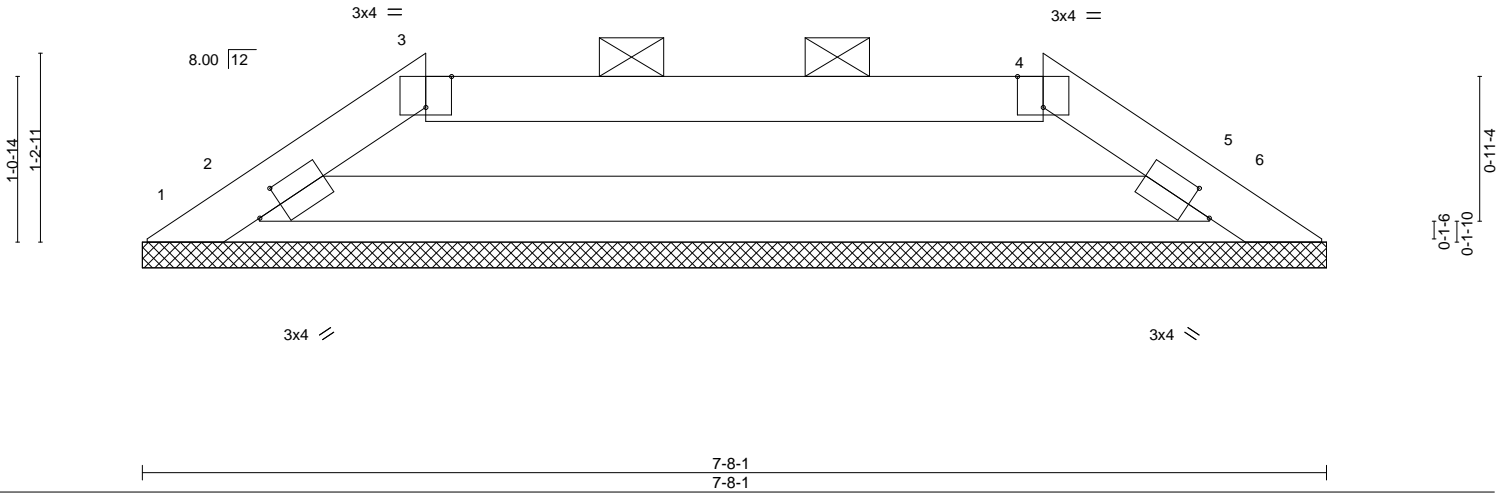


Plate Offsets (X,Y)-- [2:0-1-15,0-1-8], [3:0-2-0,Edge], [4:0-2-0,Edge], [5:0-1-15,0-1-8]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.16 | Vert(LL) | n/a | - | n/a | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.00 | BC 0.22 | Vert(CT) | n/a | - | n/a | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.00 | Horz(CT) | 0.00 | 6 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-R | | | | | Weight: 22 lb | FT = 20% |
| | Code IRC2018/TPI2014 | | | | | | | |

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=7-8-1, 6=7-8-1, 2=7-8-1, 5=7-8-1
Max Horz 1=-18(LC 10)
Max Uplift 1=-128(LC 3), 6=-128(LC 3)
Max Grav 2=378(LC 23), 5=378(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-333/167, 3-4=-277/155, 4-5=-333/167
BOT CHORD 2-5=-111/277

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - 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) except (jt=lb) 1=128, 6=128.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 3, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



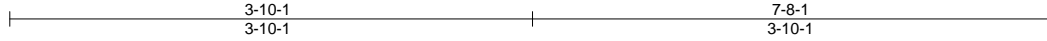
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|---------------|-------|------------|-----|-----|------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688798 |
| 110 Maplewood | P05 | Piggyback | 23 | 1 | | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:00:13 2020 Page 1

ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-MOoYUDVioGQ4mSHkIqkxAO_jDGeRQMOXZ5i7cysX10



Scale = 1:16.9

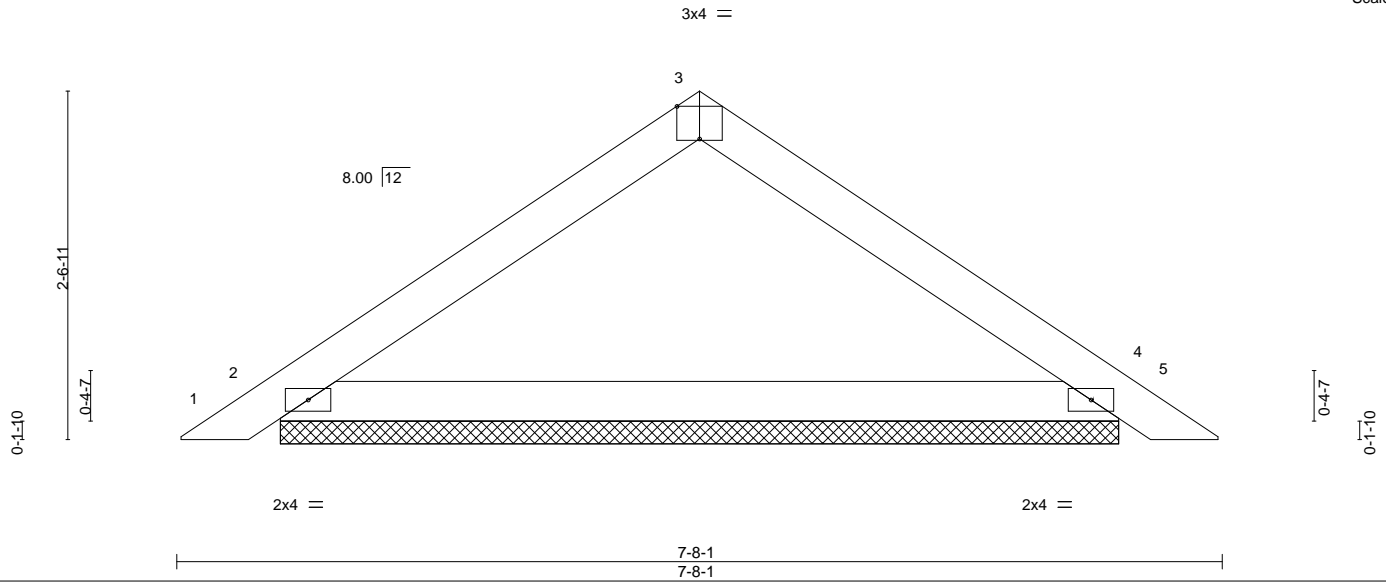


Plate Offsets (X,Y)-- [3:0-2-0,Edge]

| LOADING (psf) | SPACING- | 2-0-0 | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|-----------------|-----------------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 20.0 | Plate Grip DOL | 1.00 | TC 0.12 | Vert(LL) | 0.00 | 5 | n/r | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL | 1.15 | BC 0.36 | Vert(CT) | 0.01 | 5 | n/r | | |
| BCLL 0.0 * | Rep Stress Incr | YES | WB 0.00 | Horz(CT) | 0.00 | 4 | n/a | | |
| BCDL 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | Weight: 23 lb | FT = 20% |

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

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) 2=6-1-13, 4=6-1-13
 Max Horz 2=44(LC 11)
 Max Uplift 2=-22(LC 12), 4=-22(LC 12)
 Max Grav 2=275(LC 1), 4=275(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-5 to 3-3-5, Interior(1) 3-3-5 to 3-10-1, Exterior(2R) 3-10-1 to 6-10-15, Interior(1) 6-10-15 to 7-4-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 2, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 3, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

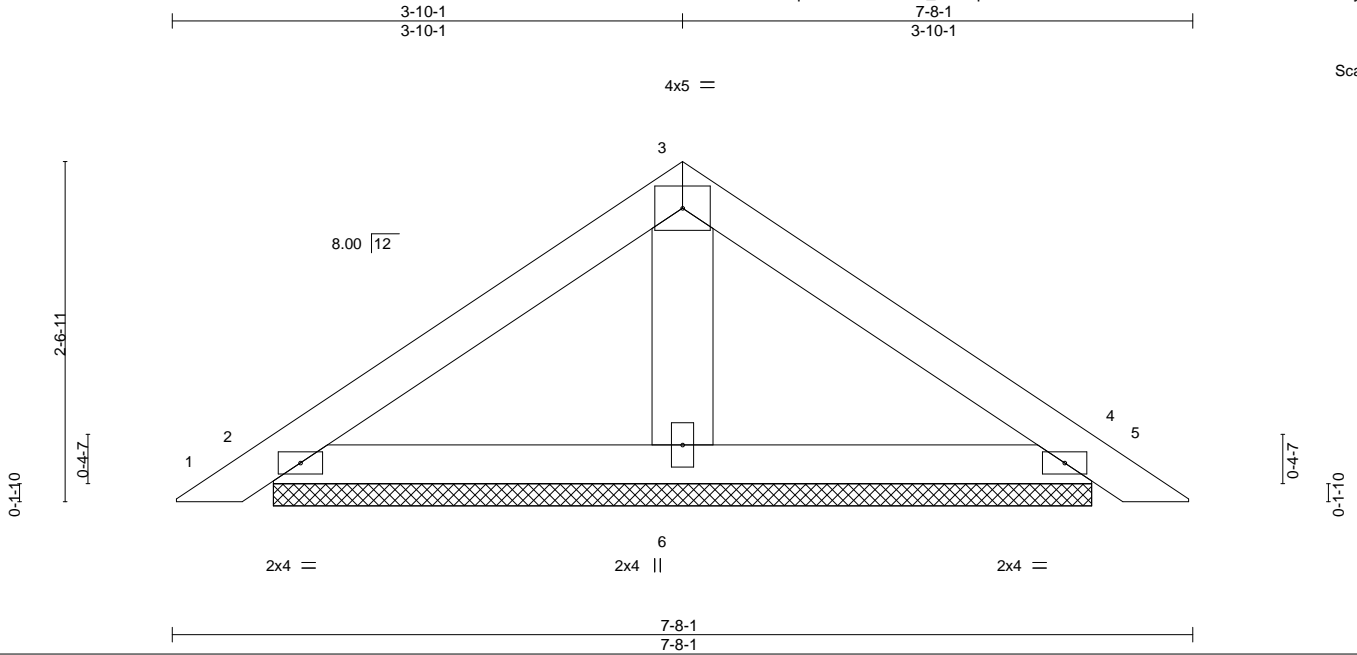


818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|---------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | South Scan | E14688799 |
| 110 Maplewood | P06 | Piggyback | 2 | 2 | Job Reference (optional) | |

Carolina Structural Systems, LLC, Ether, NC - 27247,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:00:14 2020 Page 1
ID:LEZ9SRaPhqKQ8ZO8kTcsSfz_sw7-qaMwiZWkZZYxOcswlPLzTNxAQdh0AtWYmDrFf2ysX1?



| LOADING (psf) | SPACING- | CSI. | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|------|-------|--------|-----|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.06 | Vert(LL) | 0.00 | 5 | n/r | 120 | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.00 | BC 0.03 | Vert(CT) | 0.00 | 5 | n/r | 120 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.01 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-P | | | | | | Weight: 54 lb | FT = 20% |
| | Code IRC2018/TPI2014 | | | | | | | | |

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x6 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) 2=6-1-13, 4=6-1-13, 6=6-1-13
Max Horz 2=-44(LC 10)
Max Uplift 2=-35(LC 12), 4=-35(LC 12)
Max Grav 2=159(LC 1), 4=159(LC 1), 6=232(LC 1)

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

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 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 7-16; Vult=125mph (3-second gust) Vasd=99mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-5 to 3-3-5, Interior(1) 3-3-5 to 3-10-1, Exterior(2R) 3-10-1 to 6-10-15, Interior(1) 6-10-15 to 7-4-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 2, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 3, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

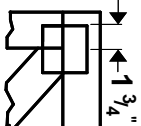
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



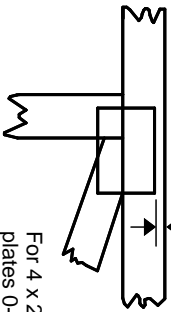
818 Soundside Road
Edenton, NC 27932

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- $\frac{1}{16}$ " from outside edge of truss.



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

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

PLATE SIZE

4 X 4

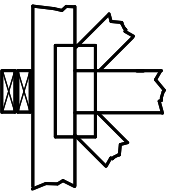
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



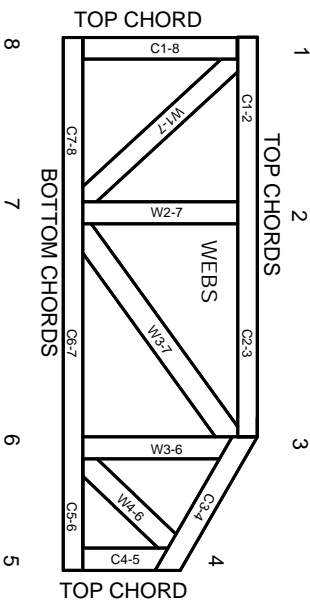
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

© 2012 MITteK® All Rights Reserved



MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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