

Trenco 818 Soundside Rd Edenton, NC 27932

Re: B0119-0443 Prelude C

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

Pages or sheets covered by this seal: E12642185 thru E12642195

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

North Carolina COA: C-0844



January 28,2019

Gilbert, Eric

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



| | L | 6-4-0 | 12-8-0 | | | | 38-0-0 | | | |
|-----------|------------|-------------------------|--------------------|----------------|-----------------|--------|-------------|-----|----------------|----------|
| | | 6-4-0 | 6-4-0 | | | | 25-4-0 | | | |
| Plate Off | sets (X,Y) | [21:0-0-14,0-1-12], [24 | :0-0-2,0-8-4], [24 | :0-0-0,0-1-12] | | | | | | |
| LOADIN | G (psf) | SPACING- | 2-0-0 | CSI. | DEFL. | in (| loc) l/defl | L/d | PLATES | GRIP |
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC 0.3 | 0.33 Vert(LL) - | 0.01 2 | -39 >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC 0.1 | 0.16 Vert(CT) - | 0.03 2 | -39 >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB 0.3 | 0.36 Horz(CT) | 0.01 | 22 n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015 | TPI2014 | Matrix-S | S Wind(LL) | 0.02 2 | -39 >999 | 240 | Weight: 286 lb | FT = 20% |
| LUMBER | र- | | | 1 | BRACING- | | | | 1 | |

| LUMBER- | | BRACING- | | |
|-----------|-------------|-----------|-------------------------------|---------------------------------------|
| TOP CHORD | 2x4 SP No.1 | TOP CHORD | Structural wood sheathing | directly applied or 6-0-0 oc purlins. |
| BOT CHORD | 2x6 SP No.1 | BOT CHORD | Rigid ceiling directly applie | ed or 6-0-0 oc bracing, Except: |
| WEBS | 2x4 SP No.3 | | 10-0-0 oc bracing: 2-39,38 | 3-39. |
| | | WEBS | T-Brace: | 2x4 SPF No.2 - 11-34, 12-33, 10-35 |
| | | | Fasten (2X) T and I brace | s to narrow edge of web with 10d |
| | | | (0.131"x3") nails, 6in o.c.,v | with 3in minimum end distance. |
| | | | Brace must cover 90% of v | web length. |
| | | JOINTS | 1 Brace at Jt(s): 41 | |

REACTIONS. All bearings 25-4-0 except (jt=length) 2=0-3-8, 22=0-3-8, 22=0-3-8. (lb) - Max Horz 2=-201(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 2, 33, 35, 31, 30, 29, 28, 27, 26, 25, 24, 37, 22 except 38=-315(LC 10) Max Grav All reactions 250 lb or less at joint(s) 33, 31, 30, 29, 28, 27, 26, 25,

- 24, 37, 22, 22 except 2=506(LC 1), 38=700(LC 1), 38=700(LC 1), 34=346(LC 20), 35=257(LC 17)
- FORCES. (Ib) Max. Comp./Max. Ten. All forces 250 (Ib) or less except when shown.
- TOP CHORD 2-3=-588/120, 21-22=-268/180
- BOT CHORD 2-39=-133/454, 38-39=-133/454

WEBS 3-42=-637/325, 41-42=-581/279, 40-41=-610/301, 38-40=-641/322, 3-39=0/282

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 14-7-3, Exterior(2) 14-7-3 to 19-0-0, Interior(1) 23-4-13 to 34-5-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 33, 35, 31, 30, 29, 28, 27, 26, 25, 24, 37, 22 except (jt=lb) 38=315.
- 7) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



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





| | <u>12-8-9</u> 12-8-9 | 2-3-7 | <u>23-0-0</u> 8-0-0 | 25-3-7 | | <u>38-0-0</u> 12-8-9 | |
|--|---|--|---|---|---------------------------------|----------------------------------|------------------------------------|
| LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0 | SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014 | CSI. TC 0.40 BC 0.85 WB 0.43 Matrix-S | DEFL. Vert(LL) Vert(CT) Horz(CT) Wind(LL) | in (loc) l/defl -0.59 10-13 >772 -0.72 10-13 >631 0.08 8 n/a 0.07 2-13 >999 | L/d 360 240 n/a 240 | PLATES MT20 Weight: 242 lb | GRIP 244/190 FT = 20% |

BRACING-TOP CHORD

BOT CHORD

| LUMBER- | |
|---------|--|
|---------|--|

| TOP CHORD | 2x6 SP No.1 |
|-----------|------------------------|
| BOT CHORD | 2x6 SP No.1 |
| WEBS | 2x4 SP No.2 *Except* |
| | 6-10,4-13: 2x4 SP No.3 |

- REACTIONS. (lb/size) 2=1560/0-3-8, 8=1560/0-3-8 Max Horz 2=-128(LC 8) Max Uplift 2=-141(LC 10), 8=-141(LC 11) Max Grav 2=1646(LC 2), 8=1646(LC 2)
- FORCES. (Ib) Max. Comp./Max. Ten. All forces 250 (Ib) or less except when shown.
- TOP CHORD 2-4=-3014/719, 4-5=-2743/724, 5-6=-2743/724, 6-8=-3014/719
- BOT CHORD 2-13=-489/2648, 10-13=-192/1734, 8-10=-489/2599
- WEBS 5-10=-187/1177, 6-10=-575/343, 5-13=-187/1176, 4-13=-575/343

NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 14-7-3, Exterior(2) 14-7-3 to 19-0-0, Interior(1) 23-4-13 to 34-3-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) except (jt=lb) 2=141, 8=141.

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Structural wood sheathing directly applied or 4-2-2 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

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| | <u>12-8-9</u> 12-8-9 | 15-0-0 | 23-0-0 8-0-0 | 25-3-7 | | <u>38-0-0</u> 12-8-9 | |
|--|---|---|---|--|---|----------------------------------|------------------------------------|
| Plate Offsets (X,Y | [2:0-3-4,0-2-0], [8:0-3-4,0-2-0] | | | | | | |
| LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 BCDL 10.0 | SPACING-2-3-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrNOCodeIRC2015/TPI2014 | CSI. TC 0.53 BC 0.81 WB 0.49 Matrix-S | DEFL. Vert(LL) Vert(CT) Horz(CT) Wind(LL) | in (loc) -0.33 10-15 = -0.47 10-15 = 0.10 8 0.09 10-15 = | l/defl L/d >999 360 >971 240 n/a n/a >999 240 | PLATES MT20 Weight: 261 lb | GRIP 244/190 FT = 20% |

| LUMBER- | | BRACING- | |
|-----------|--|-----------|---|
| TOP CHORD | 2x6 SP No.1 | TOP CHORD | 2-0-0 oc purlins (3-10-5 max.) |
| BOT CHORD | 2x6 SP No.1 | | (Switched from sheeted: Spacing > 2-0-0). |
| WEBS | 2x4 SP No.2 *Except* | BOT CHORD | Rigid ceiling directly applied or 9-0-8 oc bracing. |
| | 6-10.4-15: 2x4 SP No.3. 11-14: 2x6 SP No.1 | | |

REACTIONS. (lb/size) 2=1755/0-3-8, 8=1755/0-3-8 Max Horz 2=-144(LC 8) Max Uplift 2=-158(LC 10), 8=-158(LC 11) Max Grav 2=1851(LC 2), 8=1851(LC 2)

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

TOP CHORD 2-4=-3336/813, 4-5=-3054/818, 5-6=-3054/818, 6-8=-3336/813

BOT CHORD 2-15=-553/2954, 10-15=-220/1931, 8-10=-553/2899

WEBS 5-10=-212/1309, 6-10=-647/385, 5-15=-212/1309, 4-15=-647/385

NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 14-7-3, Exterior(2) 14-7-3 to 19-0-0, Interior(1) 23-4-13 to 34-3-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) except (jt=lb) 2=158, 8=158.

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



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| | 12-8-9 12-8-9 | 2-3-7 | 23-0-0 8-0-0 | 25-3-7 | | 38-0-0 12-8-9 | |
|--|---|--|---|---|--|----------------------------------|------------------------------------|
| LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 BCDL 10.0 | SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014 | CSI. TC 0.40 BC 0.66 WB 0.43 Matrix-S | DEFL. Vert(LL) Vert(CT) Horz(CT) Wind(LL) | in (loc) l/de -0.30 10-15 >99 -0.41 10-15 >99 0.09 8 n 0.08 10-15 >99 | efi L/d 99 360 99 240 n/a n/a 99 240 | PLATES MT20 Weight: 261 lb | GRIP 244/190 FT = 20% |

| LUMBER- |
|---------|
|---------|

| TOP CHORD | 2x6 SP No.1 |
|-----------|--|
| BOT CHORD | 2x6 SP No.1 |
| WEBS | 2x4 SP No.2 *Except* |
| | 6-10,4-15: 2x4 SP No.3, 11-14: 2x6 SP No.1 |

BRACING-

TOP CHORD BOT CHORD Structural wood sheathing directly applied or 4-2-3 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

- REACTIONS. (lb/size) 2=1560/0-3-8, 8=1560/0-3-8 Max Horz 2=-128(LC 8) Max Uplift 2=-141(LC 10), 8=-141(LC 11) Max Grav 2=1646(LC 2), 8=1646(LC 2)
- FORCES. (Ib) Max. Comp./Max. Ten. All forces 250 (Ib) or less except when shown.
- TOP CHORD 2-4=-2965/723, 4-5=-2715/727, 5-6=-2715/727, 6-8=-2965/723
- BOT CHORD 2-15=-492/2626, 10-15=-196/1716, 8-10=-492/2577
- WEBS 5-10=-189/1163, 6-10=-575/342, 5-15=-189/1163, 4-15=-575/342

NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 14-7-3, Exterior(2) 14-7-3 to 19-0-0, Interior(1) 23-4-13 to 34-3-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) except (jt=lb) 2=141, 8=141.



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- MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0
- 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) 2, 8, 13, 14, 11, 10.
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



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MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0

between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



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| [0-10-8 0-10-8 | | | 20-10-8 20-0-0 | 21-9-0 |
|--|---|---|---|-------------------------------|
| Plate Offsets (X,Y) | [15:0-4-0,0-4-8] | | | |
| LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0 | SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code JRC2015/TPI2014 | CSI. TC 0.11 BC 0.04 WB 0.07 Matrix-S | DEFL. in (loc) l/defl L/d PLATES GRI Vert(LL) 0.00 11 n/r 120 MT20 244 Vert(CT) 0.00 11 n/r 120 Horz(CT) 0.00 10 n/a n/a Weight: 102 lb F | I P /190 T = 20% |
| LUMBER- TOP CHORD 2x4 SP | No.1 | | BRACING- TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc put | rlins. |

BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing.

| | 274 01 100.1 |
|-----------|--------------|
| BOT CHORD | 2x6 SP No.1 |
| OTHERS | 2x4 SP No.3 |

REACTIONS. All bearings 20-0-0.

(lb) - Max Horz 2=-73(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 10, 2, 16, 17, 14, 13 except 18=-121(LC 10), 12=-120(LC 11) All reactions 250 lb or less at joint(s) 10, 2, 15, 16, 17, 14, 13 except 18=315(LC 21), 12=315(LC Max Grav 22)

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

NOTES

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

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 5-7-3, Corner(3) 5-7-3 to 10-0-0, Exterior(2) 14-4-13 to 16-5-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 10, 2, 16, 17, 14, 13 except (it=lb) 18=121, 12=120.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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| H | <u> </u> | | | 20-0-0 10-0-0 | | | | |
|---|--|--|---|---|--|------------------------------------|--|--|
| Plate Offsets (X,Y) | [6:0-6-0,0-3-0] | | | | | | | |
| LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 BCDL 10.0 | SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014 | CSI. TC 0.59 BC 0.78 WB 0.17 Matrix-S | DEFL. in Vert(LL) -0.17 Vert(CT) -0.38 Horz(CT) 0.04 Wind(LL) 0.06 | (loc) l/defl L/d 2-6 >999 360 2-6 >624 240 4 n/a n/a 2-6 >999 240 | PLATES MT20 Weight: 88 lb | GRIP 244/190 FT = 20% | | |
| LUMBER- TOP CHORD 2x6 SP BOT CHORD 2x4 SP WEBS 2x4 SP | No.1 No.1 No.3 | | BRACING- TOP CHORD BOT CHORD | Structural wood sheathing Rigid ceiling directly applie | directly applied or 5-0-1 d or 10-0-0 oc bracing. | 3 oc purlins. | | |
| REACTIONS. (Ib/size) 4=838/0-3-8, 2=838/0-3-8 Max Horz 2=-43(LC 15) Max Uplift 4=-112(LC 7), 2=-112(LC 6) | | | | | | | | |
| FORCES. (lb) - Max. TOP CHORD 2-3=- BOT CHORD 2-6=- WEBS 3-6=0 | Comp./Max. Ten All forces 250 (lb) or 1438/461, 3-4=-1438/461 329/1294, 4-6=-329/1294)/455 | less except when shown. | | | | | | |
| NOTES- 1) Unbalanced roof live 2) Wind: ASCE 7-10; V MWFRS (envelope) 16-3-6 zone;C-C for 3) This truss has been | loads have been considered for this de- ult=130mph (3-second gust) Vasd=103r and C-C Exterior(2) -0-8-3 to 3-8-10, Int members and forces & MWFRS for read designed for a 10.0 psf bottom chord live | sign. nph; TCDL=6.0psf; BCDL: erior(1) 3-8-10 to 5-7-3, E: tions shown; Lumber DOI e load nonconcurrent with | =5.0psf; h=15ft; Cat. II; I xterior(2) 5-7-3 to 10-0-0 L=1.60 plate grip DOL=1 any other live loads. | Exp C; enclosed;), Interior(1) 14-4-13 to 1.60 | | | | |

This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 4)

between the bottom chord and any other members. 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=112, 2=112.

6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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





| | | | 0 1 | | | | | | | | | |
|----------------------------------|---------|-----------------|--------|----------------------|------|----------|----------|--------------|-------------------------|-------------|---------------|----------|
| LOADIN | G (psf) | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.50 | Vert(LL) | -0.06 | 7-8 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.31 | Vert(CT) | -0.12 | 7-8 | >649 | 240 | M18SHS | 244/190 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | -0.00 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TI | PI2014 | Matrix | (-S | Wind(LL) | 0.13 | 7-8 | >592 | 240 | Weight: 32 lb | FT = 20% |
| LUMBER- TOP CHORD 2x4 SP No.1 | | | | BRACING- TOP CHOR | RD. | Structu | ral wood | sheathing di | rectly applied or 6-0-0 | oc purlins, | | |

BOT CHORD

except end verticals.

Rigid ceiling directly applied or 10-0-0 oc bracing.

TOP CHORD2x4 SP No.1BOT CHORD2x4 SP No.1WERD2x4 SP No.1

WEBS 2x4 SP No.3 OTHERS 2x4 SP No.3

REACTIONS. (lb/size) 2=321/0-3-8, 6=247/0-1-8 Max Horz 2=169(LC 10)

Max Uplift 2=-71(LC 10), 6=-114(LC 10)

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

NOTES-

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone;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 studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 7) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6=114.



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| LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 BCDL 10.0 | SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2015/TPI2014 | CSI. TC 0.57 BC 0.41 WB 0.00 Matrix-P | DEFL. Vert(LL) -0. Vert(CT) -0. Horz(CT) 0 Wind(LL) 0 | in (loc) 0.09 2-4 0.17 2-4 0.00 4 0.19 2-4 | l/defl L/d >883 360 >441 240 n/a n/a >400 240 | PLATES MT20 Weight: 27 lb | GRIP 244/190 FT = 20% |
|--|---|--|---|--|---|---------------------------------|------------------------------------|

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD2x4 SP No.1BOT CHORD2x4 SP No.1WEBS2x4 SP No.3

REACTIONS. (lb/size) 2=321/0-3-8, 4=247/0-1-8 Max Horz 2=117(LC 10)

Max Uplift 2=-41(LC 6), 4=-59(LC 10)

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

NOTES-

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) zone; porch left 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) Gable studs spaced at 2-0-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



Structural wood sheathing directly applied or 6-0-0 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.

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