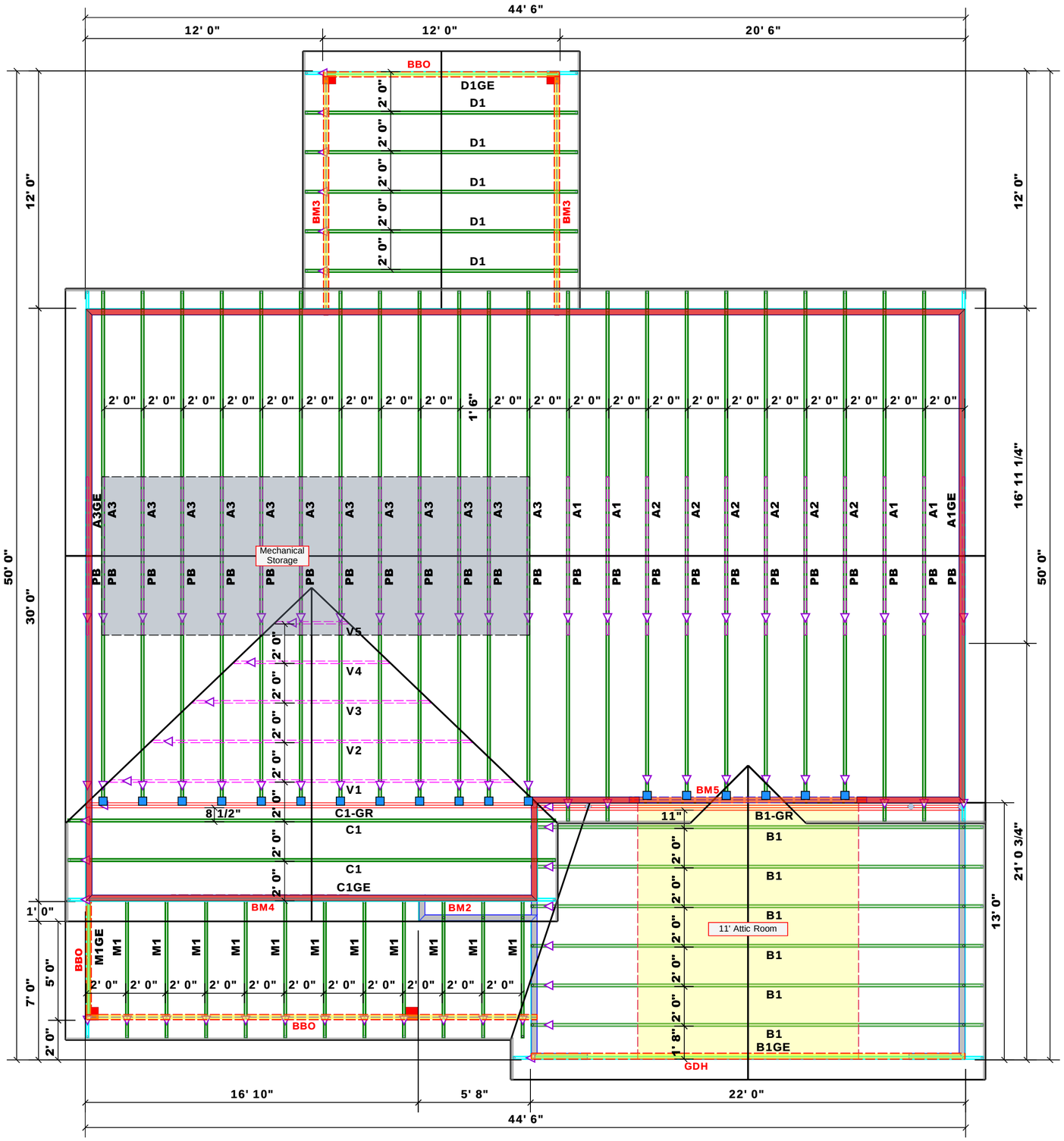


| Products | | | | | |
|---|---|---|---|---|---|
| PlotID | Length | Product | Plies | Net Qty | Fab Type |
| BM5 | 12' 0" | 1-3/4"x 11-7/8" LVL Kerto-S | 2 | 2 | FF |

1 Truss Placement Plan
Scale: 1/4"=1'

| Hatch Legend |
|---|
| Padded HVAC |
| Second Floor Walls |

| | |
|---|---|
| Roof Area | = 2768.4 sq.ft. |
| Ridge Line | = 92.31 ft. |
| Hip Line | = 0 ft. |
| Horiz. OH | = 137.81 ft. |
| Raked OH | = 181.25 ft. |
| Decking | = 95 sheets |

| Dimension Notes |
|---|
| 1. All exterior wall to wall dimensions are to face of sheathing unless noted otherwise<br>2. All interior wall dimensions are to face of frame wall unless noted otherwise<br>3. All exterior wall to truss dimensions are to face of frame wall unless noted otherwise |

All Walls Shown Are Considered Load Bearing

| Connector Information | | | | | Nail Information | |
|---|---|---|---|---|---|---|
| Sym | Product | Manuf | Qty | Supported Member | Header | Truss |
| | HUS26 | USP | 18 | Varies | 16d/3-1/2" | 16d/3-1/2" |


COMTECH
ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444


Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature _____
David Landry

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

| END REACTION (UP TO) | REQ'D # STUDS FOR (2) PLY HEADER | END REACTION (UP TO) | REQ'D # STUDS FOR (3) PLY HEADER | END REACTION (UP TO) | REQ'D # STUDS FOR (4) PLY HEADER |
|---|---|---|---|---|---|
| 1700 | 1 | 2550 | 1 | 3400 | 1 |
| 3400 | 2 | 5100 | 2 | 6800 | 2 |
| 5100 | 3 | 7650 | 3 | 10200 | 3 |
| 6800 | 4 | 10200 | 4 | 13600 | 4 |
| 8900 | 5 | 12750 | 5 | 17000 | 5 |
| 10200 | 6 | 15300 | 6 | | |
| 11900 | 7 | | | | |
| 13600 | 8 | | | | |
| 15300 | 9 | | | | |

| | |
|---|---|
| BUILDER | Benjamin Stout Real Estate |
| JOB NAME | Lot 48 Liberty Meadows |
| PLAN | The Ashville / 2GRF, CP |
| SEAL DATE | N/A |
| QUOTE # | |
| JOB # | J0822-4074 |
| COUNTY | Harnett Co. / Harnett |
| ADDRESS | 60 Melvill Lane |
| MODEL | Roof |
| DATE REV. | 08/10/22 |
| DRAWN BY | David Landry |
| SALESMAN | Marshall Naylor |

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

RE: J0822-4074
Lot 48 Liberty Meadows

**Trenco**
818 Soundside Rd
Edenton, NC 27932

**Site Information:**

Customer: Benjamin Stout Real Estate
Lot/Block: 48
Address: 60 Melvill Lane
City:

Project Name: J0822-4074
Model: Ashville
Subdivision: Liberty Meadows
State: NC

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

Design Code: IRC2015/TPI2014
Wind Code: ASCE 7-10
Roof Load: 40.0 psf

Design Program: MiTek 20/20 8.4
Wind Speed: 130 mph
Floor Load: N/A psf

This package includes 21 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal# | Truss Name | Date | No. | Seal# | Truss Name | Date |
|---|---|---|---|---|---|---|---|
| 1 | E16391025 | A1 | 11/9/2021 | 21 | E16391045 | V5 | 11/9/2021 |
| 2 | E16391026 | A1GE | 11/9/2021 | | | | |
| 3 | E16391027 | A2 | 11/9/2021 | | | | |
| 4 | E16391028 | A3 | 11/9/2021 | | | | |
| 5 | E16391029 | A3GE | 11/9/2021 | | | | |
| 6 | E16391030 | B1 | 11/9/2021 | | | | |
| 7 | E16391031 | B1-GR | 11/9/2021 | | | | |
| 8 | E16391032 | B1GE | 11/9/2021 | | | | |
| 9 | E16391033 | C1 | 11/9/2021 | | | | |
| 10 | E16391034 | C1-GR | 11/9/2021 | | | | |
| 11 | E16391035 | C1GE | 11/9/2021 | | | | |
| 12 | E16391036 | D1 | 11/9/2021 | | | | |
| 13 | E16391037 | D1GE | 11/9/2021 | | | | |
| 14 | E16391038 | M1 | 11/9/2021 | | | | |
| 15 | E16391039 | M1GE | 11/9/2021 | | | | |
| 16 | E16391040 | PB | 11/9/2021 | | | | |
| 17 | E16391041 | V1 | 11/9/2021 | | | | |
| 18 | E16391042 | V2 | 11/9/2021 | | | | |
| 19 | E16391043 | V3 | 11/9/2021 | | | | |
| 20 | E16391044 | V4 | 11/9/2021 | | | | |

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

Truss Design Engineer's Name: Gilbert, Eric
My license renewal date for the state of North Carolina is December 31, 2022.
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.

November 09, 2021

Gilbert, Eric

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | A1 | PIGGYBACK BASE | 4 | 1 | E16391025 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:28 2021 Page 1
ID:J6aSr?qB6etazEy6hKRSkZzPTZ_-MqpdoUM7EoTIN24GPTwDRWQD5Mu8NN4J809sp6yLENX

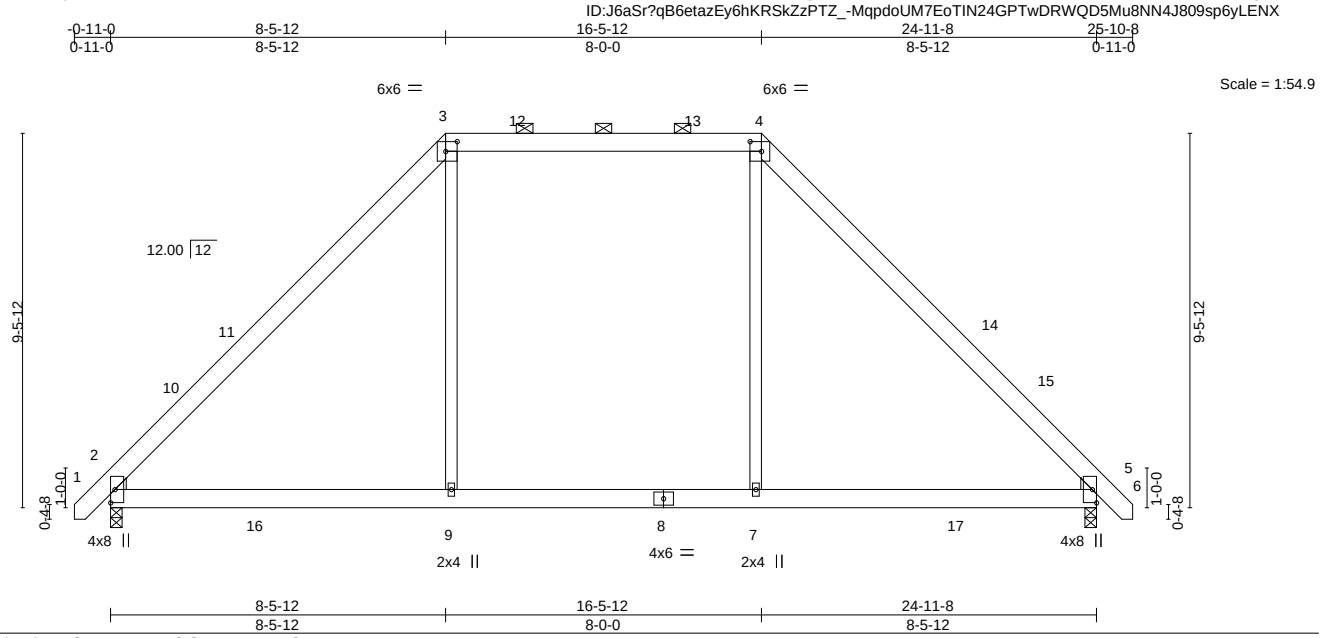


Plate Offsets (X,Y)-- [3:0-3-8,0-3-0], [4:0-3-8,0-3-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.43 | Vert(LL) | -0.15 | 5-7 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.46 | Vert(CT) | -0.20 | 5-7 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.15 | Horz(CT) | 0.02 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | Wind(LL) | 0.19 | 2-9 | >999 | 240 | Weight: 167 lb | FT = 20% |

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

**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) 2=0-3-8, 5=0-3-8
Max Horz 2=223(LC 11)
Max Uplift 2=-35(LC 12), 5=-35(LC 13)
Max Grav 2=1309(LC 2), 5=1309(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1465/308, 3-4=-908/350, 4-5=-1465/308
BOT CHORD 2-9=-36/930, 7-9=-33/938, 5-7=-33/928
WEBS 3-9=0/653, 4-7=0/653

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-6 to 3-7-7, Interior(1) 3-7-7 to 8-5-12, Exterior(2) 8-5-12 to 14-8-7, Interior(1) 14-8-7 to 16-5-12, Exterior(2) 16-5-12 to 22-8-7, Interior(1) 22-8-7 to 25-8-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, 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, 5.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | A1GE | GABLE | 1 | 1 | E16391026 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:29 2021 Page 1
ID:J6aSr?qB6etazEy6hKRSkZzPTZ_-r1N?0qNl?5b9?CfSzBRS_jyUylL26qXSNguQLZyLENW

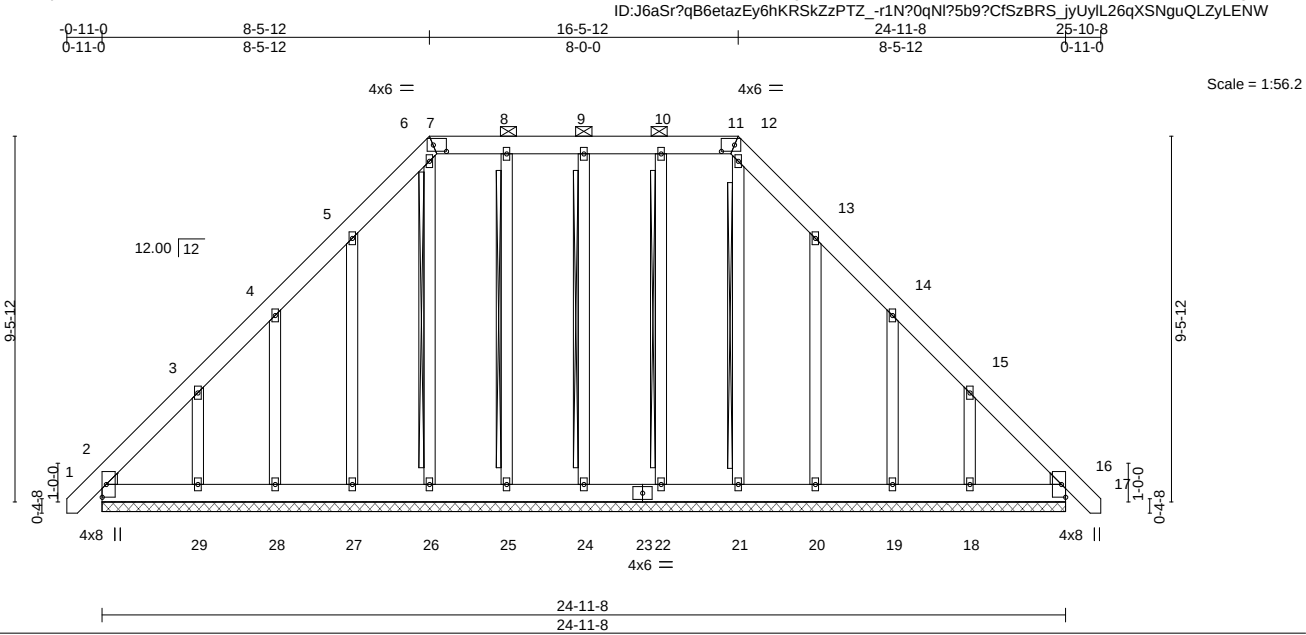


Plate Offsets (X,Y)-- [7:0-4-2,0-2-0], [11:0-4-2,0-2-0]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.04 | Vert(LL) | 0.00 | 16 | n/r | 120 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | 0.00 | 16 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.13 | Horz(CT) | 0.01 | 16 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 245 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 9-24, 8-25, 6-26, 10-22, 12-21
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

**REACTIONS.** All bearings 24-11-8.
(lb) - Max Horz 2=280(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 24, 25, 26, 22, 16 except 2=-114(LC 8), 27=-130(LC 12), 28=-135(LC 12), 29=-221(LC 12), 20=-125(LC 13), 19=-136(LC 13), 18=-214(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 22, 21, 20, 19, 18, 16 except 29=254(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-311/246

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 25, 26, 22, 16 except (jt=lb) 2=114, 27=130, 28=135, 29=221, 20=125, 19=136, 18=214.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 16.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | A2 | PIGGYBACK BASE | 6 | 1 | E16391027 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:30 2021 Page 1
ID:J6aSr?qB6etazEy6hKRSkZzPTZ_-JDxNDAONmPj0cMEfXuyhWxVZW9ZXrIvbcKezu?yLENV

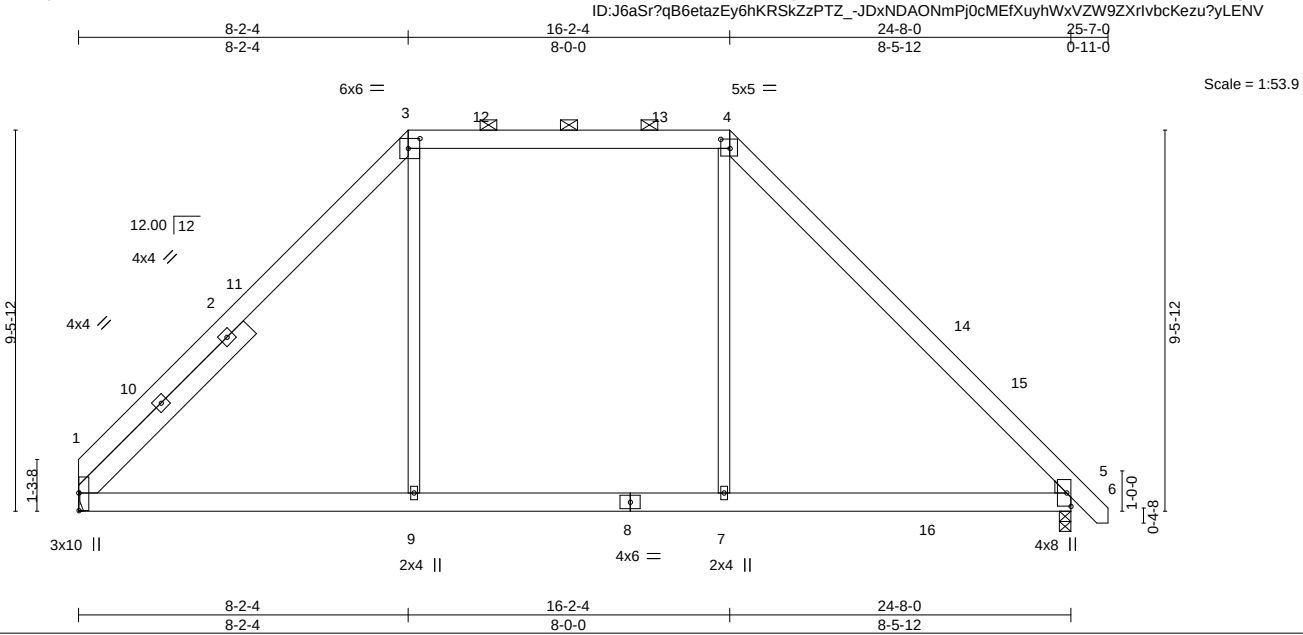


Plate Offsets (X,Y)-- [1:Edge,0-0-0], [3:0-3-8,0-3-0], [4:0-2-12,0-2-12]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.44 | Vert(LL) | -0.29 | 5-7 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.53 | Vert(CT) | -0.34 | 5-7 | >861 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.13 | Horz(CT) | 0.02 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | Wind(LL) | 0.19 | 5-7 | >999 | 240 | Weight: 176 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE
Right: 2x4 SP No.2
SLIDER Left 2x6 SP No.1 5-11-1

**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=Mechanical, 5=0-3-8
Max Horz 1=-221(LC 8)
Max Uplift 1=-20(LC 12), 5=-35(LC 13)
Max Grav 1=1087(LC 2), 5=1249(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1337/307, 3-4=-815/353, 4-5=-1306/303
BOT CHORD 1-9=-36/838, 7-9=-32/844, 5-7=-33/836
WEBS 3-9=0/518, 4-7=0/562

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 8-2-4, Exterior(2) 8-2-4 to 14-4-15, Interior(1) 14-4-15 to 16-2-4, Exterior(2) 16-2-4 to 22-4-15, Interior(1) 22-4-15 to 25-5-6 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | A3 | PIGGYBACK BASE | 12 | 1 | E16391028 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:31 2021 Page 1
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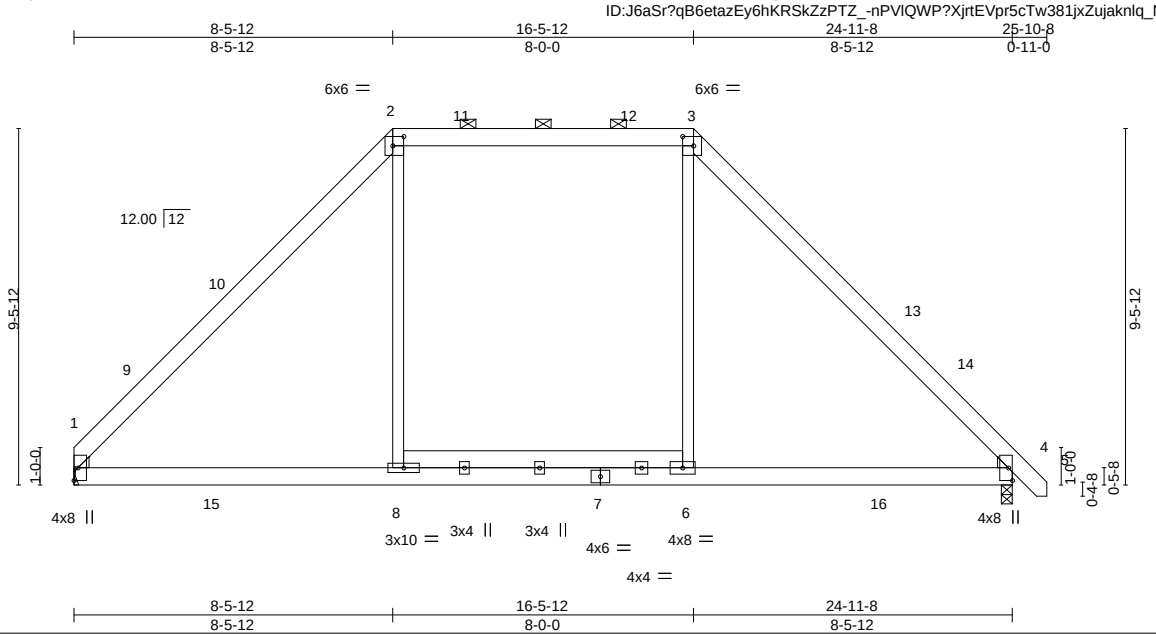


Plate Offsets (X,Y)-- [2:0-3-8,0-3-0], [3:0-3-8,0-3-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.46 | Vert(LL) | -0.14 | 1-8 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.53 | Vert(CT) | -0.19 | 1-8 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.15 | Horz(CT) | 0.02 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | Wind(LL) | 0.17 | 1-8 | >999 | 240 | Weight: 181 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-11-9 oc purlins, except
2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=Mechanical, 4=0-3-8
Max Horz 1=-221(LC 8)
Max Uplift 1=-22(LC 12), 4=-35(LC 13)
Max Grav 1=1263(LC 2), 4=1314(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1449/307, 2-3=-925/359, 3-4=-1489/315
BOT CHORD 1-8=-35/947, 6-8=-37/955, 4-6=-32/944
WEBS 2-8=0/660, 3-6=0/667

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 8-5-12, Exterior(2) 8-5-12 to 14-8-7, Interior(1) 14-8-7 to 16-5-12, Exterior(2) 16-5-12 to 22-8-7, Interior(1) 22-8-7 to 25-8-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows E16391029 |
|---|---|---|---|---|---|
| J0822-4074 | A3GE | GABLE | 1 | 1 | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:32 2021 Page 1
ID:J6aSr?qB6etazEy6hKRSkZzPTZ_-Fc37esQdI0zksfN1eJ_9bMa?CzMlJAGu3e74yuyLENT

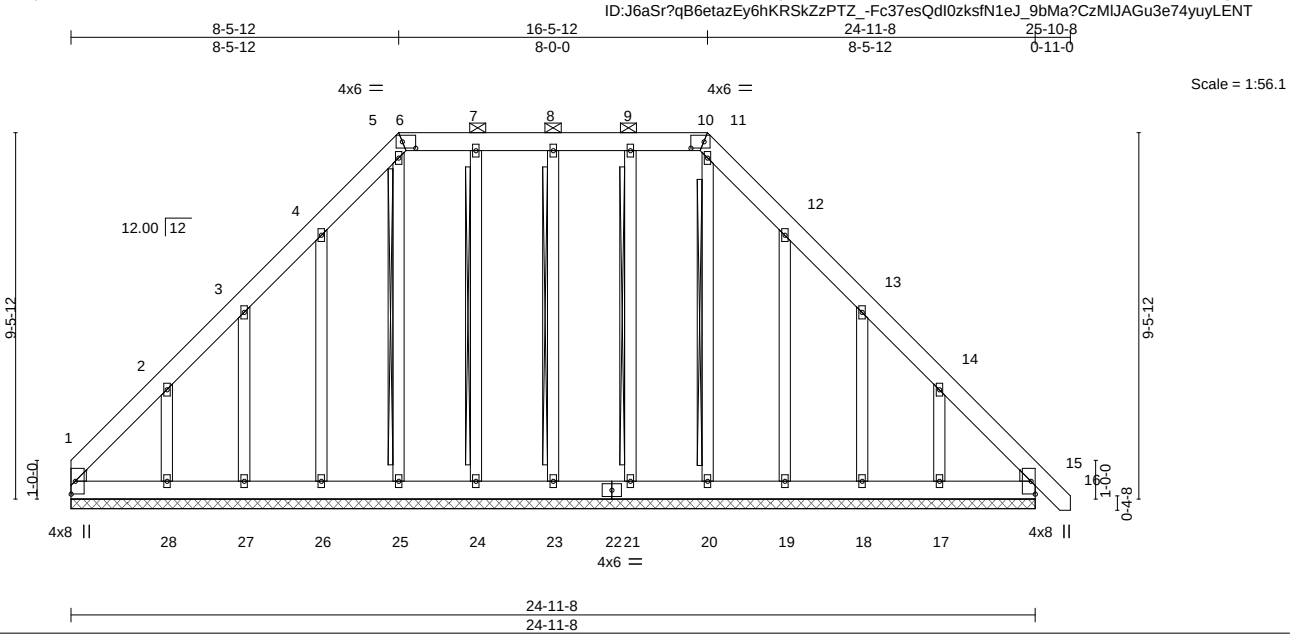


Plate Offsets (X,Y)-- [6:0-4-2,0-2-0], [10:0-4-2,0-2-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.04 | Vert(LL) | 0.00 | 15 | n/r | 120 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | 0.00 | 15 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.13 | Horz(CT) | 0.01 | 15 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 242 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 8-23, 7-24, 5-25, 9-21, 11-20
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

**REACTIONS.** All bearings 24-11-8.
(lb) - Max Horz 1=-277(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 23, 24, 25, 21, 15 except 26=-129(LC 12), 27=-134(LC 12), 28=-228(LC 12), 19=-125(LC 13), 18=-136(LC 13), 17=-214(LC 13), 1=-120(LC 10)
Max Grav All reactions 250 lb or less at joint(s) 23, 24, 25, 26, 27, 21, 20, 19, 18, 17, 1, 15 except 28=266(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-317/250
WEBS 2-28=-252/242

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 24, 25, 21, 15 except (jt=lb) 26=129, 27=134, 28=228, 19=125, 18=136, 17=214, 1=120.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 15.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows E16391030 |
|---|---|---|---|---|---|
| J0822-4074 | B1 | ATTIC | 6 | 1 | Job Reference (optional) |

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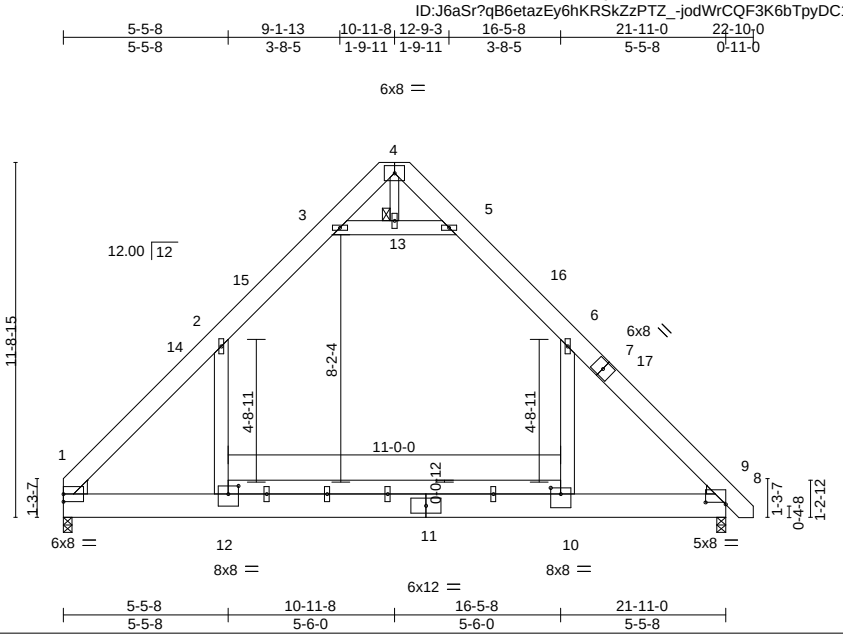


Plate Offsets (X,Y)-- [8:0-8-0,0-0-13], [10:0-4-0,0-2-8], [12:0-4-0,0-3-4]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.73 | Vert(LL) | -0.21 | 10-12 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.69 | Vert(CT) | -0.36 | 10-12 | >720 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.14 | Horz(CT) | 0.01 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | Wind(LL) | 0.08 | 10-12 | >999 | 240 | Weight: 248 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x8 SP No.1
BOT CHORD 2x10 SP No.1 *Except*
10-12: 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
4-13: 2x4 SP No.2
WEDGE
Left: 2x6 SP No.2 , Right: 2x4 SP No.3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-1-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 13

**REACTIONS.** (size) 1=0-3-8, 8=0-3-8
Max Horz 1=-277(LC 8)
Max Grav 1=1413(LC 21), 8=1459(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1867/0, 2-3=-1036/152, 3-4=-37/438, 4-5=-42/447, 5-6=-1028/148, 6-8=-1930/0
BOT CHORD 1-12=0/1085, 10-12=0/1085, 8-10=0/1085
WEBS 6-10=0/975, 2-12=0/889, 3-13=-1621/246, 5-13=-1621/246

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 10-11-8, Exterior(2) 10-11-8 to 15-4-5, Interior(1) 15-4-5 to 22-7-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x6 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Ceiling dead load (10.0 psf) on member(s). 2-3, 5-6, 3-13, 5-13; Wall dead load (5.0psf) on member(s).6-10, 2-12
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 10-12
8) Attic room checked for L/360 deflection.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | B1-GR | ATTIC | 1 | 3 | E16391031 |
| | | | | | Job Reference (optional) |

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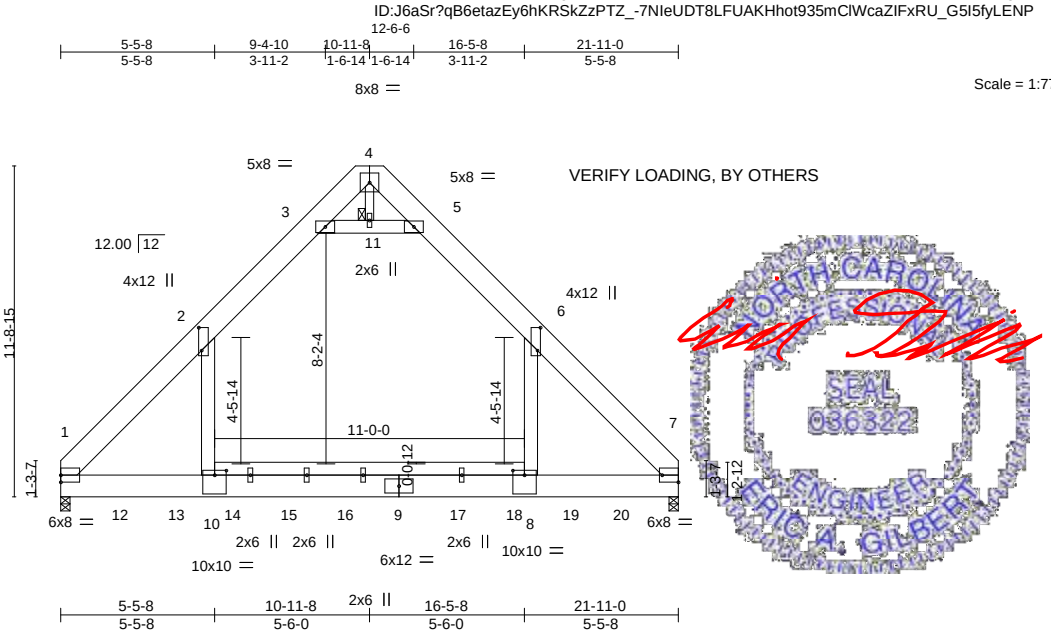





Plate Offsets (X,Y)-- [2:0-9-12,0-1-4], [6:0-9-12,0-1-4], [7:Edge,0-3-0], [8:0-5-0,0-2-0], [10:0-5-0,0-2-0]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.72 | Vert(LL) | -0.29 | 8-10 | >905 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.76 | Vert(CT) | -0.39 | 8-10 | >666 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.38 | Horz(CT) | 0.02 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | Wind(LL) | 0.01 | 10 | >999 | 240 | Weight: 801 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x10 SP 2400F 2.0E
BOT CHORD 2x10 SP No.1 *Except*
8-10: 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
4-11: 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.
JOINTS 1 Brace at Jt(s): 11

**REACTIONS.** (size) 1=0-4-0, 7=0-4-0
Max Horz 1=271(LC 5)
Max Grav 1=9588(LC 14), 7=9573(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-10113/0, 2-3=-4213/35, 3-4=-19/3638, 4-5=-20/3649, 5-6=-4203/35, 6-7=-10124/0
BOT CHORD 1-10=0/5656, 8-10=0/5720, 7-8=0/5656
WEBS 6-8=0/8207, 2-10=0/8177, 3-11=-11296/4, 5-11=-11296/4, 4-11=0/835

**NOTES-**
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 5 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) Concentrated loads from layout are not present in Load Case(s): #3 Dead + Uninhabitable Attic Without Storage; #4 Dead + 0.6 MWFRS Wind (Pos. Internal) Left; #5 Dead + 0.6 MWFRS Wind (Pos. Internal) Right; #6 Dead + 0.6 MWFRS Wind (Neg. Internal) Left; #7 Dead + 0.6 MWFRS Wind (Neg. Internal) Right; #8 Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel; #9 Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel; #10 Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel; #11 Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel; #12 Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel; #13 Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel; #20 Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left); #21 Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right); #22 Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel); #23 Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel).
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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Continued on page 2



818 Soundside Road
Edenton, NC 27932

**NOTES-**

7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Ceiling dead load (10.0 psf) on member(s). 2-3, 5-6, 3-11, 5-11; Wall dead load (5.0psf) on member(s).6-8, 2-10
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 8-10
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1726 lb down at 1-11-12, 1726 lb down at 3-11-12, 3826 lb down at 5-2-12, 376 lb down and 34 lb up at 5-11-12, 376 lb down and 34 lb up at 7-11-12, 376 lb down and 34 lb up at 9-11-12, 376 lb down and 34 lb up at 11-11-12, 376 lb down and 34 lb up at 13-11-12, 376 lb down and 34 lb up at 15-11-12, 3826 lb down at 16-8-4, and 1726 lb down at 17-11-12, and 1726 lb down at 19-9-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-3=-80, 3-4=-60, 4-5=-60, 5-6=-80, 6-7=-60, 1-10=-20, 8-10=-40, 7-8=-20, 3-5=-20
   Drag: 6-8=-10, 2-10=-10
   Concentrated Loads (lb)
   Vert: 9=-62(B) 8=-1029(B) 10=-1029(B) 12=-430(B) 13=-430(B) 14=-62(B) 15=-62(B) 16=-62(B) 17=-62(B) 18=-62(B) 19=-430(B) 20=-430(B)




818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows E16391032 |
|---|---|---|---|---|---|
| J0822-4074 | B1GE | GABLE | 1 | 1 | Job Reference (optional) |

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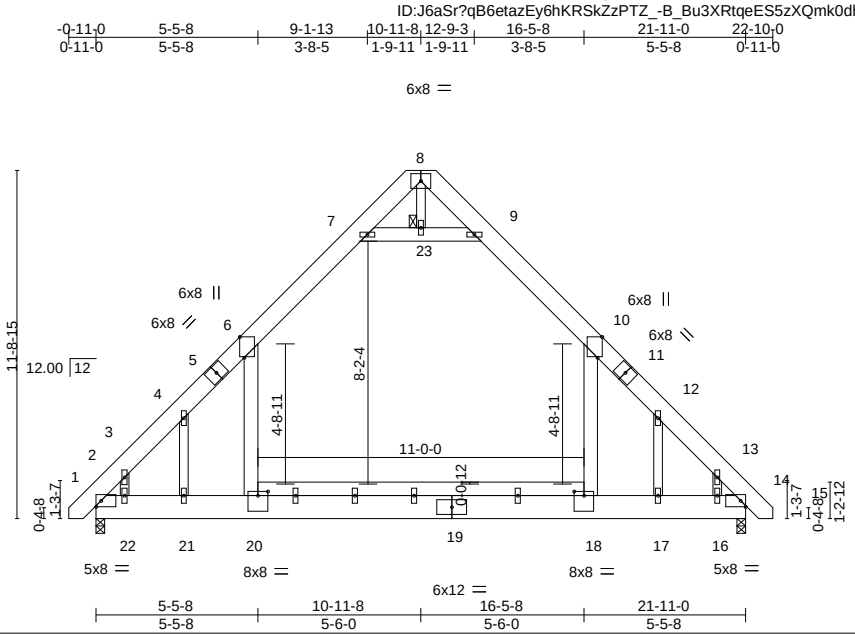


Plate Offsets (X,Y)-- [6:0-8-6,Edge], [10:0-8-6,Edge], [18:0-4-0,0-1-12], [20:0-4-0,0-1-12]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.72 | Vert(LL) | -0.17 | 18-20 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.63 | Vert(CT) | -0.30 | 18-20 | >855 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.17 | Horz(CT) | 0.01 | 14 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | Wind(LL) | 0.08 | 18-20 | >999 | 240 | Weight: 261 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x8 SP No.1
BOT CHORD 2x10 SP No.1 *Except*
18-20: 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
8-23: 2x4 SP No.2
OTHERS 2x4 SP No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 23

**REACTIONS.** (size) 2=0-3-8, 14=0-3-8
Max Horz 2=349(LC 11)
Max Grav 2=1443(LC 20), 14=1443(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1821/0, 3-4=-1558/0, 4-6=-1957/23, 6-7=-1028/184, 7-8=-60/389, 8-9=-61/390, 9-10=-1028/184, 10-12=-1956/22, 12-13=-1557/0, 13-14=-1821/0
BOT CHORD 2-22=0/1098, 21-22=0/1110, 20-21=0/1095, 18-20=0/1095, 17-18=0/1095, 16-17=0/1109, 14-16=0/1092
WEBS 10-18=0/1192, 6-20=0/1192, 7-23=-1506/324, 9-23=-1506/324, 4-21=-717/135, 3-22=0/341, 12-17=-717/135, 13-16=0/341

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 2x6 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Ceiling dead load (10.0 psf) on member(s). 6-7, 9-10, 7-23, 9-23; Wall dead load (5.0psf) on member(s).10-18, 6-20
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 18-20
10) Attic room checked for L/360 deflection.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows E16391033 |
|---|---|---|---|---|---|
| J0822-4074 | C1 | COMMON | 2 | 1 | Job Reference (optional) |

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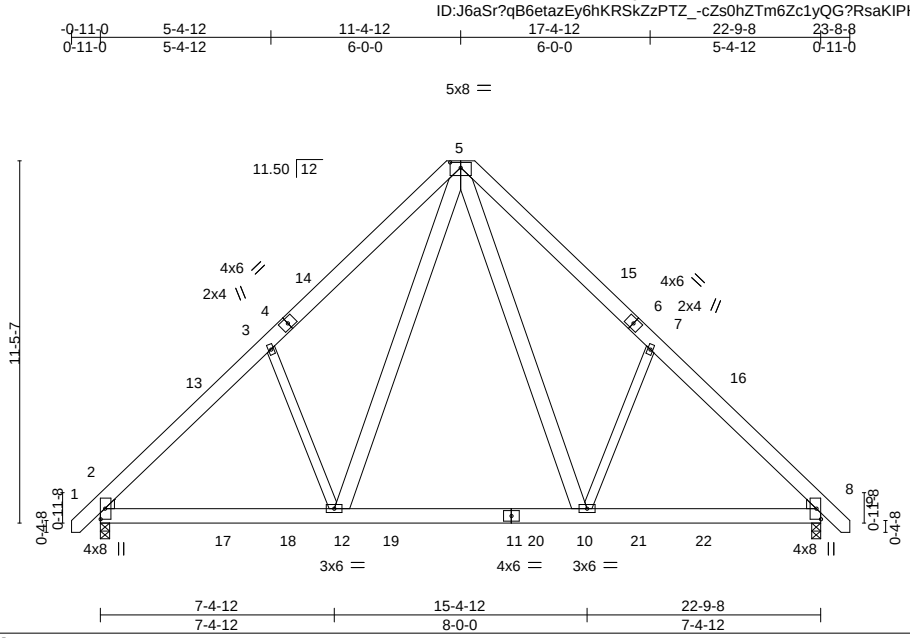


Plate Offsets (X,Y)-- [5:0-4-0,0-2-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.18 | Vert(LL) | -0.05 | 10-12 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.26 | Vert(CT) | -0.07 | 10-12 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.27 | Horz(CT) | 0.01 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | Wind(LL) | 0.01 | 2-12 | >999 | 240 | Weight: 204 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
7-10,3-12: 2x4 SP No.2
WEDGE
Left: 2x4 SP No.2 , Right: 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=0-3-8, 8=0-3-8
Max Horz 2=-280(LC 10)
Max Uplift 2=-42(LC 12), 8=-42(LC 13)
Max Grav 2=1057(LC 19), 8=1057(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1210/251, 3-5=-1109/415, 5-7=-1110/415, 7-8=-1210/251
BOT CHORD 2-12=-91/943, 10-12=0/619, 8-10=-42/811
WEBS 5-10=-201/658, 7-10=-406/304, 5-12=-201/657, 3-12=-406/304

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-6 to 3-7-7, Interior(1) 3-7-7 to 11-4-12, Exterior(2) 11-4-12 to 15-9-9, Interior(1) 15-9-9 to 23-6-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | C1-GR | COMMON GIRDER | 1 | 2 | E16391034 |
| | | | | | Job Reference (optional) |

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ID:J6aSr?qB6etazEy6hKRSkZzPTZ_-08Y9JbWePU_bpu?a6?71w2vITB?wBcg4vu3VEQyLENL

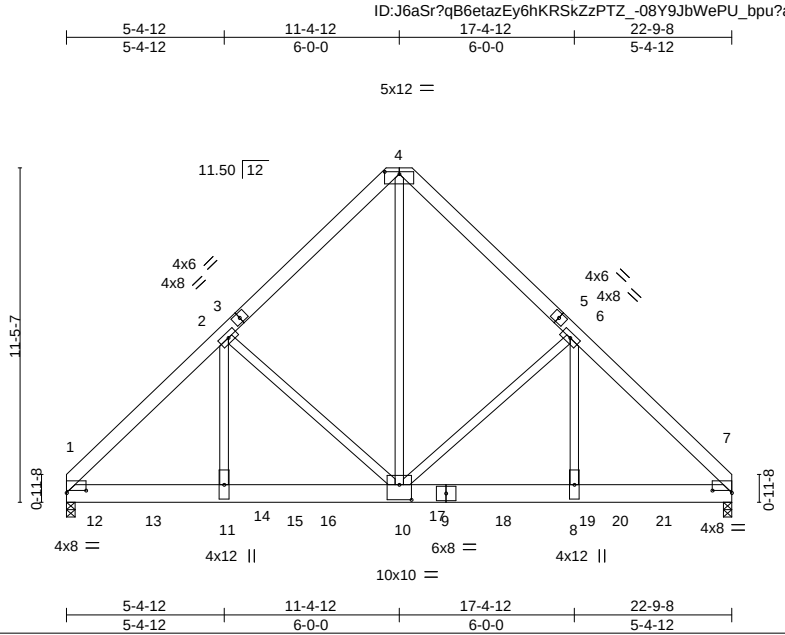


Plate Offsets (X,Y)-- [1:0-8-0,0-0-15], [4:0-6-0,0-1-0], [7:0-8-0,0-0-15], [10:0-5-0,0-6-4]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.28 | Vert(LL) | -0.10 | 8-10 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.40 | Vert(CT) | -0.17 | 8-10 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.94 | Horz(CT) | 0.04 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | Wind(LL) | 0.05 | 8-10 | >999 | 240 | Weight: 396 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x6 SP No.1
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-5-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=0-3-8, 7=0-3-8
Max Horz 1=-270(LC 23)
Max Uplift 1=-225(LC 9), 7=-237(LC 8)
Max Grav 1=7977(LC 2), 7=8527(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-8698/296, 2-4=-5745/316, 4-6=-5744/316, 6-7=-8803/299
BOT CHORD 1-11=-233/5962, 10-11=-233/5971, 8-10=-139/6041, 7-8=-139/6032
WEBS 4-10=-299/7498, 6-10=-2640/260, 6-8=-42/3902, 2-10=-2545/257, 2-11=-37/3758

**NOTES-**
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=225, 7=237.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1246 lb down and 39 lb up at 0-10-4, 1243 lb down and 42 lb up at 2-10-4, 1243 lb down and 42 lb up at 4-10-4, 1243 lb down and 42 lb up at 6-10-4, 1243 lb down and 42 lb up at 8-10-4, 1243 lb down and 42 lb up at 10-10-4, 1243 lb down and 42 lb up at 12-10-4, 1243 lb down and 42 lb up at 14-10-4, 1243 lb down and 42 lb up at 16-10-4, 1243 lb down and 42 lb up at 18-10-4, and 1243 lb down and 42 lb up at 20-4-4, and 1250 lb down and 35 lb up at 22-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15


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Continued on page 2



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818 Soundside Road
Edenton, NC 27932

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 1-7=-20

Concentrated Loads (lb)

Vert: 9=-969(B) 7=-976(B) 12=-972(B) 13=-969(B) 14=-969(B) 15=-969(B) 16=-969(B) 17=-969(B) 18=-969(B) 19=-969(B) 20=-969(B) 21=-969(B)




818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | C1GE | COMMON SUPPORTED GAB | 1 | 1 | E16391035 |
| | | | | | Job Reference (optional) |

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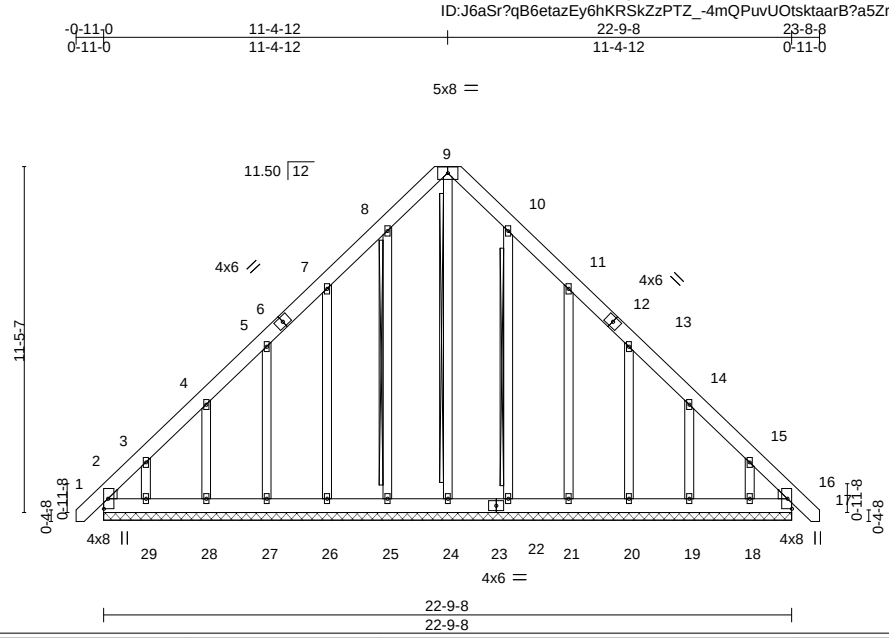


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.05 | Vert(LL) | -0.00 | 16 | n/r | 120 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 16 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.18 | Horz(CT) | 0.01 | 16 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 227 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.2 , Right: 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.
WEBS T-Brace: 2x4 SPF No.2 - 9-24, 8-25, 10-22
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

**REACTIONS.** All bearings 22-9-8.
(lb) - Max Horz 2=-350(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 25, 22 except 2=-170(LC 10), 26=-147(LC 12), 27=-130(LC 12), 28=-137(LC 12), 29=-210(LC 12), 21=-150(LC 13), 20=-130(LC 13), 19=-136(LC 13), 18=-200(LC 13), 16=-103(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 24, 25, 26, 27, 28, 29, 22, 21, 20, 19, 18 except 2=362(LC 12), 16=317(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-506/298, 3-4=-336/228, 14-15=-285/175, 15-16=-449/302
BOT CHORD 2-29=-218/336, 28-29=-220/337, 27-28=-220/337, 26-27=-221/337, 25-26=-221/337, 24-25=-221/337, 22-24=-221/337, 21-22=-221/337, 20-21=-221/337, 19-20=-220/337, 18-19=-220/336, 16-18=-218/335

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 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) 25, 22 except (jt=lb) 2=170, 26=147, 27=130, 28=137, 29=210, 21=150, 20=130, 19=136, 18=200, 16=103.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.


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| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | D1 | COMMON | 5 | 1 | E16391036 |
| | | | | | Job Reference (optional) |

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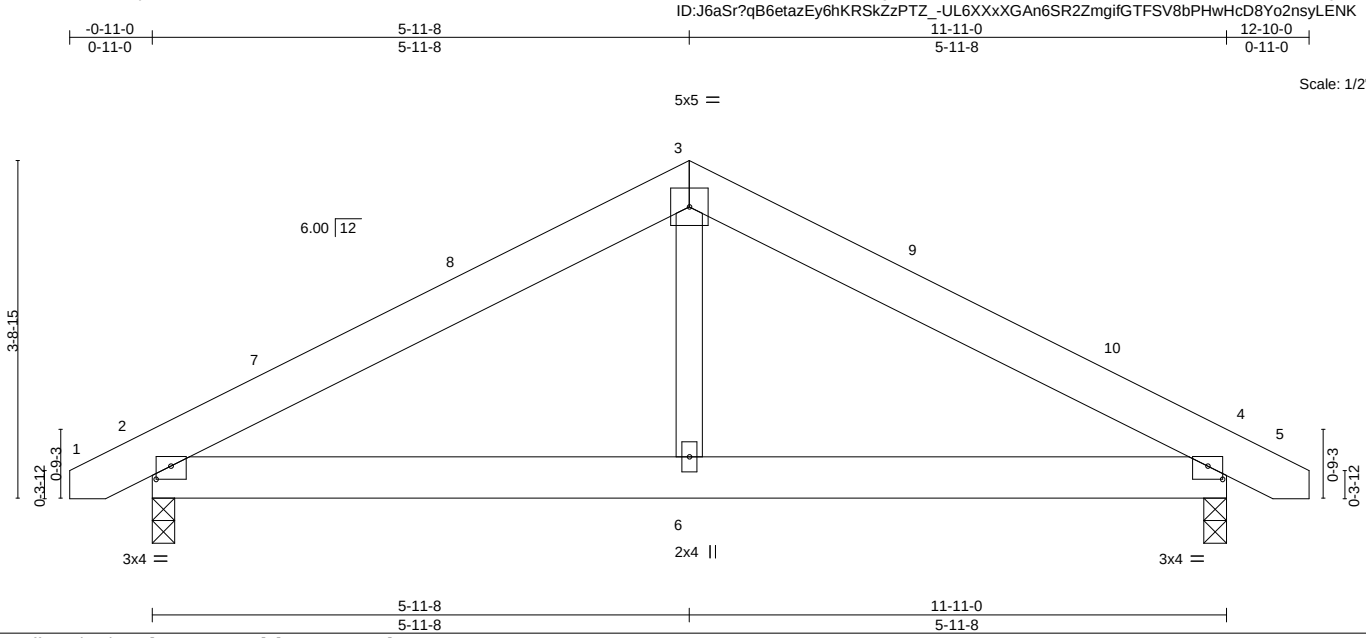


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [4:0-2-0,0-1-12]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.16 | Vert(LL) | 0.02 | 2-6 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.13 | Vert(CT) | -0.02 | 2-6 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.01 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 69 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 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=0-3-0, 4=0-3-0
Max Horz 2=43(LC 11)
Max Uplift 2=-106(LC 9), 4=-106(LC 8)
Max Grav 2=517(LC 1), 4=517(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-626/654, 3-4=-626/654
BOT CHORD 2-6=-466/475, 4-6=-466/475
WEBS 3-6=-364/279

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 5-11-8, Exterior(2) 5-11-8 to 10-4-5, Interior(1) 10-4-5 to 12-7-10 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=106, 4=106.


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| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | D1GE | GABLE | 1 | 1 | E16391037 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:42 2021 Page 1
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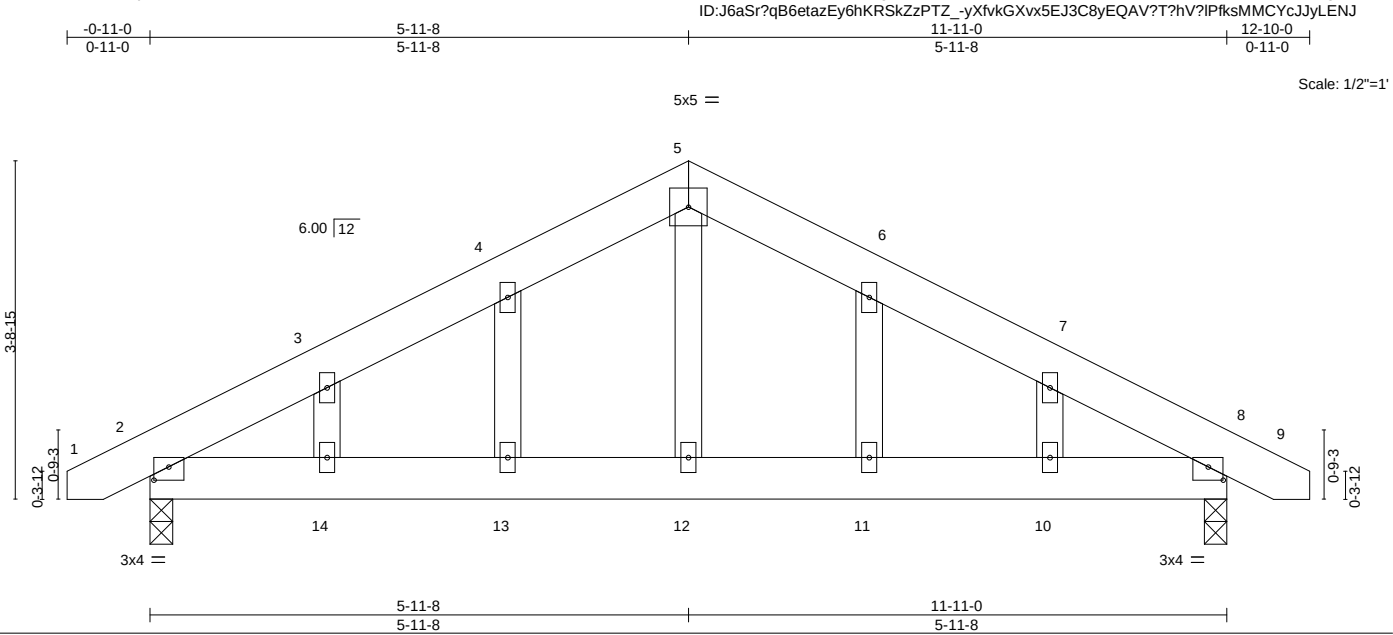


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [8:0-2-0,0-1-12]

| LOADING (psf) | | SPACING- 2-0-0 | | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.12 | Vert(LL) | -0.01 | 13-14 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.14 | Vert(CT) | -0.02 | 13-14 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.01 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | Wind(LL) | 0.02 | 10-11 | >999 | 240 | Weight: 77 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x6 SP No.1 |
| BOT CHORD | 2x6 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. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS.** (size) 2=0-3-0, 8=0-3-0
Max Horz 2=68(LC 12)
Max Uplift 2=-137(LC 9), 8=-137(LC 8)
Max Grav 2=517(LC 1), 8=517(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-623/674, 3-4=-555/669, 4-5=-530/694, 5-6=-530/694, 6-7=-555/669, 7-8=-623/674
BOT CHORD 2-14=-490/476, 13-14=-490/476, 12-13=-490/476, 11-12=-490/476, 10-11=-490/476, 8-10=-490/476
WEBS 5-12=-372/227

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=137, 8=137.


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TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | M1 | MONOPITCH | 11 | 1 | E16391038 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:42 2021 Page 1
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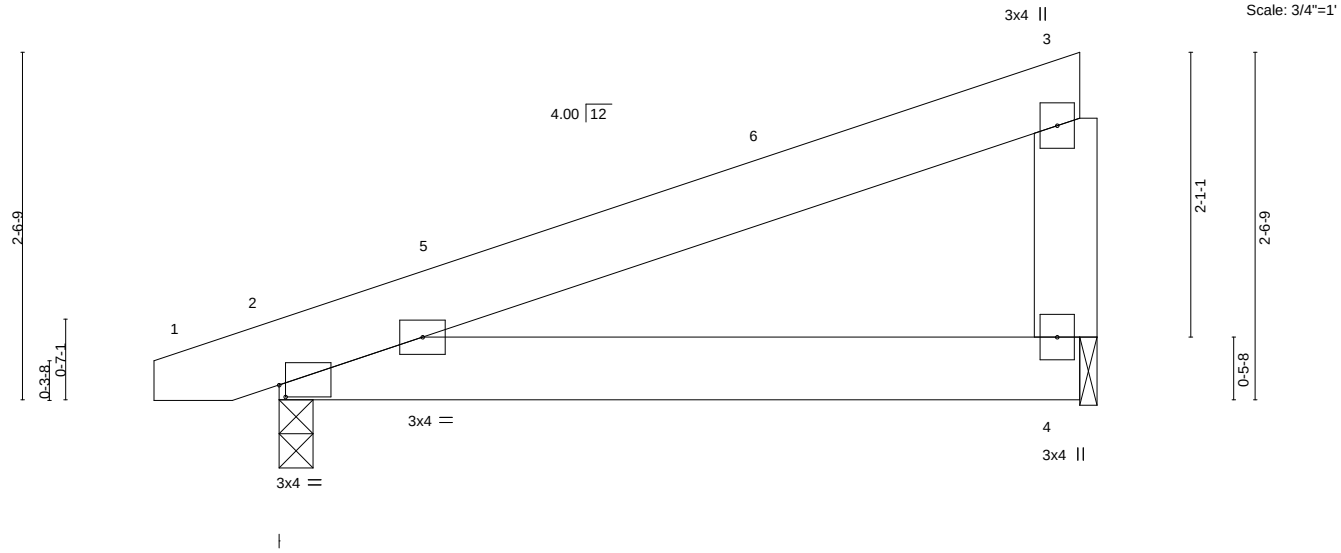


Plate Offsets (X,Y)-- [2:0-0-9,0-1-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.19 | Vert(LL) | -0.01 | 2-4 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.12 | Vert(CT) | -0.03 | 2-4 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-P | | Wind(LL) | 0.03 | 2-4 | >999 | 240 | Weight: 34 lb | FT = 20% |

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

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

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8
Max Horz 2=71(LC 8)
Max Uplift 2=-104(LC 8), 4=-97(LC 8)
Max Grav 2=274(LC 1), 4=223(LC 1)

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

**NOTES-**
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-9 to 3-9-4, Interior(1) 3-9-4 to 5-9-4 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) 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.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=104.


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Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | M1GE | GABLE | 1 | 1 | E16391039 |
| | | | | | Job Reference (optional) |

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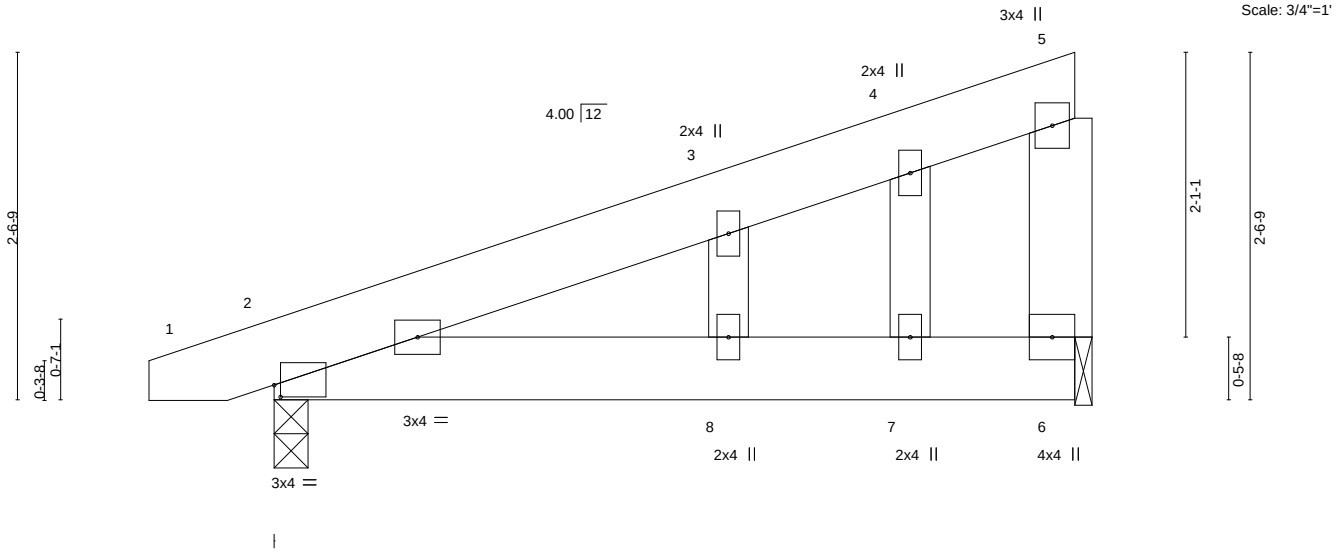


Plate Offsets (X,Y)-- [2:0-0-9,0-1-1]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.09 | Vert(LL) | 0.02 | 2-8 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | -0.02 | 8 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.01 | Horz(CT) | -0.00 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 37 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1
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.** (size) 2=0-3-0, 6=0-1-8
Max Horz 2=101(LC 8)
Max Uplift 2=-151(LC 8), 6=-142(LC 8)
Max Grav 2=274(LC 1), 6=223(LC 1)

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

**NOTES-**
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 1-4-0 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=151, 6=142.


November 9,2021




TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | PB | Piggyback | 24 | 1 | E16391040 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:44 2021 Page 1
ID:J6aSr?qB6etazEy6hKRSkZzPTZ_-uvng9yZ9TiU1IVILLrCz5u4?doRi7evfqV1jNByLENH

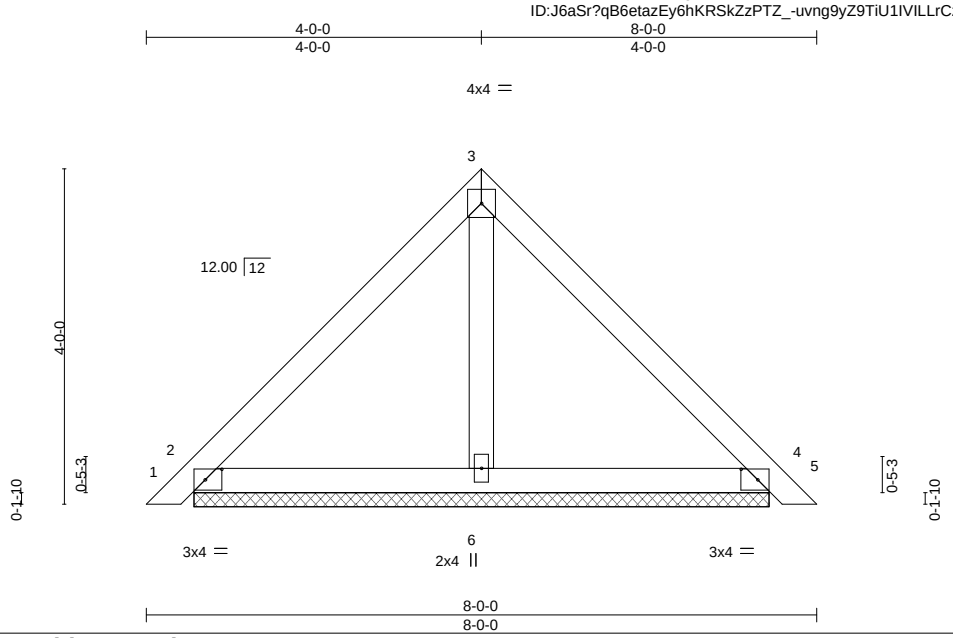


Plate Offsets (X,Y)-- [2:0-2-6,0-1-8], [4:0-2-6,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.20 | Vert(LL) | 0.01 | 5 | n/r | 120 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.09 | Vert(CT) | 0.01 | 5 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-P | | | | | | | Weight: 32 lb | FT = 20% |

**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=6-10-6, 4=6-10-6, 6=6-10-6
Max Horz 2=-114(LC 10)
Max Uplift 2=-65(LC 13), 4=-71(LC 13)
Max Grav 2=190(LC 1), 4=190(LC 1), 6=214(LC 3)

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

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


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818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | V1 | VALLEY | 1 | 1 | E16391041 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:45 2021 Page 1
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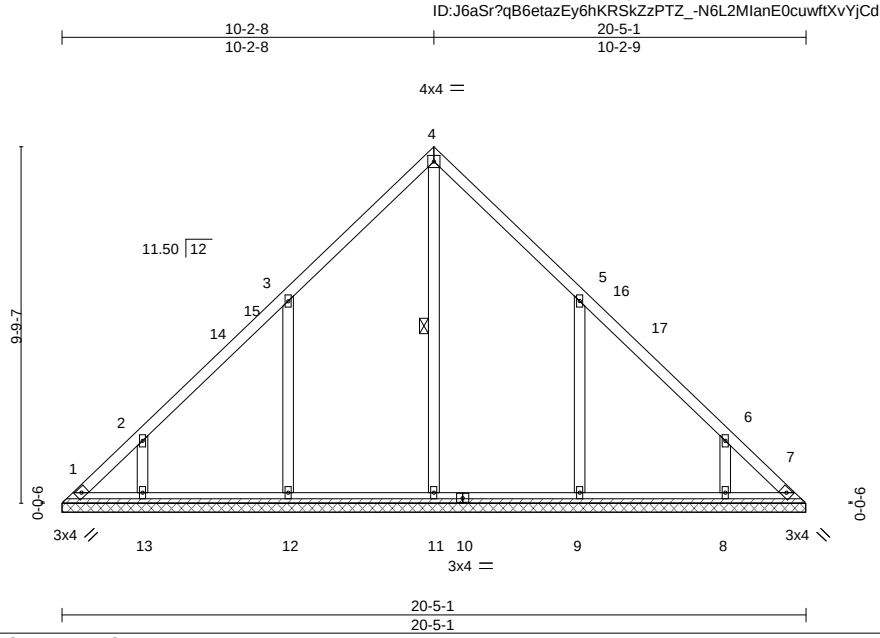


Plate Offsets (X,Y)-- [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.16 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.19 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.21 | Horz(CT) | 0.00 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 105 lb | FT = 20% |

**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.
WEBS 1 Row at midpt 4-11

**REACTIONS.** All bearings 20-5-1.
(lb) - Max Horz 1=226(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 12=-173(LC 12), 13=-126(LC 12), 9=-173(LC 13), 8=-126(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=440(LC 22), 12=486(LC 19), 13=285(LC 19), 9=485(LC 20), 8=285(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-12=-393/294, 2-13=-299/243, 5-9=-393/294, 6-8=-299/243

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-6 to 4-9-2, Interior(1) 4-9-2 to 10-2-8, Exterior(2) 10-2-8 to 14-7-5, Interior(1) 14-7-5 to 20-0-11 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) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 12=173, 13=126, 9=173, 8=126.


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818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | V2 | VALLEY | 1 | 1 | E16391042 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:46 2021 Page 1
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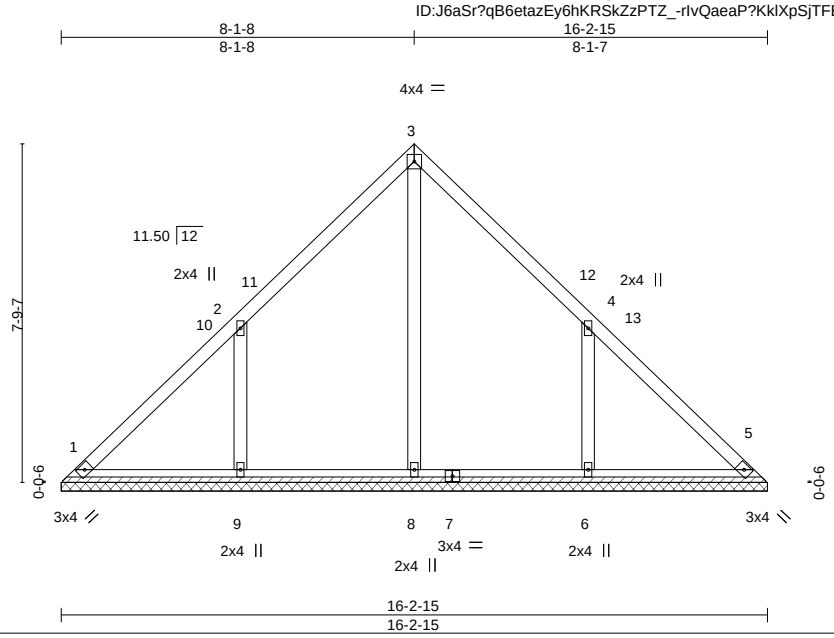


Scale = 1:49.9

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

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.17 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.19 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.13 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 77 lb | FT = 20% |

**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.** All bearings 16-2-15.
(lb) - Max Horz 1=-178(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-182(LC 12), 6=-182(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=418(LC 22), 9=503(LC 19), 6=503(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-406/302, 4-6=-406/302

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-6 to 4-9-2, Interior(1) 4-9-2 to 8-1-8, Exterior(2) 8-1-8 to 12-6-4, Interior(1) 12-6-4 to 15-10-9 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=182, 6=182.


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818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | V3 | VALLEY | 1 | 1 | E16391043 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:47 2021 Page 1
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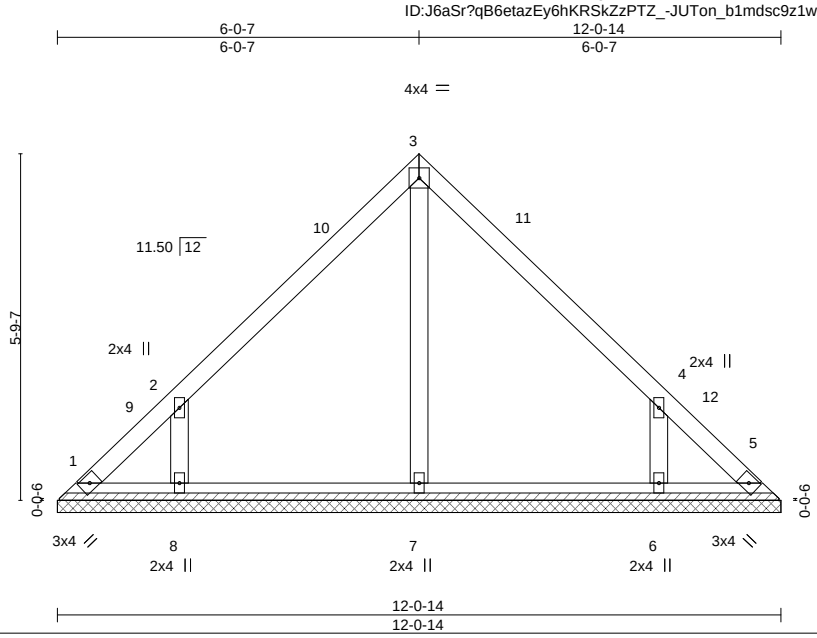


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.13 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.09 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 53 lb | FT = 20% |

**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.** All bearings 12-0-14.
(lb) - Max Horz 1=-130(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-150(LC 12), 6=-150(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=334(LC 19), 6=334(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-344/282, 4-6=-344/282

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-6 to 4-9-2, Interior(1) 4-9-2 to 6-0-7, Exterior(2) 6-0-7 to 10-5-4, Interior(1) 10-5-4 to 11-8-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=150, 6=150.


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818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | V4 | VALLEY | 1 | 1 | E16391044 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:48 2021 Page 1
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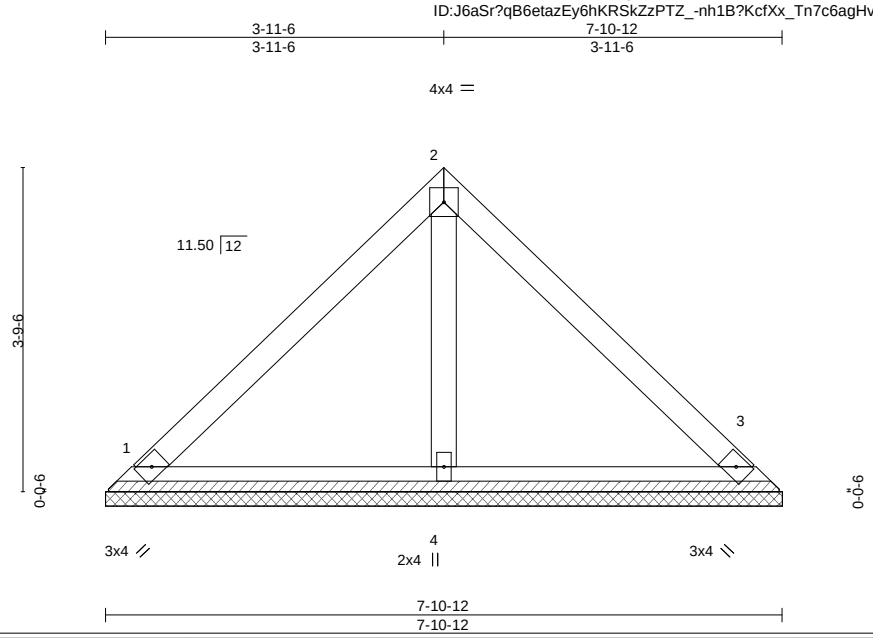


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.21 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-P | | | | | | | Weight: 31 lb | FT = 20% |

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

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

**REACTIONS.** (size) 1=7-10-12, 3=7-10-12, 4=7-10-12
Max Horz 1=-82(LC 8)
Max Uplift 1=-30(LC 13), 3=-31(LC 13)
Max Grav 1=173(LC 1), 3=173(LC 1), 4=228(LC 1)

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

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


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818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4074 | V5 | VALLEY | 1 | 1 | E16391045 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:12:48 2021 Page 1
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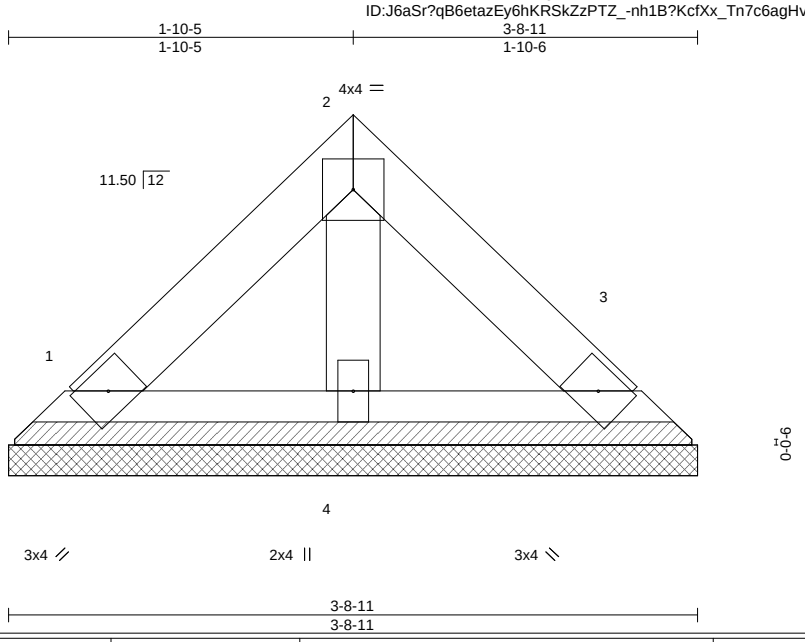


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.03 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.01 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-P | | | | | | | Weight: 13 lb | FT = 20% |

**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 3-8-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-8-11, 3=3-8-11, 4=3-8-11
Max Horz 1=34(LC 9)
Max Uplift 1=-12(LC 13), 3=-13(LC 13)
Max Grav 1=72(LC 1), 3=72(LC 1), 4=95(LC 1)

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

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


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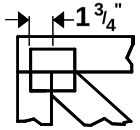
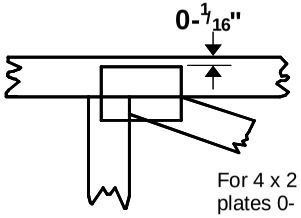
818 Soundside Road
Edenton, NC 27932

# Symbols

### PLATE LOCATION AND ORIENTATION




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




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

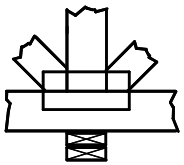
4 x 4

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

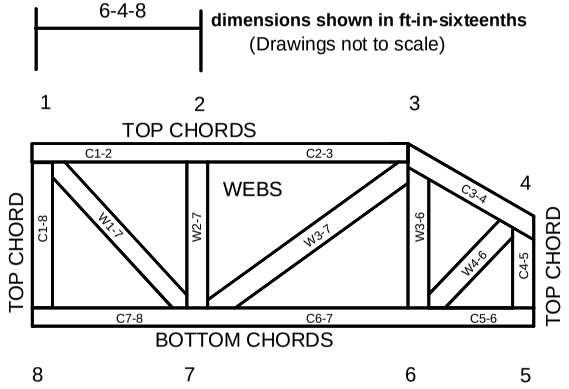


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

**Industry Standards:**

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System




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

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

### PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

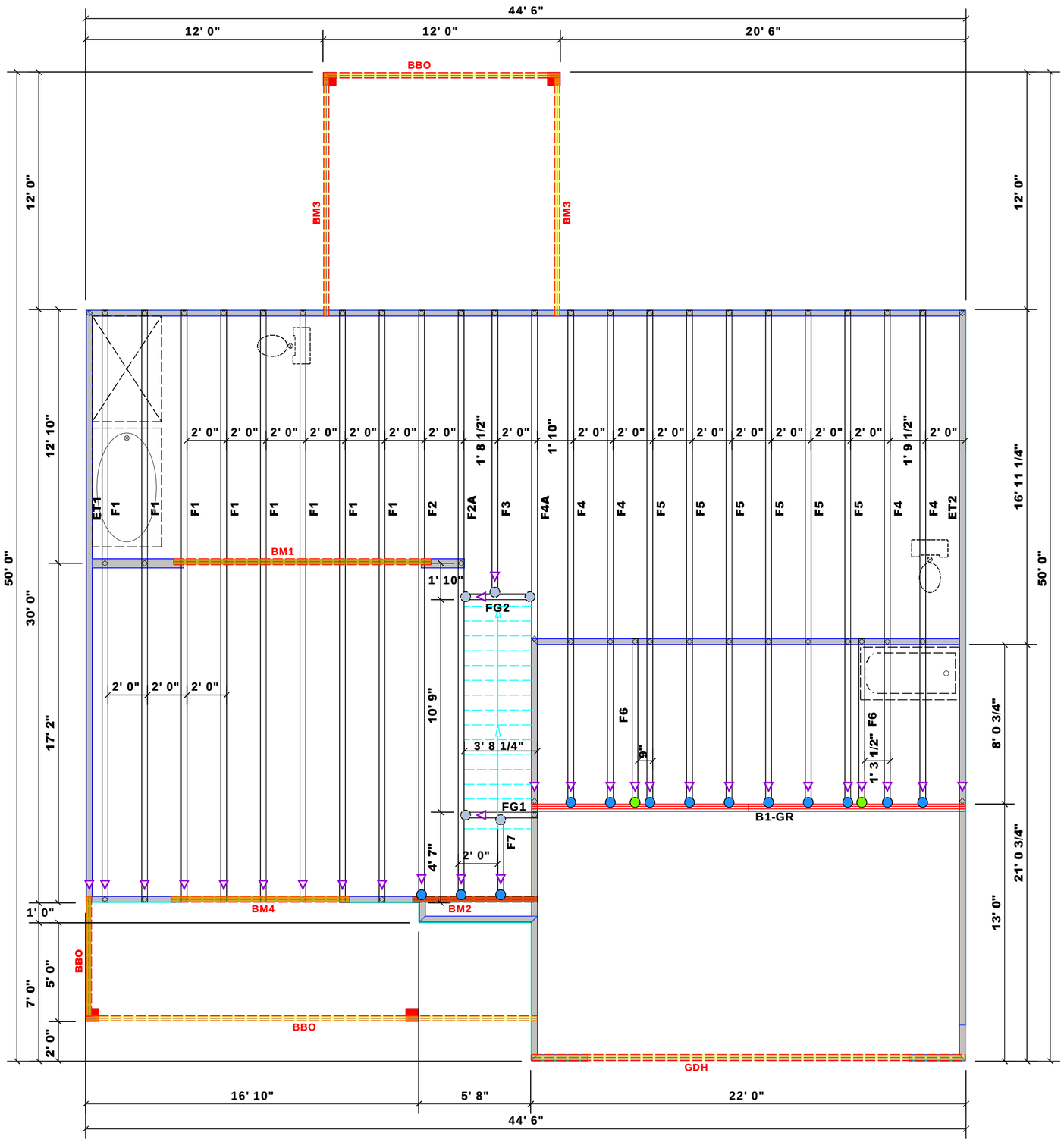


MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

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




| Products | | | | | |
|---|---|---|---|---|---|
| PlotID | Length | Product | Plies | Net Qty | Fab Type |
| BM1 | 14' 0" | 1-3/4"x 14" LVL Kerto-S | 2 | 2 | FF |
| BM2 | 8' 0" | 1-3/4"x 14" LVL Kerto-S | 2 | 2 | FF |
| BM3 | 14' 0" | 2x12 SPF No.2 | 2 | 4 | FF |
| BM4 | 10' 0" | 1-3/4"x 9-1/4" LVL Kerto-S | 2 | 2 | FF |
| GDH | 22' 0" | 1-3/4"x 11-7/8" LVL Kerto-S | 2 | 2 | FF |

1 Truss Placement Plan
Scale: 1/4"=1'

| Dimension Notes |
|---|
| 1. All exterior wall to wall dimensions are to face of sheathing unless noted otherwise<br>2. All interior wall dimensions are to face of frame wall unless noted otherwise<br>3. All exterior wall to truss dimensions are to face of frame wall unless noted otherwise |

All Walls Shown Are Considered Load Bearing

| Connector Information | | | | | Nail Information | |
|---|---|---|---|---|---|---|
| Sym | Product | Manuf | Qty | Supported Member | Header | Truss |
| ● | HUS410 | USP | 13 | Varies | 16d/3-1/2" | 16d/3-1/2" |
| ● | MSH422 | USP | 5 | Varies | 10d/3" | 10d/3" |
| ● | THD410 | USP | 2 | Varies | 16d/3-1/2" | 10d/3" |

| Plumbing Drop Notes |
|---|
| 1. Plumbing drop locations shown are NOT exact.<br>2. Contractor to verify ALL plumbing drop locations prior to setting Floor Trusses.<br>3. Adjust spacing as needed not to exceed 24"oc. |


COMTECH
ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444


Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature _____
David Landry

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

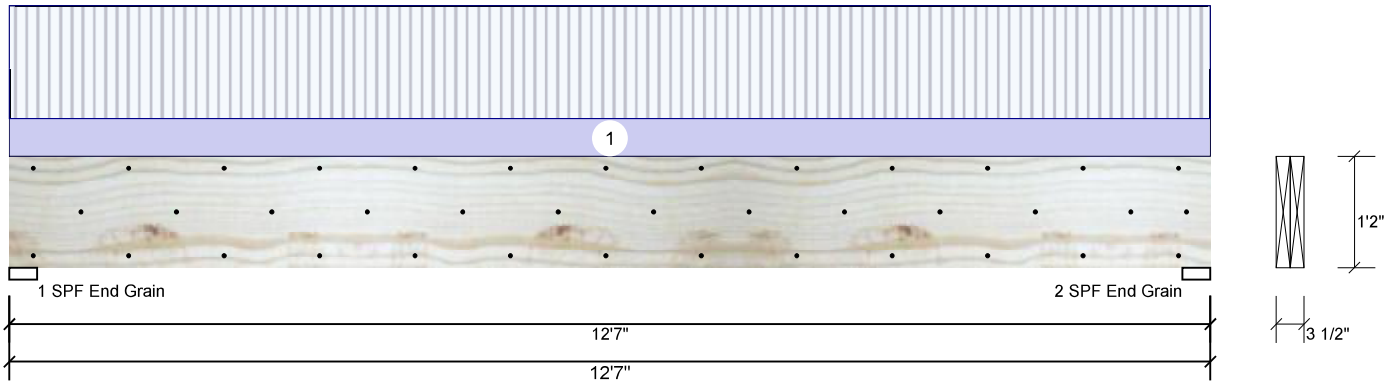
| END REACTION (UP TO) | REQ'D STUDS FOR (2) PLY HEADER | END REACTION (UP TO) | REQ'D STUDS FOR (3) PLY HEADER | END REACTION (UP TO) | REQ'D STUDS FOR (4) PLY HEADER |
|---|---|---|---|---|---|
| 1700 | 1 | 2550 | 1 | 3400 | 1 |
| 3400 | 2 | 5100 | 2 | 6800 | 2 |
| 5100 | 3 | 7650 | 3 | 10200 | 3 |
| 6800 | 4 | 10200 | 4 | 13600 | 4 |
| 8500 | 5 | 12750 | 5 | 17000 | 5 |
| 10200 | 6 | 15300 | 6 | | |
| 11900 | 7 | | | | |
| 13600 | 8 | | | | |
| 15300 | 9 | | | | |

| | |
|---|---|
| BUILDER | Benjamin Stout Real Estate |
| JOB NAME | Lot 48 Liberty Meadows |
| PLAN | The Ashville / 2GRF, CP |
| SEAL DATE | N/A |
| QUOTE # | |
| JOB # | J0822-4075 |
| COUNTY | Harnett Co. / Harnett |
| ADDRESS | 60 Melvill Lane |
| MODEL | Floor |
| DATE REV. | 08/10/22 |
| DRAWN BY | David Landry |
| SALESMAN | Marshall Naylor |

| | | | |
|---|---|---|---|
| Client: | Benjamin Stout Real Estate | Date: | 8/10/2022 |
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

# BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level




## Member Information

| | | | |
|---|---|---|---|
| Type: | Girder | Application: | Floor |
| Plies: | 2 | Design Method: | ASD |
| Moisture Condition: | Dry | Building Code: | IBC/IRC 2015 |
| Deflection LL: | 480 | Load Sharing: | No |
| Deflection TL: | 360 | Deck: | Not Checked |
| Importance: | Normal - II | | |
| Temperature: | Temp <= 100°F | | |

## Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind | Const |
|---|---|---|---|---|---|---|
| 1 | Vertical | 4568 | 1591 | 0 | 0 | 0 |
| 2 | Vertical | 4568 | 1591 | 0 | 0 | 0 |

## Bearings

| Bearing | Length | Dir. | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|---|---|---|---|---|---|---|---|
| 1 - SPF End Grain | 3.500" | Vert | 60% | 1591 / 4568 | 6159 | L | D+L |
| 2 - SPF End Grain | 3.500" | Vert | 60% | 1591 / 4568 | 6159 | L | D+L |

## Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---|---|---|---|---|---|---|
| Moment | 17989 ft-lb | 6'3 1/2" | 26999 ft-lb | 0.666 (67%) | D+L | L |
| Unbraced | 17989 ft-lb | 6'3 1/2" | 18014 ft-lb | 0.999 (100%) | D+L | L |
| Shear | 4744 lb | 11'1 1/2" | 10453 lb | 0.454 (45%) | D+L | L |
| LL Defl inch | 0.252 (L/578) | 6'3 1/2" | 0.303 (L/480) | 0.831 (83%) | L | L |
| TL Defl inch | 0.340 (L/428) | 6'3 1/2" | 0.404 (L/360) | 0.840 (84%) | D+L | L |

## Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on the bottom edge only.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at a maximum of 5'5 1/16" o.c.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

| ID | Load Type | Location | Trib Width | Side | Dead 0.9 | Live 1 | Snow 1.15 | Wind 1.6 | Const. 1.25 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Uniform | | | Top | 242 PLF | 726 PLF | 0 PLF | 0 PLF | 0 PLF | F1 |
| | Self Weight | | | | 11 PLF | | | | | |

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

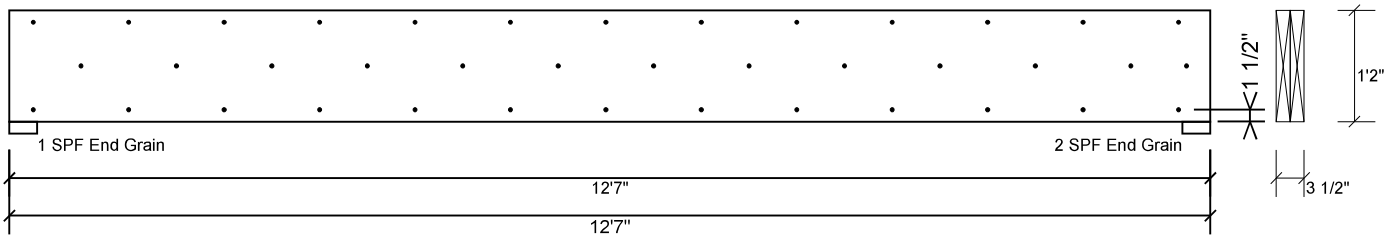
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

| | | | |
|---|---|---|---|
| Client: | Benjamin Stout Real Estate | Date: | 8/10/2022 |
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

## BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level




### Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

| | |
|---|---|
| Capacity | 0.0 % |
| Load | 0.0 PLF |
| Yield Limit per Foot | 245.6 PLF |
| Yield Limit per Fastener | 81.9 lb. |
| Yield Mode | IV |
| Edge Distance | 1 1/2" |
| Min. End Distance | 3" |
| Load Combination | |
| Duration Factor | 1.00 |

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

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Comtech, Inc.
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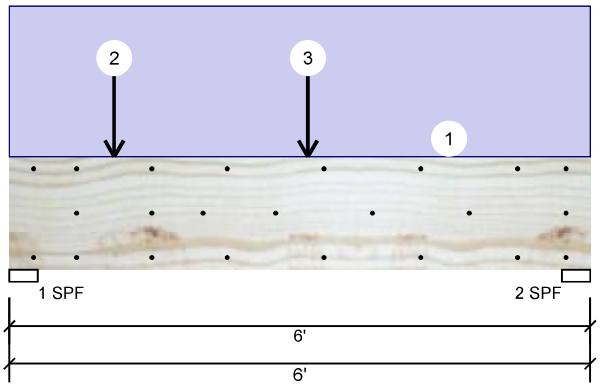
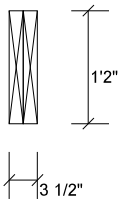
910-864-TRUS

| | | | |
|---|---|---|---|
| Client: | Benjamin Stout Real Estate | Date: | 8/10/2022 |
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

# BM2 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level




## Member Information

| | | | |
|---|---|---|---|
| Type: | Girder | Application: | Floor |
| Plies: | 2 | Design Method: | ASD |
| Moisture Condition: | Dry | Building Code: | IBC/IRC 2015 |
| Deflection LL: | 480 | Load Sharing: | No |
| Deflection TL: | 360 | Deck: | Not Checked |
| Importance: | Normal - II | | |
| Temperature: | Temp <= 100°F | | |

## Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind | Const |
|---|---|---|---|---|---|---|
| 1 | Vertical | 678 | 709 | 0 | 0 | 0 |
| 2 | Vertical | 189 | 546 | 0 | 0 | 0 |

## Bearings

| Bearing | Length | Dir. | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|---|---|---|---|---|---|---|---|
| 1 - SPF | 3.500" | Vert | 27% | 709 / 678 | 1387 | L | D+L |
| 2 - SPF | 3.500" | Vert | 14% | 546 / 189 | 734 | L | D+L |

## Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---|---|---|---|---|---|---|
| Moment | 1305 ft-lb | 2'8 7/16" | 26999 ft-lb | 0.048 (5%) | D+L | L |
| Unbraced | 1305 ft-lb | 2'8 7/16" | 17702 ft-lb | 0.074 (7%) | D+L | L |
| Shear | 1165 lb | 1'5 1/2" | 10453 lb | 0.111 (11%) | D+L | L |
| LL Defl inch | 0.003 (L/21799) | 2'7 3/8" | 0.139 (L/480) | 0.022 (2%) | L | L |
| TL Defl inch | 0.008 (L/8727) | 2'10 1/16" | 0.185 (L/360) | 0.041 (4%) | D+L | L |

## Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
5 Girders are designed to be supported on the bottom edge only.
6 Top loads must be supported equally by all plies.
7 Top must be laterally braced at end bearings.
8 Bottom must be laterally braced at end bearings.
9 Lateral slenderness ratio based on single ply width.

| ID | Load Type | Location | Trib Width | Side | Dead 0.9 | Live 1 | Snow 1.15 | Wind 1.6 | Const. 1.25 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Uniform | | | Top | 150 PLF | 0 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Above |
| 2 | Point | 1-1-0 | | Far Face | 238 lb | 714 lb | 0 lb | 0 lb | 0 lb | F2A |
| 3 | Point | 3-1-0 | | Far Face | 51 lb | 153 lb | 0 lb | 0 lb | 0 lb | F7 |
| | Self Weight | | | | 11 PLF | | | | | |

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
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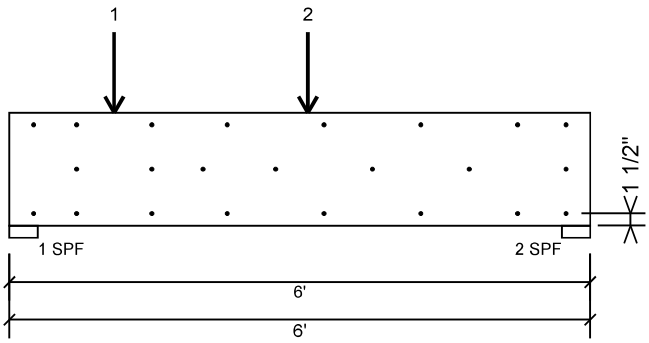
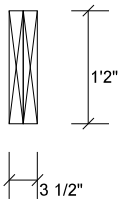
| | | | |
|---|---|---|---|
| Client: | Benjamin Stout Real Estate | Date: | 8/10/2022 |
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

# BM2 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level




## Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6".

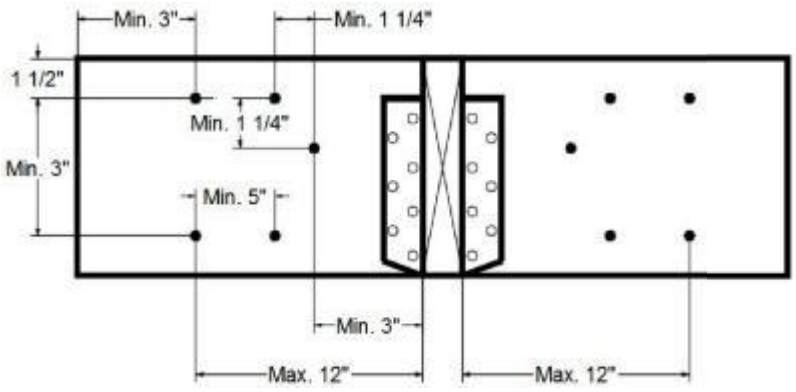
| | |
|---|---|
| Capacity | 0.0 % |
| Load | 0.0 PLF |
| Yield Limit per Foot | 245.6 PLF |
| Yield Limit per Fastener | 81.9 lb. |
| Yield Mode | IV |
| Edge Distance | 1 1/2" |
| Min. End Distance | 3" |
| Load Combination | |
| Duration Factor | 1.00 |

## Concentrated Load

Fasten at concentrated side load at 1-1-0 with a minimum of (6) – 10d Box nails (.128x3") in the pattern shown.

| | |
|---|---|
| Capacity | 96.9 % |
| Load | 476.0lb. |
| Total Yield Limit | 491.0 lb. |
| Cg | 0.9998 |
| Yield Limit per Fastener | 81.9 lb. |
| Yield Mode | IV |
| Load Combination | D+L |
| Duration Factor | 1.00 |

### Min/Max fastener distances for Concentrated Side Loads




**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

Metsä Wood
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| | | | |
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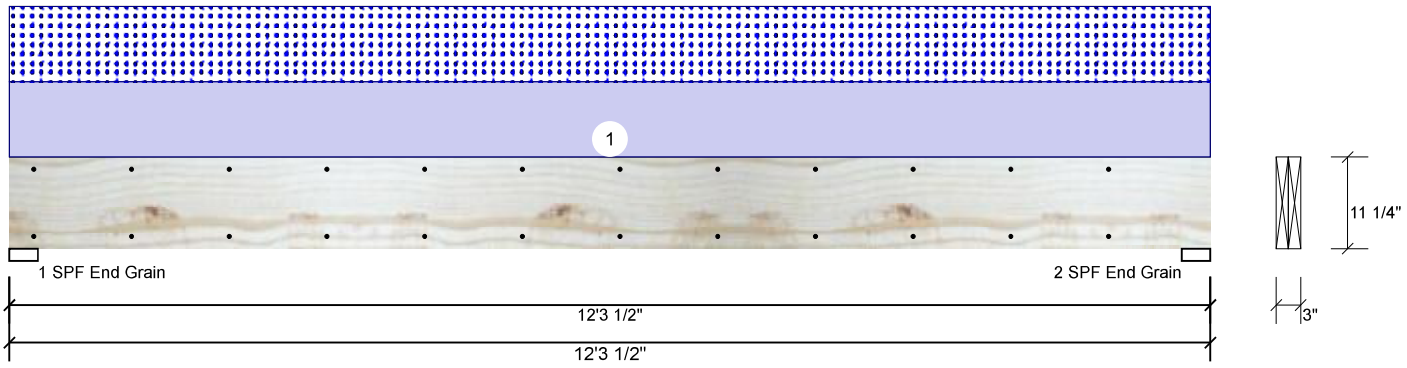
| Client: | Benjamin Stout Real Estate | Date: | 8/10/2022 |
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

# BM3 S-P-F #2 2.000" X 12.000" 2-Ply - PASSED

Level: Level




## Member Information

| | | | |
|---|---|---|---|
| Type: | Girder | Application: | Floor |
| Plies: | 2 | Design Method: | ASD |
| Moisture Condition: | Dry | Building Code: | IBC/IRC 2015 |
| Deflection LL: | 480 | Load Sharing: | No |
| Deflection TL: | 360 | Deck: | Not Checked |
| Importance: | Normal - II | | |
| Temperature: | Temp <= 100°F | | |

## Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind | Const |
|---|---|---|---|---|---|---|
| 1 | Vertical | 0 | 799 | 799 | 0 | 0 |
| 2 | Vertical | 0 | 799 | 799 | 0 | 0 |

## Bearings

| Bearing | Length | Dir. | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|---|---|---|---|---|---|---|---|
| 1 - SPF End Grain | 3.500" | Vert | 36% | 799 / 799 | 1598 | L | D+S |
| 2 - SPF End Grain | 3.500" | Vert | 36% | 799 / 799 | 1598 | L | D+S |

## Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---|---|---|---|---|---|---|
| Moment | 4551 ft-lb | 6'1 3/4" | 5306 ft-lb | 0.858 (86%) | D+S | L |
| Unbraced | 4551 ft-lb | 6'1 3/4" | 4552 ft-lb | 1.000 (100%) | D+S | L |
| Shear | 1278 lb | 1'2 3/4" | 3493 lb | 0.366 (37%) | D+S | L |
| LL Defl inch | 0.115 (L/1234) | 6'1 3/4" | 0.296 (L/480) | 0.389 (39%) | S | L |
| TL Defl inch | 0.230 (L/617) | 6'1 3/4" | 0.394 (L/360) | 0.584 (58%) | D+S | L |

## Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3. Refer to last page of calculations for fasteners required for specified loads.
4. Girders are designed to be supported on the bottom edge only.
5. Top loads must be supported equally by all plies.
6. Top must be laterally braced at a maximum of 6'1 3/4" o.c.
7. Bottom must be laterally braced at end bearings.
8. Lateral slenderness ratio based on single ply width.

| ID | Load Type | Location | Trib Width | Side | Dead 0.9 | Live 1 | Snow 1.15 | Wind 1.6 | Const. 1.25 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Uniform | | | Top | 130 PLF | 0 PLF | 130 PLF | 0 PLF | 0 PLF | D1 |

This design is valid until 11/3/2024

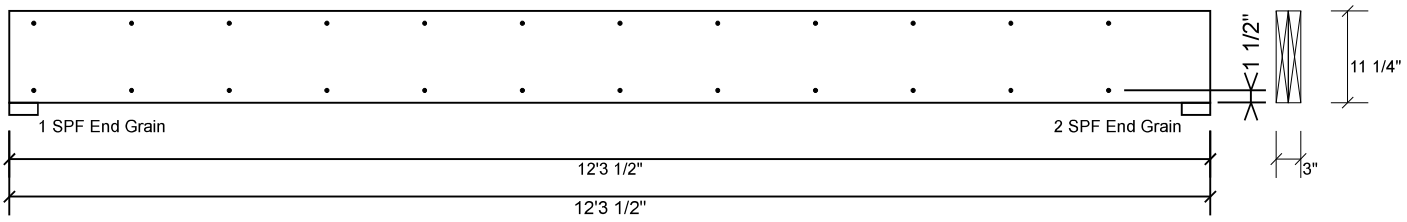
Manufacturer Info

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

| | | | |
|---|---|---|---|
| Client: | Benjamin Stout Real Estate | Date: | 8/10/2022 |
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

# BM3 S-P-F #2 2.000" X 12.000" 2-Ply - PASSED

Level: Level




## Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

| | |
|---|---|
| Capacity | 0.0 % |
| Load | 0.0 PLF |
| Yield Limit per Foot | 157.4 PLF |
| Yield Limit per Fastener | 78.7 lb. |
| Yield Mode | IV |
| Edge Distance | 1 1/2" |
| Min. End Distance | 3" |
| Load Combination | |
| Duration Factor | 1.00 |

**Manufacturer Info**

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Fayetteville, NC
USA
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910-864-TRUS

This design is valid until 11/3/2024

| | | | |
|---|---|---|---|
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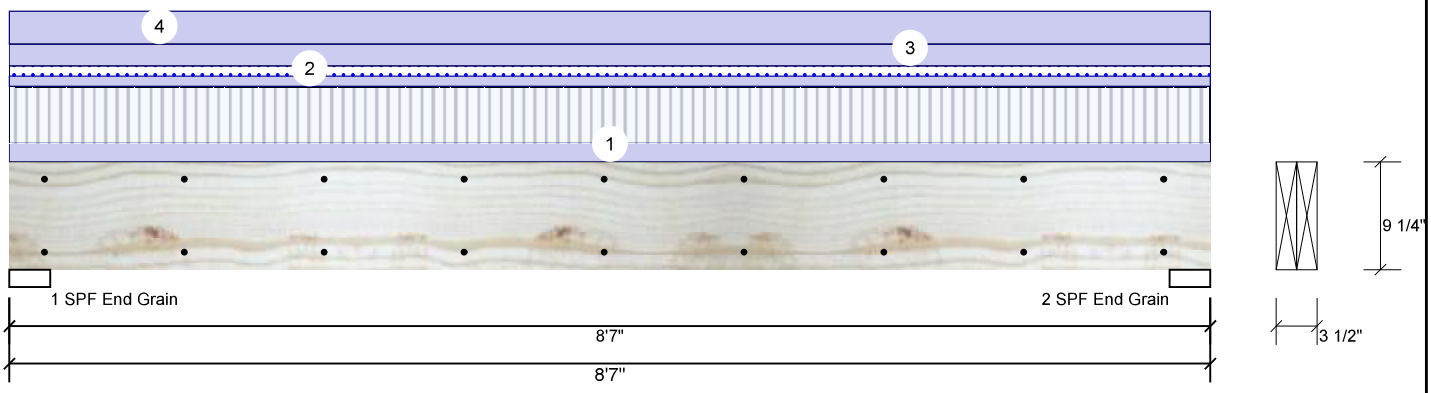
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

# BM4 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level




## Member Information

| | | | |
|---|---|---|---|
| Type: | Girder | Application: | Floor |
| Plies: | 2 | Design Method: | ASD |
| Moisture Condition: | Dry | Building Code: | IBC/IRC 2015 |
| Deflection LL: | 480 | Load Sharing: | No |
| Deflection TL: | 360 | Deck: | Not Checked |
| Importance: | Normal - II | | |
| Temperature: | Temp <= 100°F | | |

## Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind | Const |
|---|---|---|---|---|---|---|
| 1 | Vertical | 1330 | 2005 | 240 | 0 | 0 |
| 2 | Vertical | 1330 | 2005 | 240 | 0 | 0 |

## Bearings

| Bearing | Length | Dir. | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|---|---|---|---|---|---|---|---|
| 1 - SPF End Grain | 3.500" | Vert | 32% | 2005 / 1330 | 3335 | L | D+L |
| 2 - SPF End Grain | 3.500" | Vert | 32% | 2005 / 1330 | 3335 | L | D+L |

## Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---|---|---|---|---|---|---|
| Moment | 6413 ft-lb | 4'3 1/2" | 12542 ft-lb | 0.511 (51%) | D+L | L |
| Unbraced | 6413 ft-lb | 4'3 1/2" | 8468 ft-lb | 0.757 (76%) | D+L | L |
| Shear | 2515 lb | 1' 3/4" | 6907 lb | 0.364 (36%) | D+L | L |
| LL Defl inch | 0.075 (L/1301) | 4'3 9/16" | 0.203 (L/480) | 0.369 (37%) | L | L |
| TL Defl inch | 0.188 (L/519) | 4'3 9/16" | 0.271 (L/360) | 0.694 (69%) | D+L | L |

## Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on the bottom edge only.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at end bearings.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

| ID | Load Type | Location | Trib Width | Side | Dead 0.9 | Live 1 | Snow 1.15 | Wind 1.6 | Const. 1.25 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Uniform | | | Top | 104 PLF | 310 PLF | 0 PLF | 0 PLF | 0 PLF | F1 |
| 2 | Uniform | | | Top | 56 PLF | 0 PLF | 56 PLF | 0 PLF | 0 PLF | M1 |
| 3 | Uniform | | | Top | 120 PLF | 0 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Above |
| 4 | Uniform | | | Top | 180 PLF | 0 PLF | 0 PLF | 0 PLF | 0 PLF | C1GE |
| | Self Weight | | | | 7 PLF | | | | | |

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

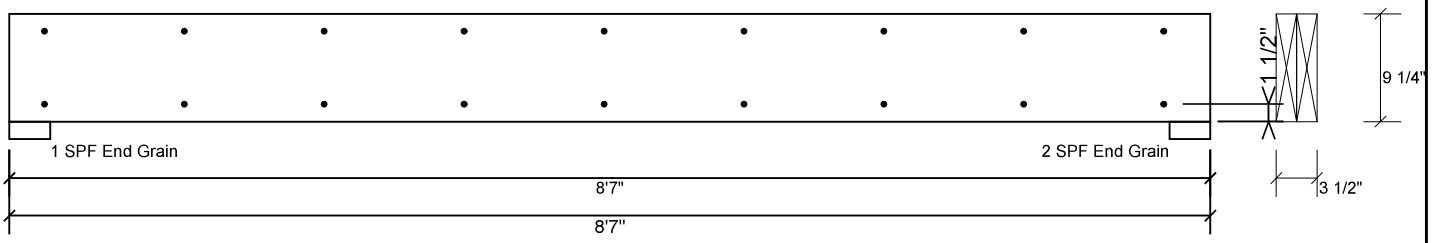
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

| | | | |
|---|---|---|---|
| Client: | Benjamin Stout Real Estate | Date: | 8/10/2022 |
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

# BM4 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level




## Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

| | |
|---|---|
| Capacity | 0.0 % |
| Load | 0.0 PLF |
| Yield Limit per Foot | 163.7 PLF |
| Yield Limit per Fastener | 81.9 lb. |
| Yield Mode | IV |
| Edge Distance | 1 1/2" |
| Min. End Distance | 3" |
| Load Combination | |
| Duration Factor | 1.00 |

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

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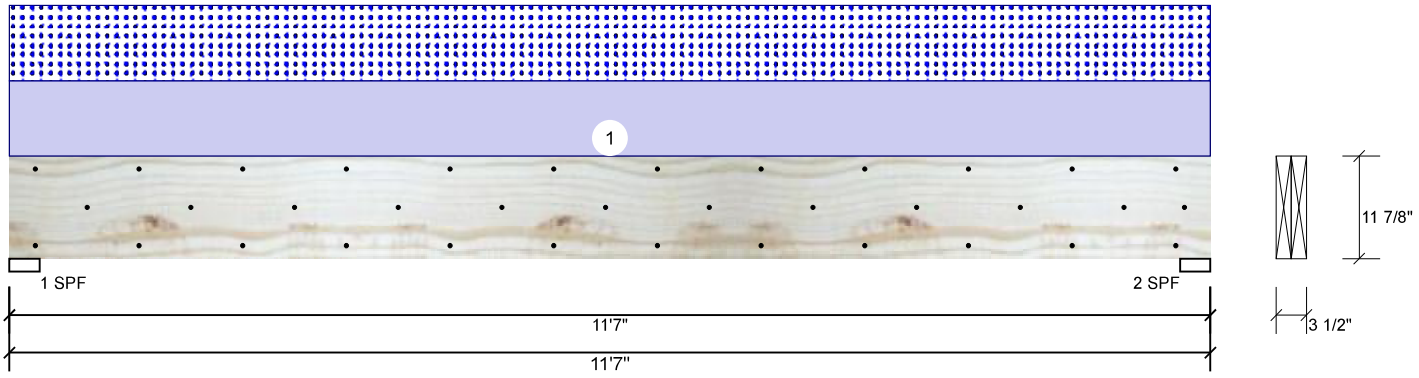
28314
910-864-TRUS

| | | | |
|---|---|---|---|
| Client: | Benjamin Stout Real Estate | Date: | 8/10/2022 |
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

# BM5 Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level




## Member Information

| | | | |
|---|---|---|---|
| Type: | Girder | Application: | Floor |
| Plies: | 2 | Design Method: | ASD |
| Moisture Condition: | Dry | Building Code: | IBC/IRC 2015 |
| Deflection LL: | 480 | Load Sharing: | No |
| Deflection TL: | 360 | Deck: | Not Checked |
| Importance: | Normal - II | | |
| Temperature: | Temp <= 100°F | | |

## Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind | Const |
|---|---|---|---|---|---|---|
| 1 | Vertical | 0 | 1559 | 1506 | 0 | 0 |
| 2 | Vertical | 0 | 1559 | 1506 | 0 | 0 |

## Bearings

| Bearing | Length | Dir. | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|---|---|---|---|---|---|---|---|
| 1 - SPF | 3.500" | Vert | 59% | 1559 / 1506 | 3065 | L | D+S |
| 2 - SPF | 3.500" | Vert | 59% | 1559 / 1506 | 3065 | L | D+S |

## Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---|---|---|---|---|---|---|
| Moment | 8188 ft-lb | 5'9 1/2" | 22897 ft-lb | 0.358 (36%) | D+S | L |
| Unbraced | 8188 ft-lb | 5'9 1/2" | 8589 ft-lb | 0.953 (95%) | D+S | L |
| Shear | 2911 lb | 1'3 3/8" | 10197 lb | 0.285 (29%) | D+S | L |
| LL Defl inch | 0.103 (L/1298) | 5'9 1/2" | 0.278 (L/480) | 0.370 (37%) | S | L |
| TL Defl inch | 0.209 (L/637) | 5'9 1/2" | 0.371 (L/360) | 0.565 (56%) | D+S | L |

## Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on the bottom edge only.
5 Top must be laterally braced at end bearings.
6 Bottom must be laterally braced at end bearings.
7 Lateral slenderness ratio based on single ply width.

| ID | Load Type | Location | Trib Width | Side | Dead 0.9 | Live 1 | Snow 1.15 | Wind 1.6 | Const. 1.25 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Uniform | | | Far Face | 260 PLF | 0 PLF | 260 PLF | 0 PLF | 0 PLF | A2 |
| | Self Weight | | | | 9 PLF | | | | | |

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

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Comtech, Inc.
1001 S. Reilly Road, Suite #639
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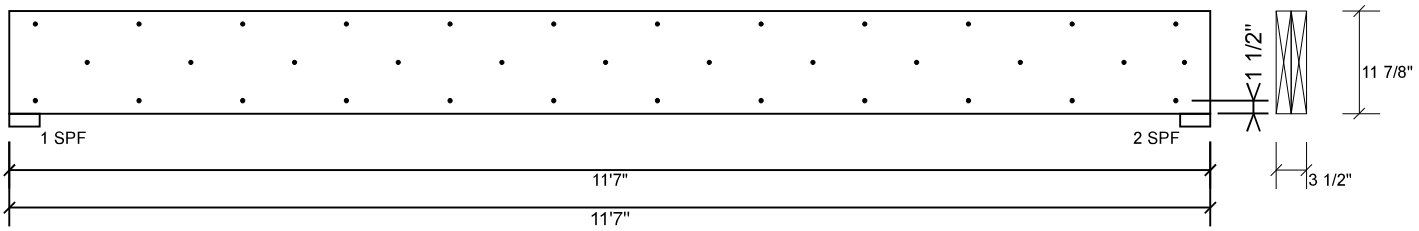
| | | | |
|---|---|---|---|
| Client: | Benjamin Stout Real Estate | Date: | 8/10/2022 |
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

# BM5 Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level




## Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

| | |
|---|---|
| Capacity | 92.1 % |
| Load | 260.0 PLF |
| Yield Limit per Foot | 282.4 PLF |
| Yield Limit per Fastener | 94.1 lb. |
| Yield Mode | IV |
| Edge Distance | 1 1/2" |
| Min. End Distance | 3" |
| Load Combination | D+S |
| Duration Factor | 1.15 |

### Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

### Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

### Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

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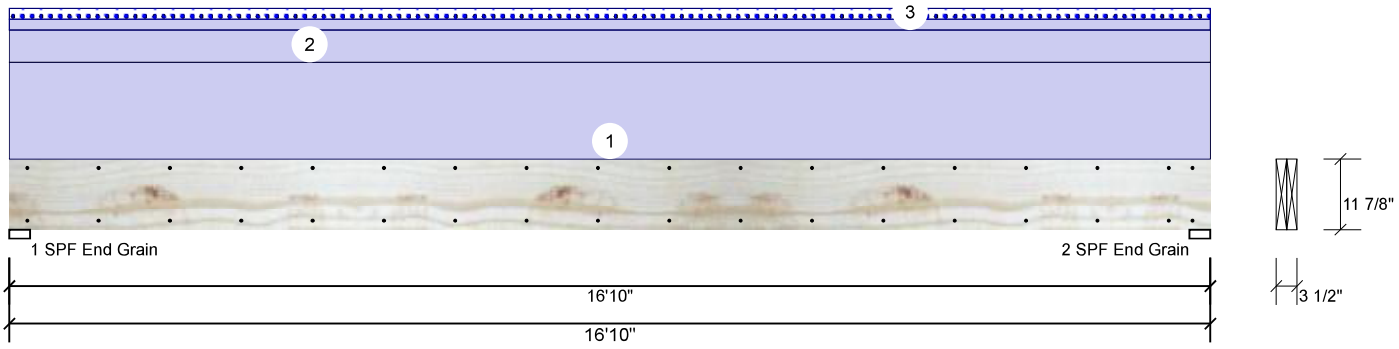
|---|---|---|---|
| Client: | Benjamin Stout Real Estate | Date: | 8/10/2022 |
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

# GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level




## Member Information

| | | | |
|---|---|---|---|
| Type: | Girder | Application: | Floor |
| Plies: | 2 | Design Method: | ASD |
| Moisture Condition: | Dry | Building Code: | IBC/IRC 2015 |
| Deflection LL: | 480 | Load Sharing: | No |
| Deflection TL: | 360 | Deck: | Not Checked |
| Importance: | Normal - II | | |
| Temperature: | Temp <= 100°F | | |

## Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind | Const |
|---|---|---|---|---|---|---|
| 1 | Vertical | 0 | 2266 | 168 | 0 | 0 |
| 2 | Vertical | 0 | 2266 | 168 | 0 | 0 |

## Bearings

| Bearing | Length | Dir. | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|---|---|---|---|---|---|---|---|
| 1 - SPF End Grain | 3.500" | Vert | 24% | 2266 / 168 | 2434 | L | D+S |
| 2 - SPF End Grain | 3.500" | Vert | 24% | 2266 / 168 | 2434 | L | D+S |

## Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---|---|---|---|---|---|---|
| Moment | 9024 ft-lb | 8'5" | 17919 ft-lb | 0.504 (50%) | D | Uniform |
| Unbraced | 9694 ft-lb | 8'5" | 9704 ft-lb | 0.999 (100%) | D+S | L |
| Shear | 1930 lb | 15'6 5/8" | 7980 lb | 0.242 (24%) | D | Uniform |
| LL Defl inch | 0.035 (L/5617) | 8'5 1/16" | 0.409 (L/480) | 0.085 (9%) | S | L |
| TL Defl inch | 0.506 (L/388) | 8'5 1/16" | 0.546 (L/360) | 0.927 (93%) | D+S | L |

## Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on the bottom edge only.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at a maximum of 9'6 3/4" o.c.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

| ID | Load Type | Location | Trib Width | Side | Dead 0.9 | Live 1 | Snow 1.15 | Wind 1.6 | Const. 1.25 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Uniform | | | Top | 180 PLF | 0 PLF | 0 PLF | 0 PLF | 0 PLF | B1GE |
| 2 | Uniform | | | Top | 60 PLF | 0 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Above |
| 3 | Tie-In | 0-0-0 to 16-10-0 | 1-0-0 | Top | 20 PSF | 0 PSF | 20 PSF | 0 PSF | 0 PSF | Roof Load |
| | Self Weight | | | | 9 PLF | | | | | |

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

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(800) 622-5850
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Comtech, Inc.
1001 S. Reilly Road, Suite #639
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28314
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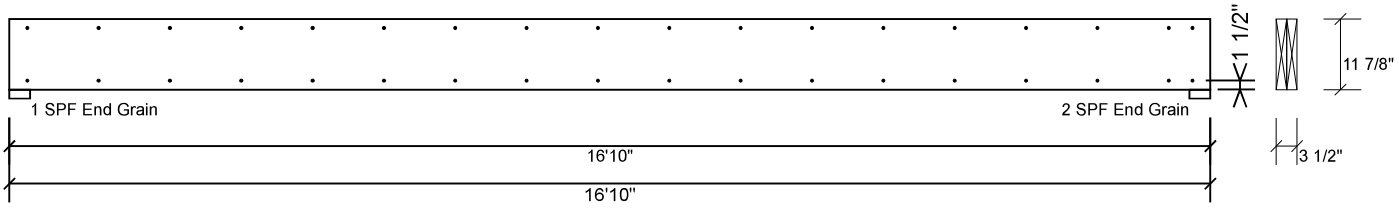
| | | | |
|---|---|---|---|
| Client: | Benjamin Stout Real Estate | Date: | 8/10/2022 |
| Project: | The Ashville | Input by: | David Landry |
| Address: | 60 Melvill Lane | Job Name: | Lot 48 Liberty Meadows |
| | | Project #: | J0822-4075 |

# GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level




## Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

| | |
|---|---|
| Capacity | 0.0 % |
| Load | 0.0 PLF |
| Yield Limit per Foot | 163.7 PLF |
| Yield Limit per Fastener | 81.9 lb. |
| Yield Mode | IV |
| Edge Distance | 1 1/2" |
| Min. End Distance | 3" |
| Load Combination | |
| Duration Factor | 1.00 |

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
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28314
910-864-TRUS

RE: J0822-4075
Lot 48 Liberty Meadows

**Trenco**
818 Soundside Rd
Edenton, NC 27932

**Site Information:**

Customer: Benjamin Stout Real Estate
Project Name: J0822-4075
Lot/Block: 48
Model: Ashville
Address: 60 Melvill Lane
Subdivision: Liberty Meadows
City:
State: NC

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

Design Code: IRC2015/TPI2014
Design Program: MiTek 20/20 8.4
Wind Code: N/A
Wind Speed: N/A mph
Roof Load: N/A psf
Floor Load: 55.0 psf

This package includes 13 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal# | Truss Name | Date |
|---|---|---|---|
| 1 | E16391095 | ET1 | 11/9/2021 |
| 2 | E16391096 | ET2 | 11/9/2021 |
| 3 | E16391097 | F1 | 11/9/2021 |
| 4 | E16391098 | F2 | 11/9/2021 |
| 5 | E16391099 | F2A | 11/9/2021 |
| 6 | E16391100 | F3 | 11/9/2021 |
| 7 | E16391101 | F4 | 11/9/2021 |
| 8 | E16391102 | F4A | 11/9/2021 |
| 9 | E16391103 | F5 | 11/9/2021 |
| 10 | E16391104 | F6 | 11/9/2021 |
| 11 | E16391105 | F7 | 11/9/2021 |
| 12 | E16391106 | FG1 | 11/9/2021 |
| 13 | E16391107 | FG2 | 11/9/2021 |

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

Truss Design Engineer's Name: Gilbert, Eric
My license renewal date for the state of North Carolina is December 31, 2022.
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.

November 09, 2021
Gilbert, Eric

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4075 | ET1 | GABLE | 1 | 1 | E16391095 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:25 2021 Page 1
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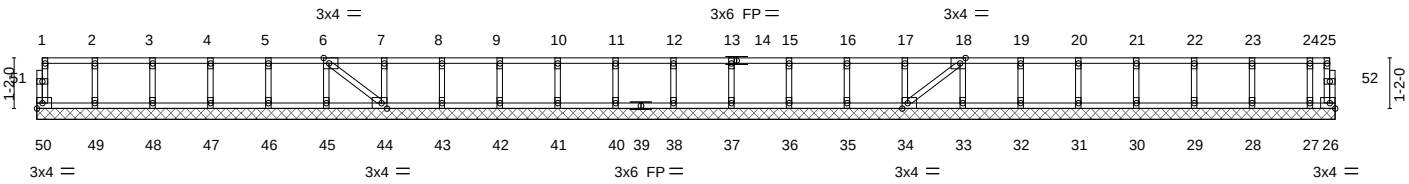


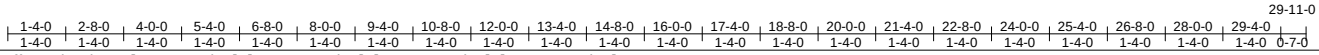


Plate Offsets (X,Y)-- [6:0-1-8,Edge], [18:0-1-8,Edge], [34:0-1-8,Edge], [44:0-1-8,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.01 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | -0.00 | 26 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 128 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 49-50,48-49,47-48,46-47,45-46,44-45.

**REACTIONS.** All bearings 29-11-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 26
Max Grav All reactions 250 lb or less at joint(s) 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27

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

**NOTES-**
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 26.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.


November 9,2021



818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4075 | ET2 | GABLE | 1 | 1 | E16391096 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:26 2021 Page 1
ID:J6aSr?qB6etazEy6hKRSkZzPTZ_-g?KYzJ3Vacn4KyWPpfyqnlpEHkoozeErU2CxrlyLEMd

0-1-8

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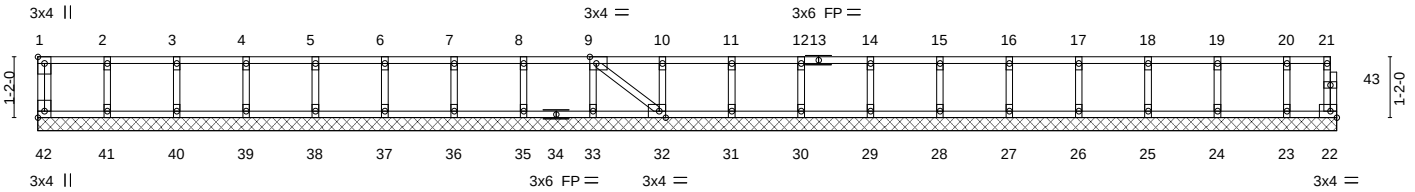


| 1-4-0 | 2-8-0 | 4-0-0 | 5-4-0 | 6-8-0 | 8-0-0 | 9-4-0 | 10-8-0 | 12-0-0 | 13-4-0 | 14-8-0 | 16-0-0 | 17-4-0 | 18-8-0 | 20-0-0 | 21-4-0 | 22-8-0 | 24-0-0 | 24-11-8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 1-4-0 | 0-11-8 |

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [9:0-1-8,Edge], [32:0-1-8,Edge], [42:Edge,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.01 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 22 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 106 lb | FT = 20%F, 11%E |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP No.1(flat) |
| BOT CHORD | 2x4 SP No.1(flat) |
| WEBS | 2x4 SP No.3(flat) |
| OTHERS | 2x4 SP No.3(flat) |

**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 24-11-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 42, 22, 41, 40, 39, 38, 37, 36, 35, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23

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

**NOTES-**
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.


November 9,2021



818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4075 | F1 | Floor | 8 | 1 | E16391097 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:28 2021 Page 1
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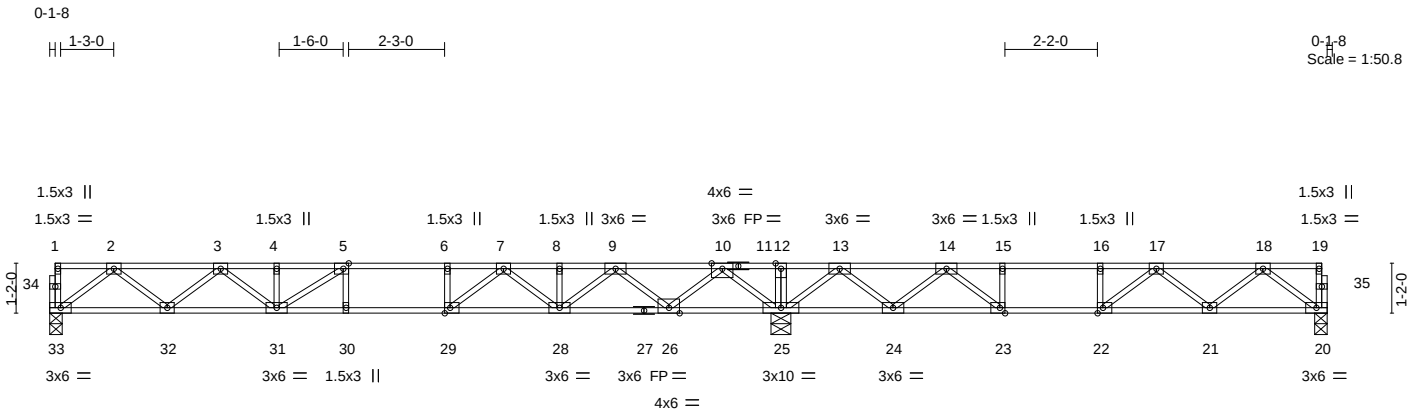


Plate Offsets (X,Y)-- [5:0-1-8,Edge], [22:0-1-8,Edge], [23:0-1-8,Edge], [29:0-1-8,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.86 | Vert(LL) | -0.20 | 30 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.85 | Vert(CT) | -0.28 | 30 | >735 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.58 | Horz(CT) | 0.05 | 20 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 149 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 33=0-3-8, 25=0-5-8, 20=0-3-8
Max Grav 33=826(LC 3), 25=1934(LC 1), 20=608(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1695/0, 3-4=-2732/0, 4-5=-2732/0, 5-6=-2963/0, 6-7=-2963/0, 7-8=-2067/0, 8-9=-2067/0, 9-10=-539/303, 10-12=0/2152, 12-13=0/2152, 13-14=-551/972, 14-15=-1575/269, 15-16=-1575/269, 16-17=-1575/269, 17-18=-1162/0
BOT CHORD 32-33=0/1030, 31-32=0/2330, 30-31=0/2963, 29-30=0/2963, 28-29=0/2561, 26-28=-37/1417, 25-26=-833/0, 24-25=-1263/0, 23-24=-662/1135, 22-23=-269/1575, 21-22=-24/1515, 20-21=0/747
WEBS 2-33=-1290/0, 2-32=0/866, 3-32=-826/0, 3-31=0/514, 10-25=-1655/0, 10-26=0/1228, 9-26=-1188/0, 9-28=0/878, 7-28=-685/0, 7-29=0/807, 6-29=-359/0, 5-31=-475/153, 13-25=-1321/0, 13-24=0/882, 14-24=-926/0, 14-23=0/942, 18-20=-935/0, 18-21=0/540, 17-21=-460/99, 17-22=-345/76, 15-23=-417/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4075 | F2 | Floor | 1 | 1 | E16391098 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:29 2021 Page 1
ID:J6aSr?qB6etazEy6hKRSkZzPTZ_-4a?hcL6NtX9eBQE_UnWXPNRXuxcHAsbHA?RbS4yLEMa

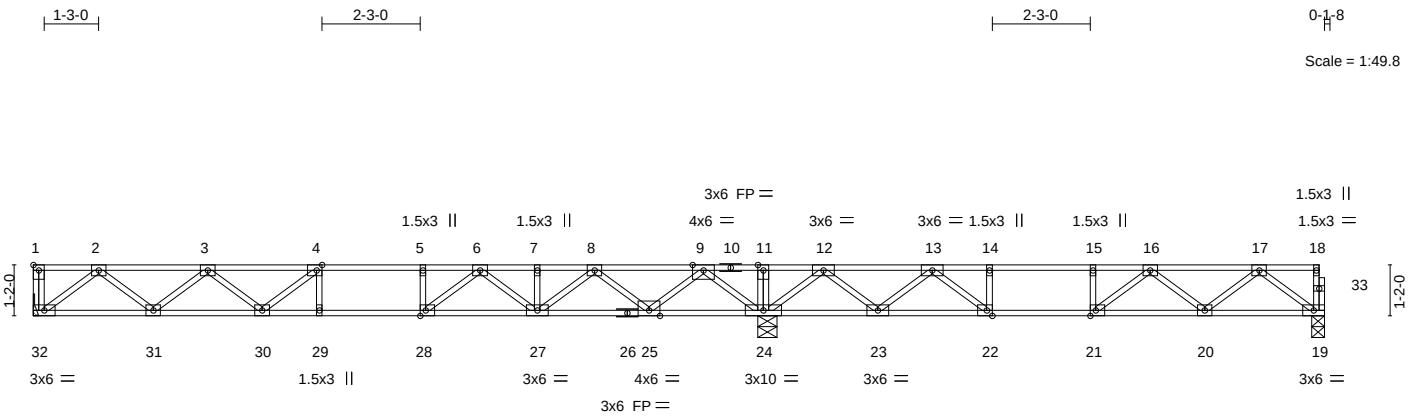


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-1-8,Edge], [21:0-1-8,Edge], [22:0-1-8,Edge], [28:0-1-8,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.87 | Vert(LL) | -0.18 | 28-29 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.85 | Vert(CT) | -0.25 | 28-29 | >810 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.57 | Horz(CT) | 0.05 | 19 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 146 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 32=Mechanical, 19=0-3-8, 24=0-5-4
Max Grav 32=814(LC 3), 19=615(LC 4), 24=1907(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1658/0, 3-4=-2582/0, 4-5=-2848/0, 5-6=-2848/0, 6-7=-2034/0, 7-8=-2034/0, 8-9=-563/296, 9-11=0/2082, 11-12=0/2082, 12-13=-578/905, 13-14=-1611/221, 14-15=-1611/221, 15-16=-1611/221, 16-17=-1179/0
BOT CHORD 31-32=0/1002, 30-31=0/2282, 29-30=0/2848, 28-29=0/2848, 27-28=0/2500, 25-27=-36/1414, 24-25=-810/0, 23-24=-1188/0, 22-23=-602/1165, 21-22=-221/1611, 20-21=0/1540, 19-20=0/756
WEBS 2-32=-1257/0, 2-31=0/854, 3-31=-813/0, 3-30=0/392, 4-30=-431/27, 9-24=-1619/0, 9-25=0/1194, 8-25=-1155/0, 8-27=0/843, 6-27=-652/0, 6-28=0/750, 5-28=-323/0, 17-19=-946/0, 17-20=0/550, 16-20=-470/84, 16-21=-317/90, 12-24=-1316/0, 12-23=0/876, 13-23=-920/0, 13-22=0/936, 14-22=-417/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows E16391099 |
|---|---|---|---|---|---|
| J0822-4075 | F2A | Floor | 1 | 1 | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:31 2021 Page 1
ID:J6aSr?qB6etazEy6hKRSkZzPTZ_-0y7R017eP9PMRkONcCY?UoWwalOYekCadJwiXzyLEMY

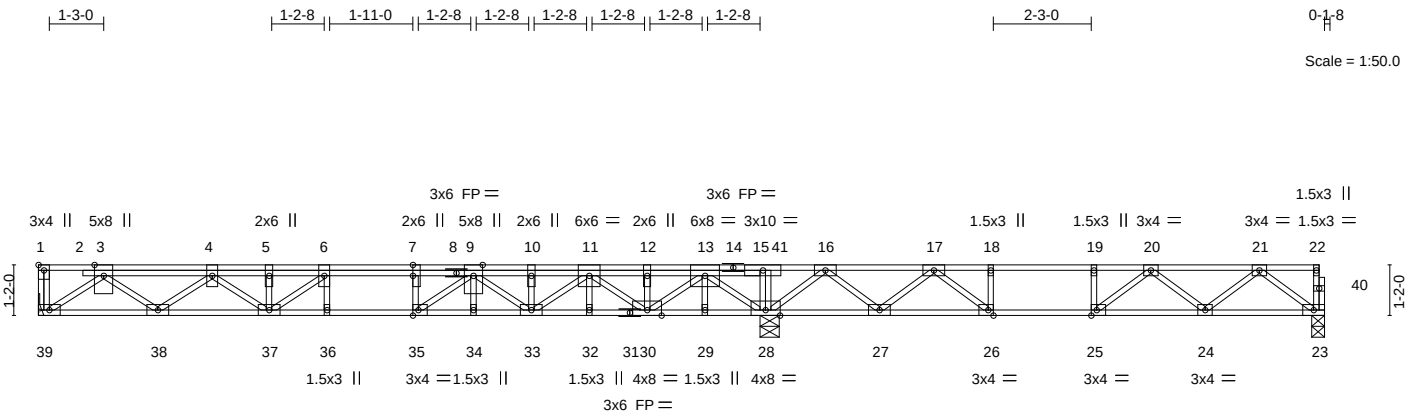



Plate Offsets (X,Y)-- [1:Edge,0-1-8], [7:0-3-0,Edge], [25:0-1-8,Edge], [26:0-1-8,Edge], [35:0-1-8,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.66 | Vert(LL) | -0.15 | 35 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.48 | Vert(CT) | -0.20 | 35-36 | >993 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.69 | Horz(CT) | 0.04 | 23 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 173 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 39=Mechanical, 28=0-5-4, 23=0-3-8
Max Grav 39=951(LC 3), 28=2436(LC 1), 23=579(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-2099/0, 4-5=-3320/0, 5-6=-3320/0, 6-7=-3521/0, 7-9=-3521/0, 9-10=-2750/0, 10-11=-2750/0, 11-12=-1201/0, 12-13=-1201/0, 13-15=0/2484, 15-16=0/2500, 16-17=-224/1085, 17-18=-1394/330, 18-19=-1394/330, 19-20=-1394/330, 20-21=-1095/0
BOT CHORD 38-39=0/1255, 37-38=0/2907, 36-37=0/3521, 35-36=0/3521, 34-35=0/3180, 33-34=0/3180, 32-33=0/2041, 30-32=0/2041, 29-30=-501/77, 28-29=-501/77, 27-28=-1403/0, 26-27=-753/865, 25-26=-330/1394, 24-25=-59/1406, 23-24=0/710
WEBS 3-39=-1541/0, 3-38=0/1072, 4-38=-1027/0, 4-37=0/515, 5-37=-259/12, 13-28=-2425/0, 13-30=0/1449, 11-30=-1115/0, 11-33=0/936, 9-33=-593/0, 9-35=0/799, 7-35=-397/0, 16-28=-1479/0, 6-37=-372/209, 16-27=0/905, 17-27=-970/0, 17-26=0/989, 18-26=-436/0, 21-23=-888/0, 21-24=-6/501, 20-24=-405/117, 20-25=-370/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x6 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 222 lb down at 4-1-4, and 576 lb down at 15-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 23-39=-10, 1-22=-100
Concentrated Loads (lb)
Vert: 4=-142(F) 13=-496(F)


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4075 | F3 | Floor | 1 | 1 | E16391100 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:32 2021 Page 1
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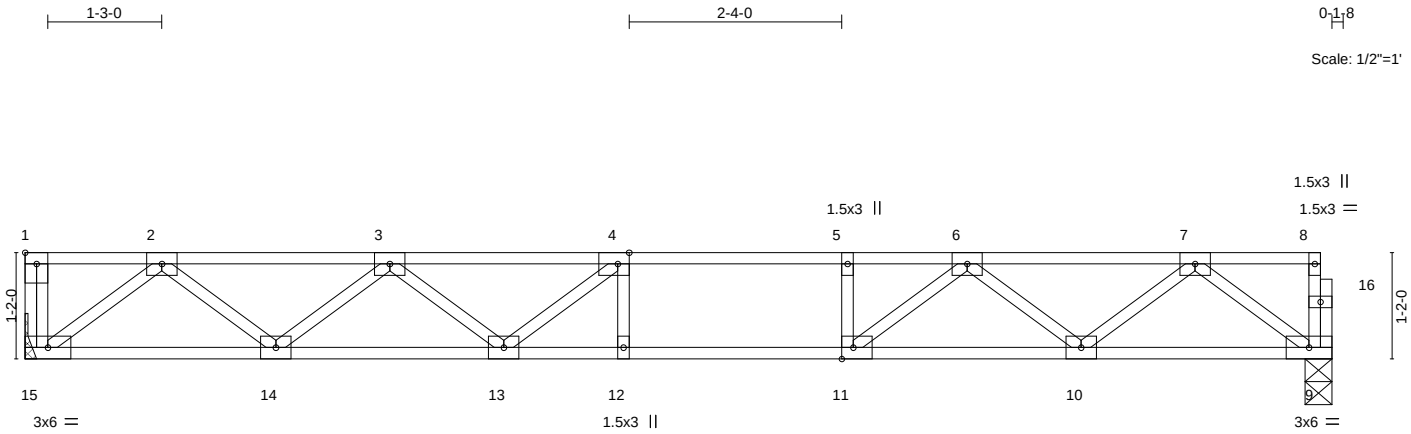


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-1-8,Edge], [11:0-1-8,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.60 | Vert(LL) | -0.19 | 12-13 | >906 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.87 | Vert(CT) | -0.25 | 12-13 | >687 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.38 | Horz(CT) | 0.04 | 9 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 71 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

**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.** (size) 15=Mechanical, 9=0-3-8
Max Grav 15=775(LC 1), 9=768(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1559/0, 3-4=-2384/0, 4-5=-2550/0, 5-6=-2550/0, 6-7=-1538/0
BOT CHORD 14-15=0/947, 13-14=0/2143, 12-13=0/2550, 11-12=0/2550, 10-11=0/2118, 9-10=0/954
WEBS 2-15=-1188/0, 2-14=0/797, 3-14=-761/0, 3-13=0/398, 7-9=-1194/0, 7-10=0/760, 6-10=-755/0, 6-11=0/740, 5-11=-317/0, 4-13=-437/18

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4075 | F4 | Floor | 4 | 1 | E16391101 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:33 2021 Page 1
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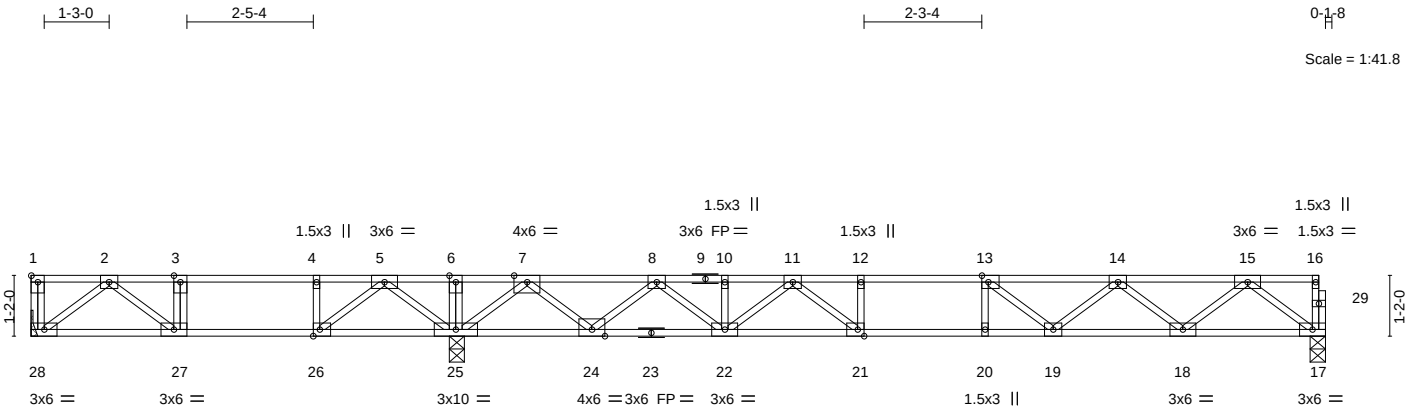


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [13:0-1-8,Edge], [21:0-1-8,Edge], [26:0-1-8,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.85 | Vert(LL) | -0.21 | 21-22 | >964 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.86 | Vert(CT) | -0.28 | 21-22 | >719 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.54 | Horz(CT) | 0.05 | 17 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 125 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 28=Mechanical, 25=0-3-8, 17=0-3-8
Max Grav 28=1746(LC 3), 25=1571(LC 1), 17=851(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-28=-1403/0, 2-3=-629/297, 3-4=-629/297, 4-5=-629/297, 5-6=0/1219, 6-7=0/1219, 7-8=-1123/0, 8-10=-2493/0, 10-11=-2493/0, 11-12=-3157/0, 12-13=-3157/0, 13-14=-2793/0, 14-15=-1763/0
BOT CHORD 27-28=-55/424, 26-27=-297/629, 25-26=-730/183, 24-25=-35/277, 22-24=0/1926, 21-22=0/2904, 20-21=0/3157, 19-20=0/3157, 18-19=0/2432, 17-18=0/1059
WEBS 2-28=-532/70, 2-27=-303/257, 5-25=-823/0, 5-26=0/878, 4-26=-429/0, 15-17=-1326/0, 15-18=0/917, 14-18=-871/0, 14-19=0/501, 7-25=-1524/0, 7-24=0/1128, 8-24=-1076/0, 8-22=0/753, 11-22=-559/0, 11-21=0/624, 12-21=-277/0, 13-19=-602/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 17-28=-10, 1-16=-100
Concentrated Loads (lb)
Vert: 1=-1350


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows E16391102 |
|---|---|---|---|---|---|
| J0822-4075 | F4A | Floor Girder | 1 | 1 | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:34 2021 Page 1
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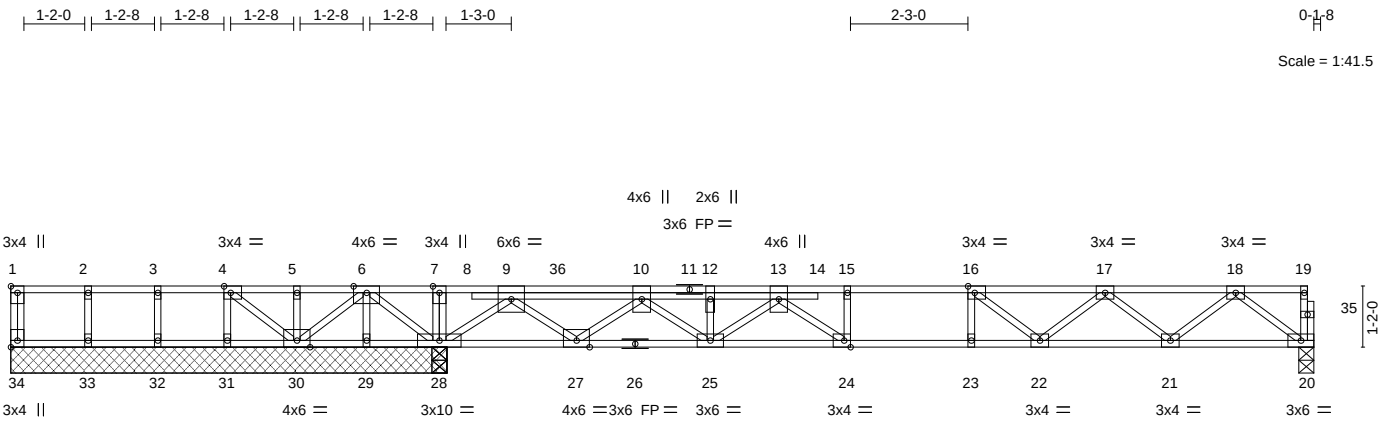


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-1-8,Edge], [16:0-1-8,Edge], [24:0-1-8,Edge], [34:Edge,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.72 | Vert(LL) | -0.18 | 22-23 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.88 | Vert(CT) | -0.24 | 22-23 | >825 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.66 | Horz(CT) | 0.03 | 20 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 134 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

**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, Except: 6-0-0 oc bracing: 29-30,28-29,27-28.

**REACTIONS.** All bearings 8-4-4 except (jt=length) 20=0-3-8.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) except 29=-516(LC 4), 30=-346(LC 4), 31=-239(LC 4)
Max Grav All reactions 250 lb or less at joint(s) 34, 30, 31, 32, 33 except 28=2681(LC 1), 28=2681(LC 1), 20=773(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=0/372, 5-6=0/372, 6-7=0/2805, 7-9=0/2806, 9-10=-255/233, 10-12=-1747/0, 12-13=-1747/0, 13-15=-2589/0, 15-16=-2589/0, 16-17=-2406/0, 17-18=-1570/0
BOT CHORD 29-30=-1225/0, 28-29=-1225/0, 27-28=-1194/0, 25-27=0/1076, 24-25=0/2211, 23-24=0/2589, 22-23=0/2589, 21-22=0/2158, 20-21=0/952
WEBS 6-28=-1983/0, 6-29=0/505, 6-30=0/1101, 4-30=-472/0, 4-31=0/251, 9-28=-2137/0, 9-27=0/1383, 10-27=-1347/0, 10-25=0/837, 18-20=-1191/0, 18-21=0/804, 17-21=-766/0, 17-22=0/375, 16-22=-401/0, 13-25=-579/0, 13-24=0/628, 15-24=-253/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 516 lb uplift at joint 29, 346 lb uplift at joint 30 and 239 lb uplift at joint 31.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 407 lb down at 10-5-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-34=-10, 1-19=-100
Concentrated Loads (lb)
Vert: 36=-327(B)


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4075 | F5 | Floor | 6 | 1 | E16391103 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:36 2021 Page 1
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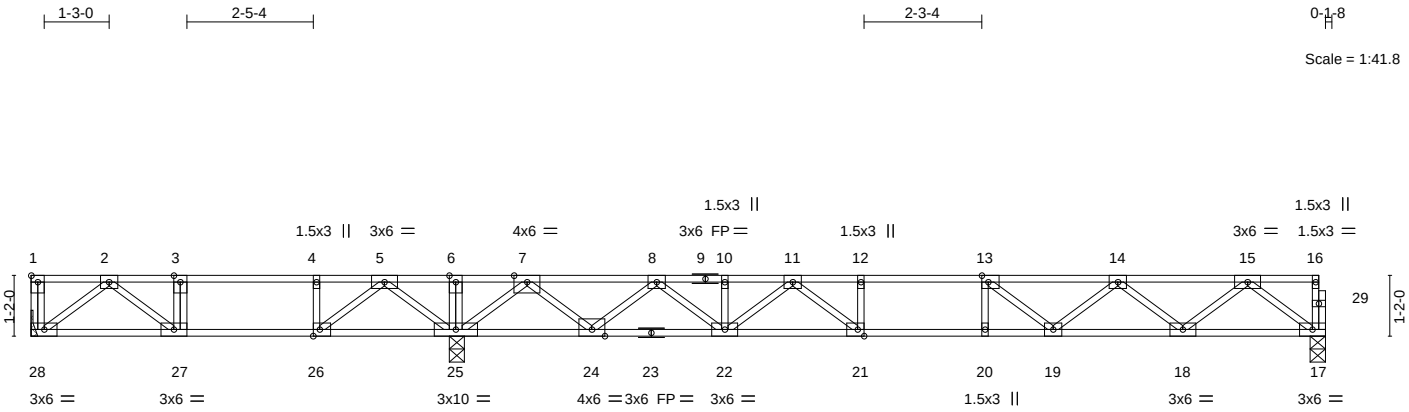


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [13:0-1-8,Edge], [21:0-1-8,Edge], [26:0-1-8,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.74 | Vert(LL) | -0.21 | 21-22 | >964 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.78 | Vert(CT) | -0.28 | 21-22 | >719 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.54 | Horz(CT) | 0.05 | 17 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 125 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 28=Mechanical, 25=0-3-8, 17=0-3-8
Max Uplift 28=-14(LC 4)
Max Grav 28=396(LC 3), 25=1571(LC 1), 17=851(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-629/297, 3-4=-629/297, 4-5=-629/297, 5-6=0/1219, 6-7=0/1219, 7-8=-1123/0, 8-10=-2493/0, 10-11=-2493/0, 11-12=-3157/0, 12-13=-3157/0, 13-14=-2793/0, 14-15=-1763/0
BOT CHORD 27-28=-56/423, 26-27=-297/629, 25-26=-730/184, 24-25=-34/277, 22-24=0/1927, 21-22=0/2904, 20-21=0/3157, 19-20=0/3157, 18-19=0/2432, 17-18=0/1059
WEBS 2-28=-531/70, 2-27=-302/259, 5-25=-823/0, 5-26=0/878, 4-26=-429/0, 15-17=-1326/0, 15-18=0/917, 14-18=-871/0, 14-19=0/501, 7-25=-1524/0, 7-24=0/1128, 8-24=-1076/0, 8-22=0/753, 11-22=-559/0, 11-21=0/624, 12-21=-277/0, 13-19=-603/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 28.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.


November 9,2021



TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4075 | F6 | Floor | 2 | 1 | E16391104 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:36 2021 Page 1
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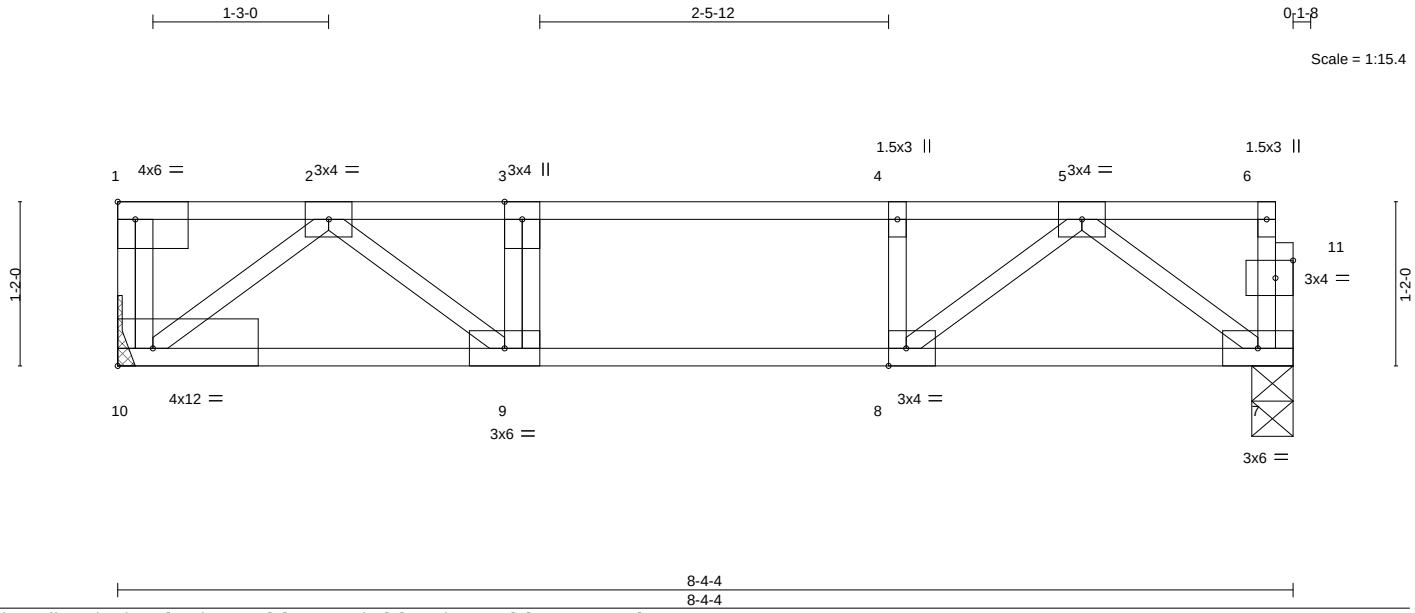


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [8:0-1-8,Edge], [10:Edge,0-1-8], [11:0-1-8,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.39 | Vert(LL) | -0.04 | 9-10 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.27 | Vert(CT) | -0.05 | 9-10 | >999 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.22 | Horz(CT) | 0.01 | 7 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 43 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

**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.** (size) 10=Mechanical, 7=0-3-8
Max Grav 10=3846(LC 1), 7=440(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=-3459/0, 2-3=-821/0, 3-4=-821/0, 4-5=-821/0
BOT CHORD 9-10=0/493, 8-9=0/821, 7-8=0/489
WEBS 2-10=-619/0, 2-9=0/460, 5-7=-609/0, 5-8=0/469

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 7-10=-10, 1-6=-100
Concentrated Loads (lb)
Vert: 1=-3400


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TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4075 | F7 | Floor | 1 | 1 | E16391105 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:37 2021 Page 1
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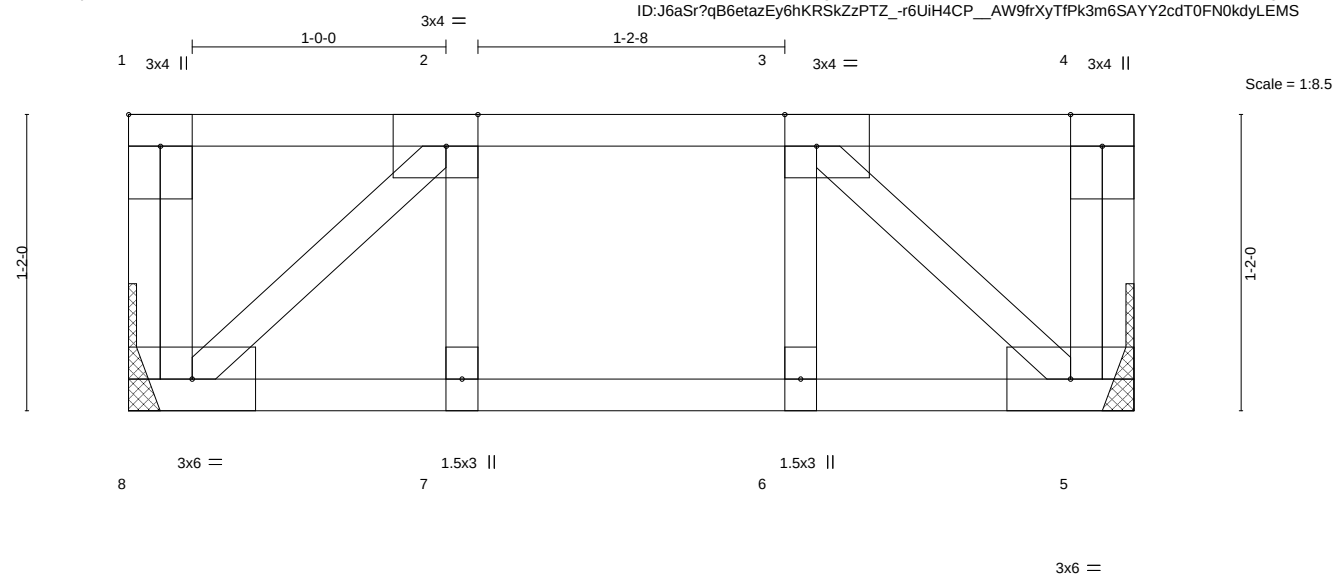


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [2:0-1-8,Edge], [3:0-1-8,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.06 | Vert(LL) | -0.00 | 7 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.06 | Vert(CT) | -0.00 | 7 | >999 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 24 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 8=Mechanical, 5=Mechanical
Max Grav 8=204(LC 1), 5=204(LC 1)

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

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.


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TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4075 | FG1 | Floor Girder | 1 | 1 | E16391106 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:38 2021 Page 1
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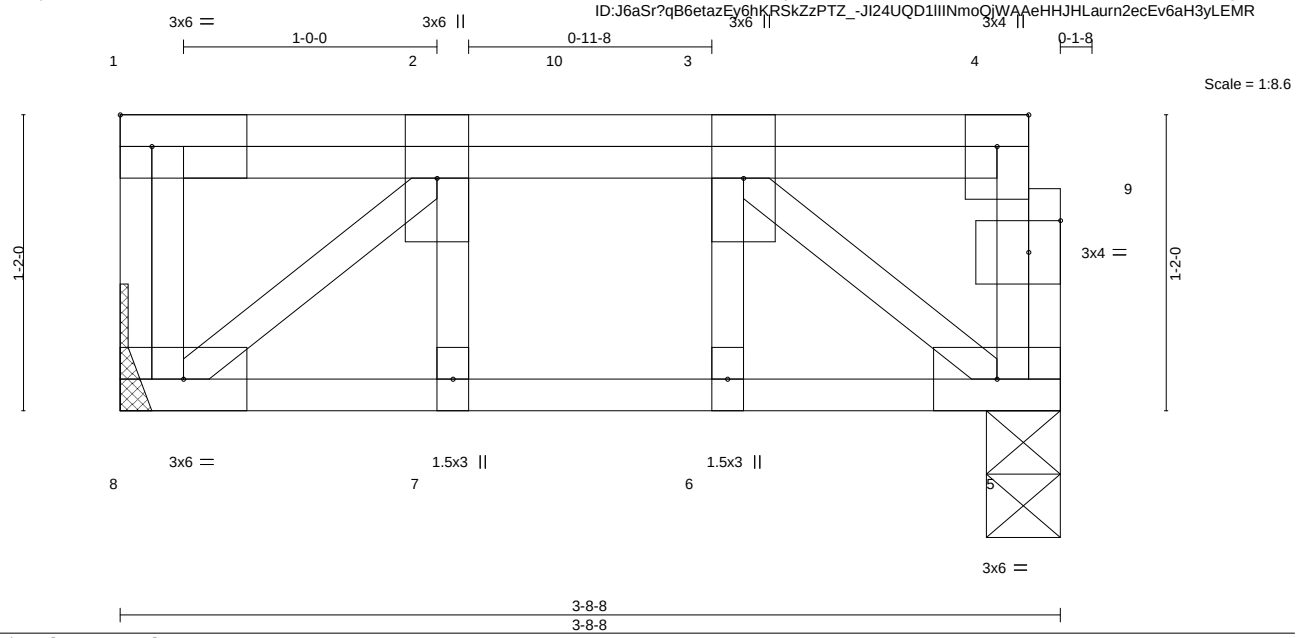


Plate Offsets (X,Y)-- [9:0-1-8,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.05 | Vert(LL) | -0.00 | 7 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.06 | Vert(CT) | -0.00 | 7 | >999 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.07 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 27 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 8=Mechanical, 5=0-3-8
Max Grav 8=242(LC 1), 5=236(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-294/0, 3-5=-291/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 122 lb down at 1-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 5-8=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 10=-104(F)


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TRENCO
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | Lot 48 Liberty Meadows |
|---|---|---|---|---|---|
| J0822-4075 | FG2 | Floor Girder | 1 | 1 | E16391107 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 8 13:13:38 2021 Page 1
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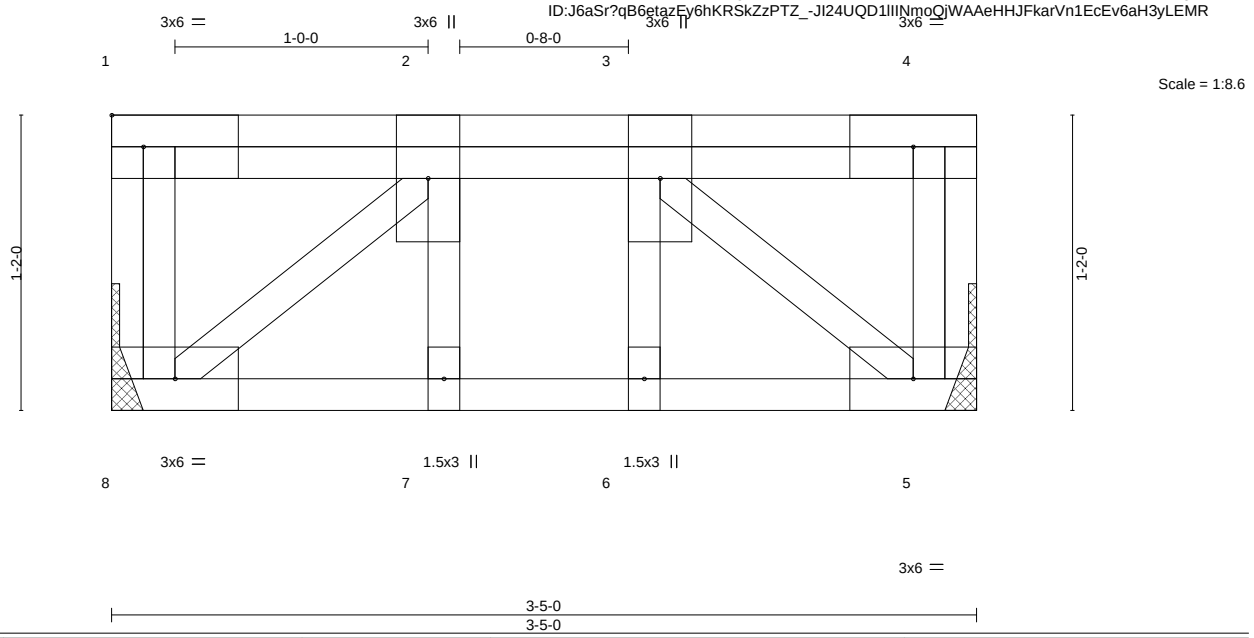



| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.16 | Vert(LL) | -0.01 | 7 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.21 | Vert(CT) | -0.01 | 7 | >999 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.16 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 26 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 8=Mechanical, 5=Mechanical
Max Grav 8=596(LC 1), 5=427(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-528/0
BOT CHORD 7-8=0/528, 6-7=0/528, 5-6=0/528
WEBS 2-8=-684/0, 3-5=-684/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 705 lb down at 1-6-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 5-8=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 2=-675(B)

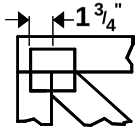

November 9,2021



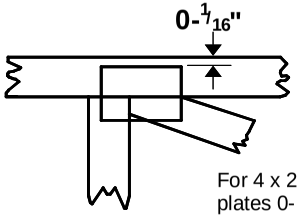
TRENCO
818 Soundside Road
Edenton, NC 27932

# Symbols

### PLATE LOCATION AND ORIENTATION




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




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

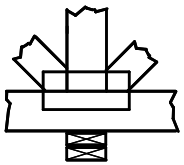
4 x 4

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

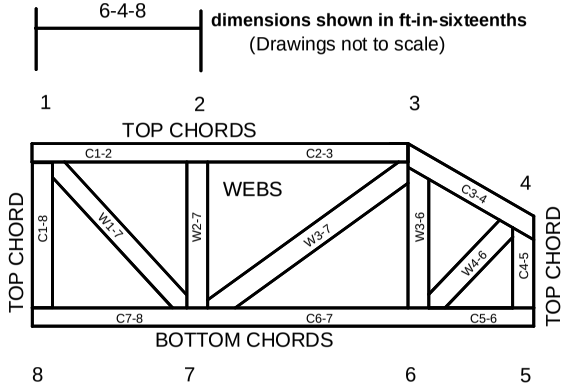


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

**Industry Standards:**

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System




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

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

### PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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



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