

### **Trenco**

818 Soundside Rd Edenton, NC 27932

Re: J0324-1647

Precision/76 Liberty Meadows/Harnett

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

Pages or sheets covered by this seal: I64422299 thru I64422322

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

North Carolina COA: C-0844



March 25,2024

Gilbert, Eric

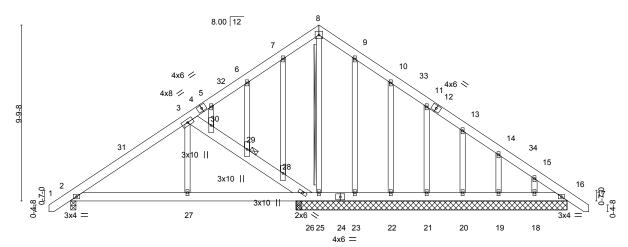
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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

Job Truss Truss Type Qty Precision/76 Liberty Meadows/Harnett 164422299 J0324-1647 A1-SG **GABLE** Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:41:59 2024 Page 1 Fayetteville, NC - 28314, Comtech, Inc.

5x5 =

ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 28-10-0 1-2-8 20-4-13 7-2-12 7-2-12 6-7-1 6-7-0 7-2-12

Scale: 3/16"=1"



		, e	9-5-1		3-1-7	5-7-15		1		9-5-1	ı	
LOADIN	G (psf)	SPACING- 2-	0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL 1	.15	TC	0.17	Vert(LL)	-0.01	2-27	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL 1	.15	BC	0.13	Vert(CT)	-0.02	2-27	>999	240		
BCLL	0.0 *	Rep Stress Incr Y	ES	WB	0.13	Horz(CT)	0.00	26	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI20	14	Matri	x-S	Wind(LL)	0.01	2-27	>999	240	Weight: 248 lb	FT = 20%

18-2-7

12-6-8

LUMBER-BRACING-TOP CHORD TOP CHORD 2x6 SP No.1

Structural wood sheathing directly applied or 6-0-0 oc purlins. **BOT CHORD** 2x6 SP No.1 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 2x4 SP No.2 \*Except\* **WEBS** 

10-0-0 oc bracing: 2-27,26-27. 3-26: 2x8 SP No.1 **WEBS** 2x4 SPF No.2 - 8-25

**OTHERS** 2x4 SP No.2 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.

27-7-8

**JOINTS** 1 Brace at Jt(s): 29

REACTIONS. All bearings 15-1-0 except (jt=length) 2=0-3-8, 26=0-3-8, 26=0-3-8.

(lb) -Max Horz 2=-238(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 23, 22, 21, 20, 19, 18, 26

except 25=-103(LC 3)

Max Grav All reactions 250 lb or less at joint(s) 16, 25, 23, 22, 21, 20, 19, 18

except 2=547(LC 1), 26=674(LC 3), 26=628(LC 1)

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

TOP CHORD 2-3=-556/124, 15-16=-205/297

**BOT CHORD** 2-27=-77/463, 26-27=-78/461, 25-26=-263/220, 23-25=-263/220, 22-23=-263/220, 21-22=-263/220, 20-21=-263/220, 19-20=-263/220, 18-19=-263/220, 16-18=-263/220

**WEBS** 3-27=0/285, 3-30=-658/224, 29-30=-587/184, 28-29=-648/227, 26-28=-711/263,

### 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-9-12, Exterior(2) 13-9-12 to 18-2-9, Interior(1) 18-2-9 to 28-8-7 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 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) 2, 16, 23, 22, 21, 20, 19, 18, 26 except (jt=lb) 25=103.
- 9) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required

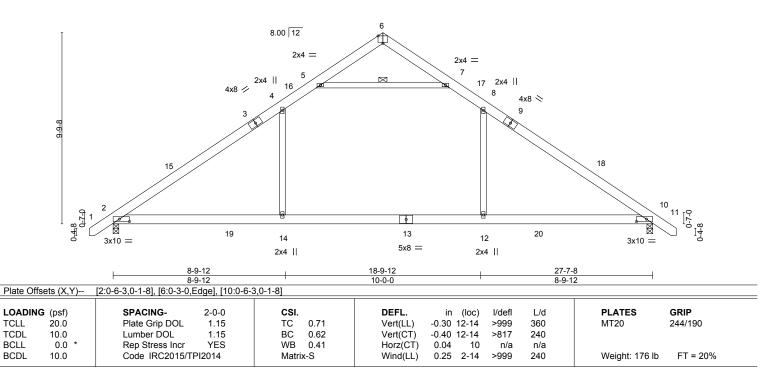




Job Truss Truss Type Qty Precision/76 Liberty Meadows/Harnett 164422300 J0324-1647 A2 COMMON Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:00 2024 Page 1 Comtech, Inc, Fayetteville, NC - 28314,

ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 28-10-0 1-2-8 18-9-12 5-0-0 5-0-0 8-9-12

> Scale = 1:59.0 4x6 =



LUMBER-

TCLL

TCDL

BCLL

**BCDL** 

TOP CHORD 2x6 SP No.1 2x6 SP No.1 BOT CHORD **WEBS** 2x4 SP No.2 **BRACING-**

TOP CHORD BOT CHORD WEBS

Structural wood sheathing directly applied or 4-8-15 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

1 Row at midpt 5-7

REACTIONS. (size) 2=0-3-8, 10=0-3-8

Max Horz 2=238(LC 11)

Max Uplift 2=-75(LC 12), 10=-75(LC 13) Max Grav 2=1442(LC 19), 10=1442(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  $2\text{-}4\text{--}2031/287, 4\text{-}5\text{--}1424/353, 5\text{-}6\text{--}29/298, 6\text{-}7\text{--}29/299, 7\text{-}8\text{--}1424/353, }$ TOP CHORD

8-9-12 8-9-12

8-10=-2031/287

BOT CHORD 2-14=-60/1578, 12-14=-60/1578, 10-12=-60/1578 WEBS 8-12=0/717, 4-14=0/717, 5-7=-1831/434

### 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-9-12, Exterior(2) 13-9-12 to 18-2-9, Interior(1) 18-2-9 to 28-8-7 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, 10.





Job Truss Truss Type Qty Precision/76 Liberty Meadows/Harnett 164422301 J0324-1647 A3 COMMON 2 Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:00 2024 Page 1 Comtech, Inc, Fayetteville, NC - 28314, ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 18-9-12 27-7-8 8-9-12 5-0-0 5-0-0 8-9-12 Scale = 1:57.0 4x6 = 5 8.00 12 2x4 = 2x4 = 2x4 || 15 4x8 < 16 | • | 17 11 18 12 10 3x6 =3x6 =5x8 = 2x4 || 2x4 || 18-9-12 8-9-12 10-0-0 Plate Offsets (X,Y)--[1:0-3-7,0-1-8], [5:0-3-0,Edge], [9:0-3-6,0-1-8] **PLATES** LOADING (psf) SPACING-CSI. DEFL. in (loc) I/def L/d GRIP TCLL 20.0 Plate Grip DOL 1.15 TC 0.73 Vert(LL) -0.31 10-12 >999 360 MT20 244/190 TCDL 10.0 Lumber DOL 1.15 ВС 0.62 Vert(CT) -0.41 10-12 >799 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.41 Horz(CT) 0.04 c n/a n/a Code IRC2015/TPI2014 FT = 20% **BCDL** 10.0 Wind(LL) 0.25 >999 240 Weight: 170 lb Matrix-S 1-12 **BRACING-**

TOP CHORD

**BOT CHORD** 

**WEBS** 

LUMBER-

TOP CHORD 2x6 SP No.1 BOT CHORD 2x6 SP No.1 **WEBS** 2x4 SP No.2

REACTIONS. (size) 1=0-3-8, 9=0-3-8 Max Horz 1=-223(LC 10)

Max Uplift 1=-58(LC 12), 9=-58(LC 13) Max Grav 1=1373(LC 19), 9=1373(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-3=-2035/293, 3-4=-1430/363, 4-5=-37/309, 5-6=-37/310, 6-7=-1429/363,

7-9=-2034/293

1-12=-92/1578, 10-12=-92/1578, 9-10=-92/1578 BOT CHORD WEBS 7-10=0/713, 3-12=0/713, 4-6=-1851/461

### 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) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 13-9-12, Exterior(2) 13-9-12 to 18-2-9, Interior(1) 18-2-9 to 27-5-12 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.
- \* 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) 1, 9.



Structural wood sheathing directly applied or 4-5-2 oc purlins.

4-6

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

1 Row at midpt



Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422302 J0324-1647 A4 Common Girder Job Reference (optional)
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:01 2024 Page 1 Comtech, Inc, Fayetteville, NC - 28314, ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 20-4-12 6-7-1 6-7-0 7-2-11 Scale = 1:57.8 5x8 || 3 8.00 12 8x8 // 8x8 ×

8x8 = 20-4-12 13-9-12 7-2-12 6-7-0 7-2-11 Plate Offsets (X,Y)--[1:0-4-3,0-2-0], [2:0-4-0,0-4-8], [4:0-4-0,0-4-8], [5:0-4-3,0-2-0], [8:0-4-0,0-4-12]

15

14

13

q

3x10 ||

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.	,	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.65	Vert(LL)	-0.18	5-6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.83	Vert(CT)	-0.31	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.97	Horz(CT)	0.09	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL)	0.09	5-6	>999	240	Weight: 386 lb	FT = 20%

7

BRACING-

TOP CHORD

**BOT CHORD** 

6x6 =

8

16

<sup>18</sup>6

3x10 ||

19

21

4v8 =

20

Structural wood sheathing directly applied or 4-3-14 oc purlins.

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

17

LUMBER-

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

REACTIONS. (size) 1=0-3-8, 5=0-3-8

Max Horz 1=-223(LC 23) Max Uplift 1=-360(LC 8), 5=-368(LC 9)

Max Grav 1=7614(LC 2), 5=7779(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-11164/539, 2-3=-7505/449, 3-4=-7505/449, 4-5=-11184/541 **BOT CHORD** 1-9=-464/9152, 8-9=-464/9152, 6-8=-361/9171, 5-6=-361/9171

WFBS 3-8=-381/7884, 4-8=-3746/323, 4-6=-95/4041, 2-8=-3722/321, 2-9=-94/4019

11

10

4x8 =

### 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: 2x6 - 2 rows staggered at 0-9-0 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.
- \* 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=360, 5=368.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1037 lb down and 55 lb up at 2-0-12, 1037 lb down and 55 lb up at 4-0-12, 1037 lb down and 55 lb up at 6-0-12, 1037 lb down and 55 lb up at 8-0-12, 1037 lb down and 55 lb up at 10-0-12, 1037 lb down and 55 lb up at 12-0-12, 1037 lb down and 55 lb up at 14-0-12, 1037 lb down and 55 lb up at 16-0-12, 1037 lb down and 55 lb up at 17-10-12, 1037 lb down and 55 lb up at 19-10-12, 1037 lb down and 55 lb up at 21-10-12, and 1037 lb down and 55 lb up at 23-10-12, and 1037 lb down and 55 lb up at 25-10-12 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

## SEAL

March 25,2024

### Continued on page 2



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Truss Type Job Truss Qty Ply Precision/76 Liberty Meadows/Harnett 164422302 J0324-1647 Α4 Common Girder | **Z** | Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:01 2024 Page 2

Comtech, Inc, Fayetteville, NC - 28314,

ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 1-5=-20

Concentrated Loads (lb)

Vert: 8=-868(B) 10=-868(B) 11=-868(B) 12=-868(B) 13=-868(B) 14=-868(B) 15=-868(B) 16=-868(B) 17=-868(B) 18=-868(B) 19=-868(B) 20=-868(B) 21=-868(B) 18=-868(B) 18=-86



Job Truss Truss Type Qty Precision/76 Liberty Meadows/Harnett 164422303 J0324-1647 B1-GE **GABLE** Job Reference (optional) Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:02 2024 Page 1

ID:qH4S SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 27-11-8 13-4-8 13-4-8

4x6 = 8.50 12 10 8x8 // 8x8 × 11 12 13 5 14 15 16 0-4-8 0-Z-10 3x4 = 30 29 28 27 26 25 24 2322 21 20 19 18 4x6 = 26-9-0

Plate Offsets (X,Y)--[7:0-4-0,0-4-8], [9:0-3-0,Edge], [11:0-4-0,0-4-8] LOADING (psf) SPACING-CSI DEFL. in (loc) I/defl L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.15 TC 0.06 Vert(LL) -0.00 16 120 244/190 n/r MT20 TCDL 10.0 Lumber DOL 1.15 ВС 0.03 Vert(CT) -0.00 16 n/r 120 **BCLL** 0.0 Rep Stress Incr YES WB 0.15 Horz(CT) 0.01 16 n/a n/a Code IRC2015/TPI2014 FT = 20% **BCDL** 10.0 Weight: 233 lb Matrix-S

BRACING-LUMBER-2x6 SP No.1 TOP CHORD TOP CHORD

BOT CHORD BOT CHORD 2x6 SP No.1 **OTHERS** 2x4 SP No.2 **WEBS** 

Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing. 2x4 SPF No.2 - 8-25, 10-24

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 26-9-0.

Max Horz 2=-307(LC 10) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 27, 28, 29, 21, 20, 19, 16 except 26=-111(LC 12), 30=-111(LC 12), 22=-115(LC 13), 18=-109(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 24, 22, 21, 20, 19, 18, 16

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

TOP CHORD 2-3=-335/215, 15-16=-281/201

2-30=-186/285, 29-30=-186/285, 28-29=-186/285, 27-28=-186/285, 26-27=-186/285, **BOT CHORD** 

25-26=-187/286, 24-25=-187/286, 22-24=-187/286, 21-22=-186/285, 20-21=-186/285,

19-20=-186/285, 18-19=-186/285, 16-18=-186/285

- 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
- 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, with BCDL = 10.0psf.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 27, 28, 29, 21, 20, 19, 16 except (jt=lb) 26=111, 30=111, 22=115, 18=109.
- 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required



Scale = 1:61.0

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall a duss system. Before use, the culturing design indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422304 J0324-1647 B2 COMMON 6 Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:03 2024 Page 1 Comtech, Inc, Fayetteville, NC - 28314, ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 27-11-8 1-2-8 8-4-8 1-5-4 18-4-8 19-9-12 26-9-0 6-11-4 5-0-0 5-0-0 1-5-4 6-11-4 Scale = 1:60.1 4x6 = 8.50 12 6 2x4 =5x8 / 5x8 💸 2x4 = 8 4 2x4 17 2x4 || 16 9 3 18 15 10-0-0 13 20 14 12 3x10 3x10 = 4x6 = 2x4 || 2x4 || 26-9-0 8-4-8 10-0-0 8-4-8 Plate Offsets (X,Y)--[2:0-6-12,0-1-8], [6:0-3-0,Edge], [10:0-6-12,0-1-8] L/d **GRIP** LOADING (psf) SPACING-CSI. DEFL. in (loc) I/def **PLATES** -0.26 12-14 TCLL 20.0 Plate Grip DOL 1.15 TC 0.52 Vert(LL) >999 360 244/190 MT20 TCDL 10.0 Lumber DOL 1.15 ВС 0.61 Vert(CT) -0.36 12-14 >886 240 BCLL 0.0 Rep Stress Incr YES WB 0.41 Horz(CT) 0.03 10 n/a n/a Code IRC2015/TPI2014 FT = 20% **BCDL** 10.0 Wind(LL) 0.23 2-14 >999 240 Weight: 175 lb Matrix-S

**BRACING-**

**WEBS** 

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x6 SP No.1 BOT CHORD 2x6 SP No.1 **WEBS** 2x4 SP No.2

REACTIONS. (size) 2=0-3-8, 10=0-3-8 Max Horz 2=245(LC 11)

Max Uplift 2=-70(LC 12), 10=-70(LC 13) Max Grav 2=1404(LC 19), 10=1404(LC 20)

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

TOP CHORD 2-3=-1939/272, 3-4=-1321/341, 8-9=-1321/341, 9-10=-1939/272

**BOT CHORD** 2-14=-44/1474, 12-14=-44/1474, 10-12=-44/1474

WFBS 9-12=0/713, 3-14=0/713, 4-8=-1586/397

### 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-4-8, Exterior(2) 13-4-8 to 17-9-5, Interior(1) 17-9-5 to 27-9-15 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, 10.



Structural wood sheathing directly applied or 5-1-2 oc purlins.

4-8

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

1 Row at midpt



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

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building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422305 J0324-1647 **B3** COMMON 8 Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:03 2024 Page 1 Comtech, Inc.

ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

13-4-8 17-4-8 19-9-12 22-7-0 6-11-4 1-5-4 5-0-0 4-0-0 2-5-4 2-9-4

> Scale = 1:59.3 4x6 =

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

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

except end verticals.

6-0-0 oc bracing: 11-12.

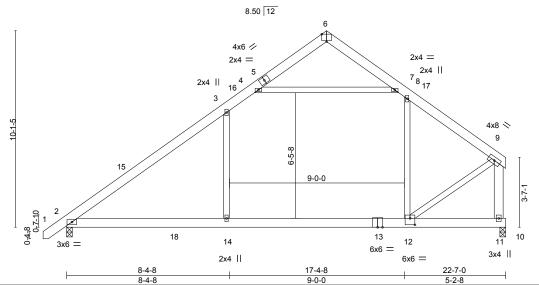


Plate Offsets (X,Y)--[6:0-3-0,Edge], [12:0-3-0,0-4-0] SPACING-LOADING (psf) CSI. DEFL. in (loc) I/defl L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.15 TC 0.34 Vert(LL) -0.29 14 >900 360 244/190 MT20 TCDL 10.0 Lumber DOL 1.15 ВС 0.52 Vert(CT) -0.46 2-14 >574 240 BCLL 0.0 Rep Stress Incr YES WB 0.94 Horz(CT) 0.01 11 n/a n/a Code IRC2015/TPI2014 Wind(LL) Weight: 166 lb FT = 20% **BCDL** 10.0 2-14 >999 240 Matrix-S 0.21

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

2x6 SP 2400F 2.0E TOP CHORD BOT CHORD 2x6 SP 2400F 2.0E **WEBS** 2x4 SP No.2 \*Except\*

9-11: 2x6 SP No.1

REACTIONS. (size) 2=0-3-8, 11=0-3-8 Max Horz 2=237(LC 9)

Max Uplift 2=-61(LC 12), 11=-35(LC 12) Max Grav 2=1160(LC 19), 11=1086(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-1321/171, 3-4=-858/263, 7-8=-949/289, 8-9=-1131/222, 9-11=-1339/249

**BOT CHORD** 2-14=-115/970, 12-14=-115/970

**WEBS** 3-14=0/484, 4-7=-1001/298, 9-12=-144/1304

### 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-4-8, Exterior(2) 13-4-8 to 17-6-4, Interior(1) 17-6-4 to 22-2-12 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, 11.





Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422306 J0324-1647 **B4** COMMON 5 Job Reference (optional) Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:04 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

5-0-0

1-5-4

17-4-8

4-0-0

Scale = 1:59.7 4x6 =

22-7-0

2-9-4

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

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

except end verticals.

6-0-0 oc bracing: 11-12.

19-9-12

2-5-4

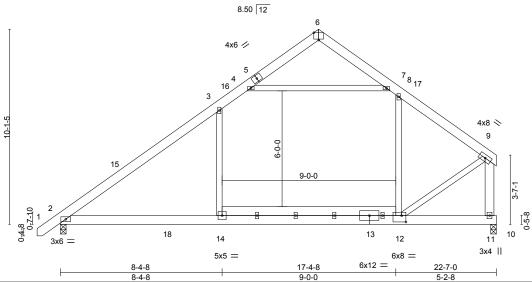


Plate Of	Plate Offsets (X,Y) [6:0-3-0,Edge], [12:0-2-12,0-4-0]												
LOADIN	G (psf)	SPACING-	2-0-0	CSI.			DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.34	\	Vert(LL)	-0.29	14	>900	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	\	Vert(CT)	-0.46	2-14	>574	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.94	H	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code IRC2015/T	PI2014	Matri	x-S	\	Wind(LL)	0.21	2-14	>999	240	Weight: 187 lb	FT = 20%
BCDL	10.0	Code IRC2015/11	P12014	IVIAUI	x-3	١ ،	vviiiu(LL)	0.21	2-14	7999	240	Weight. 167 ib	F1 - 20%

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

TOP CHORD 2x6 SP 2400F 2.0E 2x6 SP 2400F 2.0E **BOT CHORD WEBS** 2x4 SP No.2 \*Except\* 9-11: 2x6 SP No.1

(size) 2=0-3-8, 11=0-3-8

Max Horz 2=237(LC 9)

Max Uplift 2=-61(LC 12), 11=-35(LC 12) Max Grav 2=1160(LC 19), 11=1086(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-1321/171, 3-4=-858/263, 7-8=-949/289, 8-9=-1131/222, 9-11=-1339/249

**BOT CHORD** 2-14=-115/970, 12-14=-115/970

**WEBS** 3-14=0/484, 4-7=-1001/298, 9-12=-144/1304

### 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-4-8, Exterior(2) 13-4-8 to 17-6-4, Interior(1) 17-6-4 to 22-2-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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, 11.

6-11-4



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

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Job Truss Truss Type Qty Precision/76 Liberty Meadows/Harnett 164422307 J0324-1647 B5-GE **GABLE** Job Reference (optional)

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ID:qH4S SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 13-4-8 9-2-8

Scale = 1:62.7

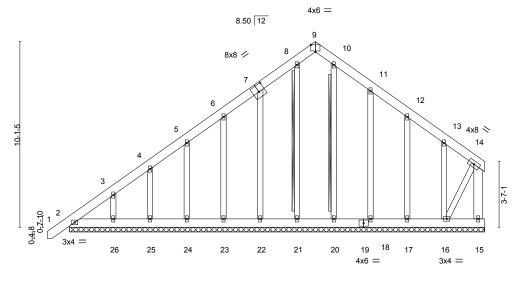


Plate Off	sets (X,Y)	[7:0-4-0,0-4-8], [9:0-3-0,Ed	igej									
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	15	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI	2014	Matri	x-S						Weight: 216 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1 **BOT CHORD** 2x6 SP No.1 2x6 SP No.1 \*Except\* **WEBS** 

14-16: 2x4 SP No.2

**OTHERS** 2x4 SP No.2 BRACING-TOP CHORD

**BOT CHORD WEBS** 

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

2x4 SPF No.2 - 8-21, 10-20 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 22-7-0.

(lb) -Max Horz 2=308(LC 12)

> Max Uplift All uplift 100 lb or less at joint(s) 2, 15, 21, 23, 24, 25, 17 except 22=-106(LC 12), 26=-116(LC 12), 18=-109(LC 13), 16=-290(LC 13) Max Grav All reactions 250 lb or less at joint(s) 2, 15, 21, 22, 23, 24, 25, 26, 20,

18, 17, 16

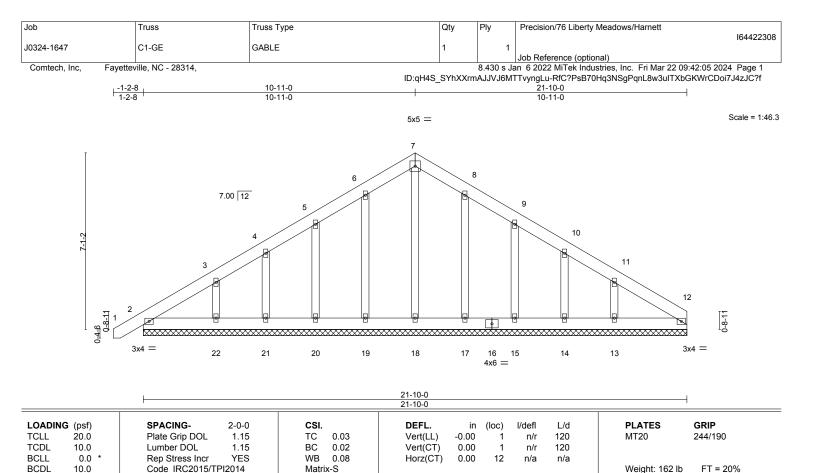
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-343/221

- 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 DOI = 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) 2, 15, 21, 23, 24, 25. 17 except (it=lb) 22=106, 26=116, 18=109, 16=290.
- 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.







BRACING-

TOP CHORD

BOT CHORD

LUMBER-

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

> All bearings 21-10-0. Max Horz 2=206(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 2, 19, 20, 21, 17, 15, 14 except 22=-119(LC 12), 13=-127(LC 13) Max Grav All reactions 250 lb or less at joint(s) 12, 2, 18, 19, 20, 21, 22, 17, 15, 14 except 13=262(LC 20)

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

### NOTES-

REACTIONS.

- 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
- 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.
- \* 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) 2, 19, 20, 21, 17, 15, 14 except (jt=lb) 22=119, 13=127.



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

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

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

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Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422309 J0324-1647 C2 COMMON 3 Job Reference (optional) Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:06 2024 Page 1 ID:qH4S SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 14-11-0 21-10-0 5-8-4 5-8-4 16-1-12 1-2-12 4-0-0 4-0-0 1-2-12 5-8-4 Scale = 1:42.8 4x6 = 5 2x4 = 2x4 = 7.00 12 2x4 || 2x4 || 3 13 12 0-8-11  $\aleph$ 10 11 9 3x6 = 3x6 =  $4x6 = 2x4 \parallel$ 2x4 || 21-10-0 6-11-0 Plate Offsets (X,Y)--[2:0-3-4,0-1-8], [5:0-3-0,Edge], [8:0-3-4,0-1-8]

DEFL.

Vert(LL)

Vert(CT)

Horz(CT)

Wind(LL)

**BRACING-**

TOP CHORD

**BOT CHORD** 

in (loc)

9-11

9-11

8

8-9

-0.16

-0.25

0.02

0.10

I/defl

>999

>999

>999

n/a

L/d

360

240

n/a

240

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

LUMBER-

TCLL

TCDL

**BCLL** 

**BCDL** 

LOADING (psf)

TOP CHORD 2x6 SP No.1 2x6 SP No.1 BOT CHORD **WEBS** 2x4 SP No.2

20.0

10.0

0.0

10.0

REACTIONS. (size) 8=0-3-8, 2=0-3-8 Max Horz 2=164(LC 11)

Max Uplift 8=-48(LC 13), 2=-65(LC 12) Max Grav 8=991(LC 20), 2=1062(LC 19)

SPACING-

Plate Grip DOL

Rep Stress Incr

Code IRC2015/TPI2014

Lumber DOL

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-1496/226, 3-4=-1096/286, 4-5=-99/546, 5-6=-88/548, 6-7=-1096/295,

7-8=-1488/229

2-11=-85/1171, 9-11=-85/1171, 8-9=-85/1171 BOT CHORD WEBS 7-9=0/455, 3-11=0/465, 4-6=-1740/441

### 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) -1-0-13 to 3-4-0, Interior(1) 3-4-0 to 10-11-0, Exterior(2) 10-11-0 to 15-0-12, Interior(1) 15-0-12 to 21-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

CSI.

TC

ВС

WB

Matrix-S

0.54

0.44

0.40

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

1.15

1.15

YES

- 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) 8, 2.



**PLATES** 

Weight: 131 lb

MT20

Structural wood sheathing directly applied or 5-8-1 oc purlins.

GRIP

244/190

FT = 20%

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

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Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422310 J0324-1647 C3 COMMON Job Reference (optional)

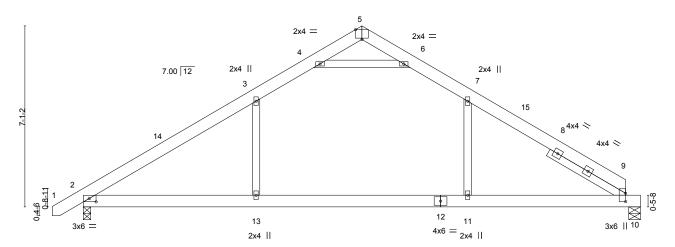
Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:06 2024 Page 1

ID:qH4S SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 14-11-0 16-1-12 21-10-0 5-8-4 5-8-4 1-2-12 4-0-0 4-0-0 1-2-12 5-8-4

> 4x6 = Scale = 1:45.1

> > Structural wood sheathing directly applied or 5-11-9 oc purlins.

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



14-11-0 21-10-0 6-11-0 Plate Offsets (X,Y)-- [2:0-3-4.0-1-8], [5:0-3-0,Edge], [9:0-3-14.0-0-0]

BRACING-

TOP CHORD

**BOT CHORD** 

1 1010 01	10010 (71, 17	[=:o o :;o : o]; [o:o o o;=ago]; [o:o o	,		
LOADIN	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL	20.0	Plate Grip DOL 1.15	TC 0.50	Vert(LL) -0.15 11-13 >999 360	MT20 244/190
TCDL	10.0	Lumber DOL 1.15	BC 0.47	Vert(CT) -0.23 11-13 >999 240	
BCLL	0.0 *	Rep Stress Incr YES	WB 0.39	Horz(CT) 0.02 10 n/a n/a	
BCDL	10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.10 2-13 >999 240	Weight: 135 lb FT = 20%

LUMBER-

2x6 SP No.1 TOP CHORD BOT CHORD 2x6 SP No.1 **WEBS** 2x4 SP No.2

**SLIDER** Right 2x4 SP No.2 3-5-8

REACTIONS. (size) 2=0-3-8, 10=0-5-8 Max Horz 2=164(LC 11)

Max Uplift 2=-65(LC 12), 10=-40(LC 13) Max Grav 2=1058(LC 19), 10=966(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-1478/222, 3-4=-1089/286, 4-5=-84/493, 5-6=-77/502, 6-7=-1079/292,

7-9=-1480/239

**BOT CHORD** 2-13=-82/1157, 11-13=-82/1157, 9-11=-82/1157 **WEBS** 7-11=0/492, 3-13=0/449, 4-6=-1664/425

### 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) -1-0-13 to 3-4-0, Interior(1) 3-4-0 to 10-11-0, Exterior(2) 10-11-0 to 15-0-12, Interior(1) 15-0-12 to 21-3-0 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, 10.





Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422311 J0324-1647 C4 **COMMON GIRDER** 3 Job Reference (optional) Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:07 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 21-6-8 21<sub>1</sub>10-0 0-3-8 5-8-4 5-8-4 5-2-12 5-2-12 5-4-12 6x6 || Scale = 1:42.8 4 7.00 12 3x6 / 5x8 <> 3 11 12 14 8 15 9 10 7 6x12 💸 10x10 = 2x6 || 8x12 || 4x12 | 5-8-4 5-8-4 10-11-0 21,10-0 5-2-12 Plate Offsets (X,Y)--[6:0-6-0,0-1-10], [7:0-8-0,0-2-0], [9:0-8-0,0-4-0]

DEFL.

Vert(LL)

Vert(CT)

Horz(CT)

Wind(LL)

**BRACING-**

**TOP CHORD** 

**BOT CHORD** 

in (loc)

7-9

7-9

6

-0.11

-0.16

0.04

0.02 9-10 I/def

>999

>999

>999

n/a

L/d

360

240

n/a

240

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

LUMBER-

TCLL

TCDL

**BCLL** 

**BCDL** 

LOADING (psf)

TOP CHORD 2x6 SP No.1

20.0

10.0

10.0

0.0

**BOT CHORD** 2x10 SP No.1 \*Except\*

6-8: 2x10 SP 2400F 2.0E

**WEBS** 2x4 SP No.2

REACTIONS. (size) 6=0-5-8, 2=0-3-8

Max Horz 2=163(LC 5)

Max Uplift 6=-239(LC 9), 2=-344(LC 8) Max Grav 6=10411(LC 14), 2=5203(LC 2)

SPACING-

Plate Grip DOL

Rep Stress Incr

Code IRC2015/TPI2014

Lumber DOL

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD  $2\hbox{-}3\hbox{-}9399/634,\ 3\hbox{-}4\hbox{-}-9235/507,\ 4\hbox{-}5\hbox{-}-9227/508,\ 5\hbox{-}6\hbox{-}-14864/410}$ **BOT CHORD** 2-10=-547/7934, 9-10=-547/7934, 7-9=-283/12602, 6-7=-283/12602

**WEBS** 4-9=-418/9052, 5-9=-5500/326, 5-7=-174/6154, 3-9=-947/266, 3-10=-116/783

1.15

1.15

NO

### NOTES-

1) 3-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: 2x10 - 4 rows staggered at 0-5-0 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.

CSI

TC

ВС

WB

Matrix-S

0.39

0.92

0.95

- 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) 6=239, 2=344.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2119 lb down and 477 lb up at 8-10-8, 2028 lb down at 10-1-12, 2320 lb down at 12-1-12, 2320 lb down at 14-1-12, 2320 lb down at 16-1-12, and 2320 lb down at 18-1-12, and 2320 lb down at 20-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

### LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-4=-60, 4-6=-60, 2-6=-20



**PLATES** 

Weight: 544 lb

MT20

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

**GRIP** 

244/190

FT = 20%

March 25,2024



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

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Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422311 COMMON GIRDER J0324-1647 C4 Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:07 2024 Page 2

Comtech, Inc, Fayetteville, NC - 28314,

ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 8=-598(F) 7=-598(F) 11=-2119(F) 12=-538(F) 13=-598(F) 14=-598(F) 15=-598(F)



Job Truss Truss Type Qty Precision/76 Liberty Meadows/Harnett 164422312 J0324-1647 D1-GE **GABLE** Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:07 2024 Page 1 Comtech, Inc, Fayetteville, NC - 28314, ID:qH4S SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 14-2-8

4x4 =

6-6-0

1-2-8

Scale = 1:29.9

6-6-0

8.00 12 6 3x6 =

Plate Off	rsets (X,Y)	[2:0-6-0,0-0-6], [4:0-6-0,0-0-6]		
LOADIN	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP
TCLL	20.0	Plate Grip DOL 1.15	TC 0.35	Vert(LL) -0.01 2-6 >999 360 MT20 244/190
TCDL	10.0	Lumber DOL 1.15	BC 0.17	Vert(CT) -0.03 2-6 >999 240
BCLL	0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00 4 n/a n/a
BCDL	10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.02 2-6 >999 240 Weight: 78 lb FT = 20%

BRACING-

**TOP CHORD** 

**BOT CHORD** 

LUMBER-

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

REACTIONS. (size) 2=0-3-8, 4=0-5-8

Max Horz 2=-154(LC 10)

Max Uplift 2=-136(LC 12), 4=-138(LC 13) Max Grav 2=586(LC 1), 4=592(LC 1)

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

2-3=-605/168, 3-4=-606/168 TOP CHORD **BOT CHORD** 2-6=-20/416, 4-6=-20/416

**WEBS** 3-6=0/323

- 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.
- 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.
- \* 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=136, 4=138.



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

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

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

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



Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422313 J0324-1647 D2 COMMON 3 Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:08 2024 Page 1 Fayetteville, NC - 28314, Comtech, Inc. ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 14-2-8 6-6-0 6-6-0 1-2-8 Scale = 1:29.9 4x4 = 8.00 12 10 6 3x6 = 3x6 2x4 ||

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

LOADING (psf) TCLL 20.0	SPACING- 2-0-0 Plate Grip DOL 1.15	<b>CSI.</b> TC 0.35	<b>DEFL.</b> in (loc) I/defl L/d Vert(LL) -0.01 2-6 >999 360	<b>PLATES GRIP</b> MT20 244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.17	Vert(CT) -0.03 2-6 >999 240	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00 4 n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.01 2-6 >999 240	Weight: 65 lb FT = 20%

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

2x4 SP No.1 TOP CHORD BOT CHORD 2x6 SP No.1 **WEBS** 2x4 SP No.2

REACTIONS. (size) 2=0-3-8, 4=0-5-8 Max Horz 2=-123(LC 10)

Max Uplift 2=-46(LC 12), 4=-46(LC 13) Max Grav 2=586(LC 1), 4=592(LC 1)

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

2-3=-605/154, 3-4=-606/154 TOP CHORD **BOT CHORD** 2-6=0/406, 4-6=0/406

WFBS 3-6=0/323

### 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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 6-6-0, Exterior(2) 6-6-0 to 10-10-13, Interior(1) 10-10-13 to 14-2-8 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



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

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



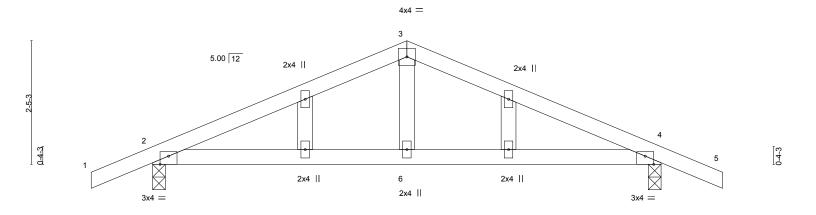
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett	
						164422314
J0324-1647	G1	GABLE	1	1		
					Job Reference (optional)	
Comtech, Inc, Fayet	teville, NC - 28314,			8.430 s Ja	an 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:08 202	4 Page 1
		ID:	qH4S_SYhXXrm	nAJJVJ6M	TTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7	7J4zJC?f
-1-2	·8 <sub>L</sub>	5-0-0			10-0-0 11-2-8	
1-2-	8	5-0-0			5-0-0 1-2-8	

Scale = 1:22.7



		-		5-0-0 5-0-0					5-0-0			
Plate Offs	sets (X,Y)	[2:0-2-0,Edge], [4:0-2-0,E	Edge]									
LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.04	4-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TI	PI2014	Matrix	(-S						Weight: 41 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

REACTIONS. (size) 2=0-3-0, 4=0-3-0

Max Horz 2=52(LC 12)

Max Uplift 2=-204(LC 8), 4=-204(LC 9) Max Grav 2=470(LC 1), 4=470(LC 1)

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

TOP CHORD 2-3=-588/691, 3-4=-588/691 BOT CHORD 2-6=-534/485, 4-6=-534/485

WEBS 3-6=-299/231

- 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) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas 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) 2=204, 4=204.



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

Rigid ceiling directly applied or 8-4-7 oc bracing.

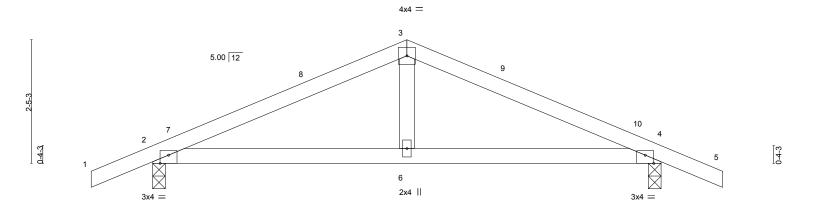
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Job		Truss	Truss Type	Qt	ty	Ply	Precision/76 Liberty Meadows/Harnett		
									164422315
J0324-1647		G2	COMMON	4		1			
							Job Reference (optional)		
Comtech, Inc,	Fayettev	ille, NC - 28314,				8.430 s Ja	n 6 2022 MiTek Industries, Inc. Fri Ma	r 22 09:42:09 202	4 Page 1
			II	D:qH4S_SY	/hXXrm/	AJJVJ6MT	TvyngLu-RfC?PsB70Hq3NSgPqnL8w3	ulTXbGKWrCDoi	7J4zJC?f
L	-1-2-8		5-0-0				10-0-0	11-2-8	
	1-2-8		5-0-0				5-0-0	1-2-8	

Scale = 1:22.7



				5-0-0 5-0-0					5-0-0			
Plate Offs	sets (X,Y)	[2:0-2-0,Edge], [4:0-2-0,E	Edge]									
LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TF	PI2014	Matrix	(-S	Wind(LL)	0.04	4-6	>999	240	Weight: 38 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

REACTIONS. (size) 2=0-3-0, 4=0-3-0

Max Horz 2=31(LC 12)

Max Uplift 2=-147(LC 8), 4=-147(LC 9) Max Grav 2=470(LC 1), 4=470(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-588/660, 3-4=-588/661

BOT CHORD 2-6=-507/485, 4-6=-507/485

WFBS 3-6=-300/231

### 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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-0-0, Exterior(2) 5-0-0 to 9-4-13, Interior(1) 9-4-13 to 11-2-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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=147, 4=147.



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

Rigid ceiling directly applied or 8-6-11 oc bracing.

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

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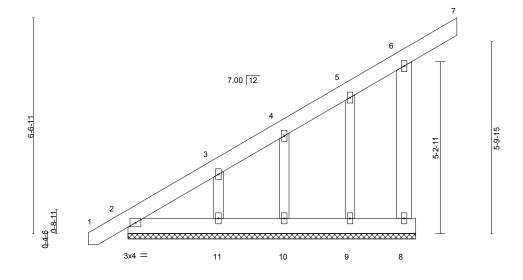
Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett
10004 4047	M4 0F	GABLE			164422316
J0324-1647	M1-GE	GABLE	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:09 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

10-0-0 -1-2-8 1-2-8 8-9-0 1-3-0

Scale = 1:35.0



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	0.06	Vert(LL)	0.00	7	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	6	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/TF	PI2014	Matri	x-P						Weight: 74 lb	FT = 20%

LUMBER-BRACING-

TOP CHORD 2x6 SP No.1 BOT CHORD 2x6 SP No.1 2x6 SP No.1 WEBS

**OTHERS** 2x4 SP No.2 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 8-9-0.

Max Horz 2=293(LC 12) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 9, 10 except 8=-130(LC 12), 11=-121(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 8, 2, 9, 10, 11

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

TOP CHORD 2-3=-333/250

### 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; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 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.
- \* 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) 9, 10 except (jt=lb) 8=130, 11=121.





Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422317 J0324-1647 M2 JACK-CLOSED 5

Fayetteville, NC - 28314, Comtech, Inc.

Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:10 2024 Page 1

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

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

except end verticals.

ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 10-0-0 8-9-0 1-3-0

Scale = 1:37.6

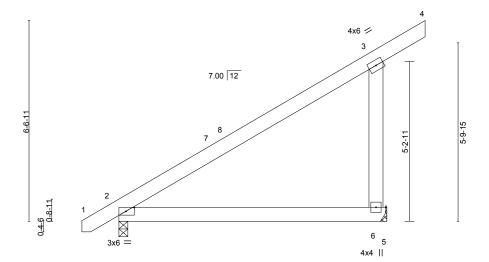


Plate Off	fsets (X,Y)	[2:0-3-4,0-1-8]										
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.03	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.06	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TF	PI2014	Matri	x-P	Wind(LL)	0.02	2-6	>999	240	Weight: 62 lb	FT = 20%

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

2x6 SP No.1 TOP CHORD BOT CHORD 2x6 SP No.1

**WEBS** 2x6 SP No.1

REACTIONS. (size) 6=Mechanical, 2=0-3-8 Max Horz 2=201(LC 12)

Max Uplift 6=-122(LC 12) Max Grav 6=456(LC 19), 2=399(LC 1)

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

TOP CHORD 3-6=-363/312

### 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) -1-0-13 to 3-4-0, Interior(1) 3-4-0 to 10-0-0 zone; 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.
- \* 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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=122.





Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422318 J0324-1647 М3 Flat Job Reference (optional)
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:10 2024 Page 1 Comtech, Inc, Fayetteville, NC - 28314, ID:qH4S SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 5-9-8 5-9-8 5-9-8

> 2x4 || 4x6 = ß 8  $\square$  $\nabla$ 12 5 4 6x8 = 3x4 II

Plate Off	sets (X,Y)	[5:0-4-0,0-4-4]			
LOADIN	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL	20.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) -0.03 5-6 >999 360	MT20 244/190
TCDL	10.0	Lumber DOL 1.15	BC 0.40	Vert(CT) -0.06 5-6 >999 240	
BCLL	0.0 *	Rep Stress Incr NO	WB 0.24	Horz(CT) 0.00 4 n/a n/a	
BCDL	10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03 5-6 >999 240	Weight: 198 lb FT = 20%

BRACING-

**TOP CHORD** 

**BOT CHORD** 

LUMBER-

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

REACTIONS. (size) 6=0-3-8, 4=Mechanical

Max Uplift 6=-565(LC 8), 4=-457(LC 8) Max Grav 6=2282(LC 1), 4=2139(LC 1)

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

TOP CHORD 1-6=-1606/650, 1-2=-1629/554, 2-3=-1629/554, 3-4=-1431/545

WEBS 1-5=-679/1988, 2-5=-320/244, 3-5=-679/1988

### 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: 2x6 - 2 rows staggered at 0-9-0 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.
- 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) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 11-4-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=565, 4=457.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 175 lb down and 145 lb up at 0-2-12 on top chord, and 418 lb down and 142 lb up at 1-10-12, 418 lb down and 142 lb up at 3-10-12, 418 lb down and 142 lb up at 5-10-12, and 418 lb down and 142 lb up at 7-10-12, and 418 lb down and 142 lb up at 9-10-12 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

2-0-0 oc purlins (6-0-0 max.): 1-3, except end verticals.

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

March 25,2024

Scale = 1:30.7

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job Truss Truss Type Qty Ply Precision/76 Liberty Meadows/Harnett 164422318 Flat J0324-1647 М3 | **Z** | Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:10 2024 Page 2

Comtech, Inc, Fayetteville, NC - 28314,

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LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-3=-60, 4-6=-134(F=-114)
Concentrated Loads (lb)

Vert: 1=-175 5=-418(B) 9=-418(B) 10=-418(B) 11=-418(B) 12=-418(B)

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

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818 Soundside Road Edenton, NC 27932

Job Truss Truss Type Qty Precision/76 Liberty Meadows/Harnett 164422319 Р1 J0324-1647 MONOPITCH Job Reference (optional) Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Mar 22 09:42:11 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 6-2-0 0-10-8 6-2-0 Scale = 1:13.8 2x4 || 3 3.50 12 1-9-11 0-4-0 2x4 = 2x4 || Plate Offsets (X,Y)--[2:0-0-2,Edge] SPACING-**PLATES GRIP** LOADING (psf) CSI. DEFL. in (loc) I/defl L/d TCLL 20.0 Plate Grip DOL 1.15 TC 0.47 Vert(LL) -0.06 2-4 >999 360 244/190 MT20 TCDL 10.0 Lumber DOL 1.15 ВС 0.32 Vert(CT) -0.12 2-4 >582 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) 0.00 n/a n/a Code IRC2015/TPI2014 Wind(LL) FT = 20% **BCDL** 10.0 Matrix-P 2-4 >526 240 Weight: 23 lb 0.13

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

**WEBS** 2x6 SP No.1

REACTIONS. (size) 2=0-3-0, 4=0-1-8 Max Horz 2=68(LC 8)

Max Uplift 2=-120(LC 8), 4=-95(LC 8) Max Grav 2=298(LC 1), 4=227(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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 5-11-4 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
- 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 = 120

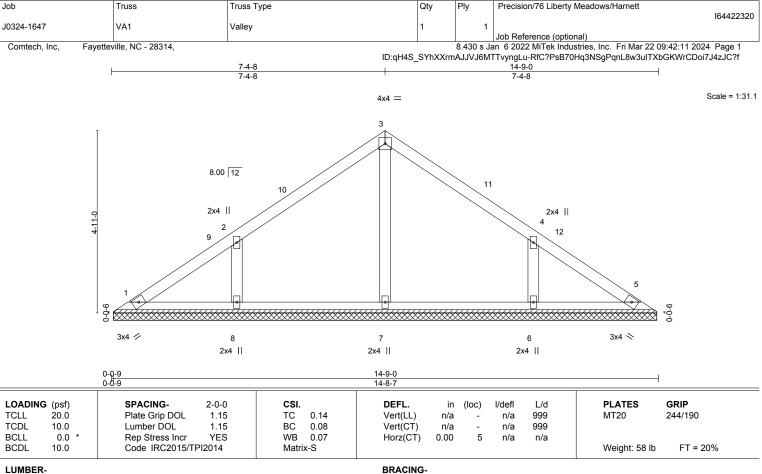


Structural wood sheathing directly applied or 6-0-0 oc purlins,

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

except end verticals.





TOP CHORD

BOT CHORD

LUMBER-

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

BOT CHORD **OTHERS** 2x4 SP No.2

REACTIONS. All bearings 14-7-14 Max Horz 1=-110(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=257(LC 1), 8=348(LC 19), 6=348(LC 20)

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

2-8=-297/202, 4-6=-297/202 WEBS

### 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) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 7-4-8, Exterior(2) 7-4-8 to 11-9-5, Interior(1) 11-9-5 to 14-3-1 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, 8, 6.



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

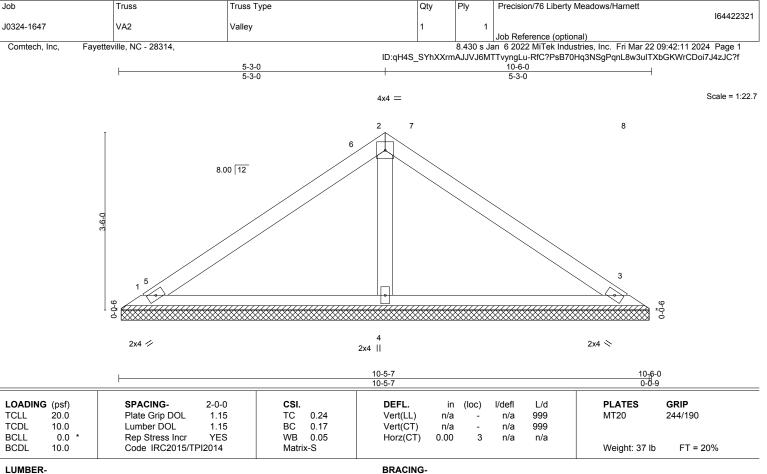
Rigid ceiling directly applied or 10-0-0 oc bracing.

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

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building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)





TOP CHORD

BOT CHORD

LUMBER-

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

**OTHERS** 2x4 SP No.2

REACTIONS.

1=10-4-14, 3=10-4-14, 4=10-4-14 (size) Max Horz 1=-76(LC 8)

Max Uplift 1=-24(LC 12), 3=-31(LC 13) Max Grav 1=189(LC 1), 3=189(LC 1), 4=383(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) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 5-3-0, Exterior(2) 5-3-0 to 9-7-13, Interior(1) 9-7-13 to 10-0-1 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.
- \* 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.



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

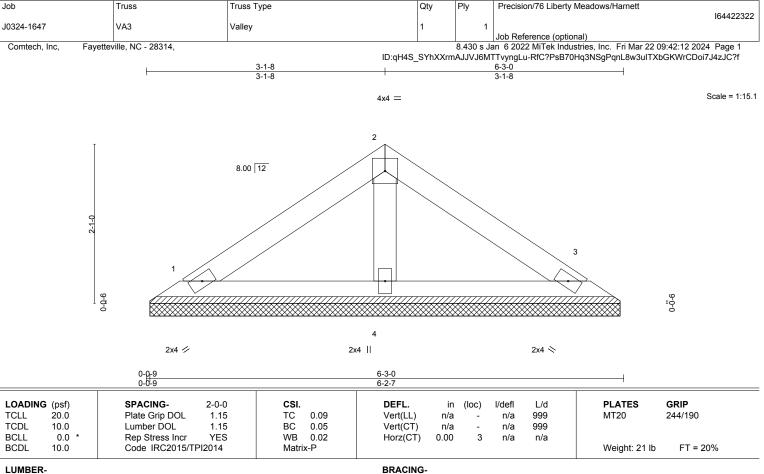
Rigid ceiling directly applied or 10-0-0 oc bracing.

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

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TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

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

**OTHERS** 2x4 SP No.2

(size)

Max Horz 1=-42(LC 8)

Max Uplift 1=-18(LC 12), 3=-22(LC 13)

Max Grav 1=115(LC 1), 3=115(LC 1), 4=192(LC 1)

1=6-1-14, 3=6-1-14, 4=6-1-14

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.



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

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

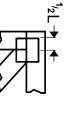
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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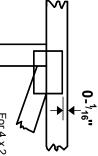


### Symbols

## PLATE LOCATION AND ORIENTATION



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



edge of truss. plates 0- 1/16" from outside For 4 x 2 orientation, locate

₹

connector plates required direction of slots in This symbol indicates the

\* Plate location details available in MiTek software or upon request

### **PLATE SIZE**

4 × 4

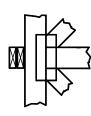
to slots. Second dimension is the length parallel to slots. width measured perpendicular The first dimension is the plate

## LATERAL BRACING LOCATION



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

### **BEARING**



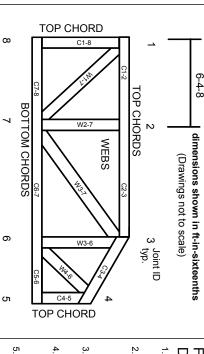
Min size shown is for crushing only number/letter where bearings occur reaction section indicates joint (supports) occur. Icons vary but Indicates location where bearings

### Industry Standards:

DSB-22:

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

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

## Design General Notes

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

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

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## MiTek



MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

# General Safety Notes

### Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Ņ 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.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses
- 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
- 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.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

œ

- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the camber for dead load deflection responsibility of truss fabricator. General practice is to
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- 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
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use environmental, health or performance risks. Consult with
- 19. Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- 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



RE: J0324-1648

Precision/76 Liberty Meadows/Harnett

**Trenco** 

818 Soundside Rd Edenton, NC 27932

**Site Information:** 

Customer: Project Name: J0324-1648

Lot/Block: Model:
Address: Subdivision:
City: State:

### 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 15 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	163819705	ET1	2/26/2024
2	163819706	ET2	2/26/2024
3	163819707	ET3	2/26/2024
4	163819708	F1	2/26/2024
5	163819709	F2	2/26/2024
6	163819710	F3	2/26/2024
7	163819711	F4	2/26/2024
8	163819712	F5	2/26/2024
9	163819713	F6	2/26/2024
10	163819714	F6A	2/26/2024
11	163819715	F7	2/26/2024
12	163819716	F8	2/26/2024
13	163819717	FG-1	2/26/2024
14	163819718	FG-2	2/26/2024
15	163819719	FG-3	2/26/2024

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, 2024

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.



February 26, 2024

Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett	
J0324-1648	ET1	GABLE	1	1		163819705
00024-1040		OABLE	'		Job Reference (optional)	

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:48 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

0-1-8



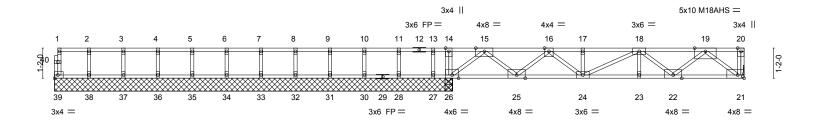
2-0-12

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

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

except end verticals.

Scale = 1:44.6



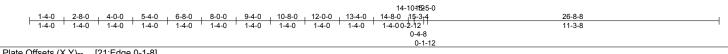


Plate Offsets (A, f)	[21.Euge,0-1-0]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.77	Vert(LL) -0.14 24 >945 480	MT20 244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.59	Vert(CT) -0.20 23-24 >686 360	M18AHS 186/179
BCLL 0.0	Rep Stress Incr NO	WB 0.82	Horz(CT) 0.05 21 n/a n/a	
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 124 lb FT = 20%F, 11%E

TOP CHORD

**BOT CHORD** 

LUMBER-**BRACING-**

2x4 SP No.1(flat) \*Except\* TOP CHORD

12-20: 2x4 SP 2400F 2.0E(flat) 2x4 SP No.1(flat) \*Except\*

21-29: 2x4 SP 2400F 2.0E(flat) WEBS 2x4 SP No.3(flat)

2x4 SP No.3(flat) **OTHERS** 

REACTIONS. All bearings 15-5-0 except (jt=length) 21=Mechanical.

(lb) - Max Uplift All uplift 100 lb or less at joint(s) except 27=-335(LC 4)

Max Grav All reactions 250 lb or less at joint(s) 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 28 except

26=2437(LC 1), 26=2437(LC 1), 26=2437(LC 1), 21=2049(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 15-16=-3702/0, 16-17=-5519/0, 17-18=-5519/0, 18-19=-3827/0 **BOT CHORD** 25-26=0/2382, 24-25=0/5044, 23-24=0/5188, 22-23=0/5188, 21-22=0/2500 WEBS 14-26=-445/0, 15-26=-2985/0, 15-25=0/1719, 16-25=-1747/0, 16-24=0/606, 17-24=-499/0, 19-21=-3137/0, 19-22=0/1727, 18-22=-1738/0, 18-24=0/366

### NOTES-

**BOT CHORD** 

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 1.5x3 MT20 unless otherwise indicated.
- 4) Plates checked for a plus or minus 1 degree rotation about its center.
- 5) Gable studs spaced at 1-4-0 oc.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 335 lb uplift at joint 27.
- 8) Magnitude of user added load(s) on this truss have been applied uniformly across all gravity load cases with no adjustments.
- 9) 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.

10) 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: 21-39=-10, 1-14=-100, 14-20=-355



February 26,2024



Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett	7
J0324-1648	ETO	GABLE	4	_	I63819706	
JU324-1040	E12	GABLE	'	'	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

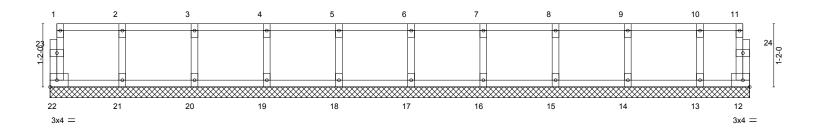
0118

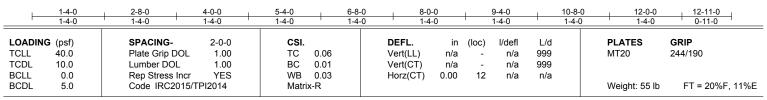
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:50 2024 Page 1

ID:qH4S SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

0<sub>1</sub>1<sub>7</sub>8

Scale = 1:21.3





LUMBER-BRACING-

TOP CHORD 2x4 SP No.1(flat) 2x4 SP No.1(flat) BOT CHORD

2x4 SP No.3(flat) WEBS **OTHERS** 2x4 SP No.3(flat) TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 12-11-0.

(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 20, 19, 18, 17, 16, 15, 14, 13

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.



February 26,2024



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent bucking of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett
J0324-1648	ET2	GABLE	1	1	163819707
30324-1046	[213	GABLE	'	'	Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc,

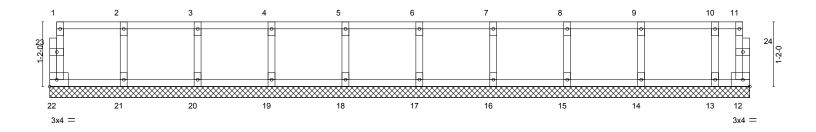
0<sub>1</sub>1<sub>7</sub>8

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:50 2024 Page 1

ID:qH4S SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

0<sub>1</sub>1<sub>7</sub>8

Scale = 1:20.8



1-4-0 1-4-0	2-8-0 4-0-0 1-4-0 1-4-0		-8-0 8-0-0 -4-0 1-4-0		0-8-0 12-0-0 12-7-8  -4-0 1-4-0 0-7-8
LOADING (psf) TCLL 40.0 TCDL 10.0 BCLL 0.0 BCDL 5.0	SPACING- 2-0-0 Plate Grip DOL 1.00 Lumber DOL 1.00 Rep Stress Incr YES Code IRC2015/TPI2014	CSI. TC 0.06 BC 0.01 WB 0.03 Matrix-R	DEFL. in Vert(LL) n/a Vert(CT) n/a Horz(CT) 0.00	(loc) I/defl L/d - n/a 999 - n/a 999 12 n/a n/a	PLATES GRIP MT20 244/190  Weight: 54 lb FT = 20%F, 11%E

LUMBER-BRACING-

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

**OTHERS** 2x4 SP No.3(flat) TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 12-7-8.

(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 20, 19, 18, 17, 16, 15, 14, 13

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

- 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.



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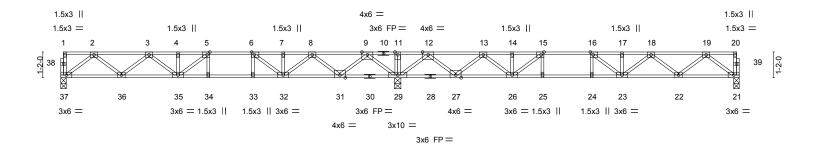


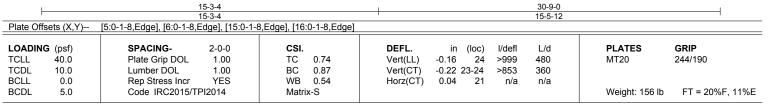
Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett
					163819708
J0324-1648	F1	Floor	2	1	
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:52 2024 Page 1 ID:qH4S SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f







LUMBER-**BRACING-**

TOP CHORD 2x4 SP No.1(flat) TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, BOT CHORD 2x4 SP No.1(flat) except end verticals. **WEBS** 2x4 SP No.3(flat)

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

6-0-0 oc bracing: 31-32,29-31,27-29,26-27.

REACTIONS. (size) 37=0-3-0, 29=0-3-8, 21=0-3-0

Max Grav 37=728(LC 3), 29=1989(LC 1), 21=739(LC 4)

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

TOP CHORD 2-3=-1450/0, 3-4=-2252/0, 4-5=-2252/0, 5-6=-2276/0, 6-7=-1763/236, 7-8=-1763/236,

8-9=-521/736, 9-11=0/2242, 11-12=0/2242, 12-13=-518/703, 13-14=-1787/207,

14-15=-1787/207, 15-16=-2337/0, 16-17=-2305/0, 17-18=-2305/0, 18-19=-1476/0 36-37=0/901, 35-36=0/1969, 34-35=0/2276, 33-34=0/2276, 32-33=0/2276,

**BOT CHORD** 31-32=-456/1270, 29-31=-1091/0, 27-29=-1110/0, 26-27=-424/1283, 25-26=0/2337,

24-25=0/2337, 23-24=0/2337, 22-23=0/2008, 21-22=0/915

2-37=-1128/0, 2-36=0/714, 3-36=-676/0, 3-35=0/362, 9-29=-1522/0, 9-31=0/1113,

8-31=-1065/0, 19-21=-1146/0, 19-22=0/730, 18-22=-693/0, 18-23=0/380, 12-29=-1537/0, 12-27=0/1128, 13-27=-1079/0, 8-32=0/707, 6-32=-977/0, 5-35=-140/390, 13-26=0/717,

15-26=-1020/0, 16-23=-156/376

### NOTES-

**WEBS** 

- 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.



February 26,2024



Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett
			_		163819709
J0324-1648	F2	Floor	5	1	
					Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:53 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

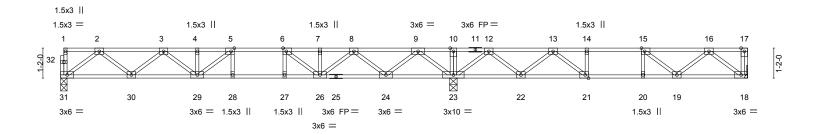


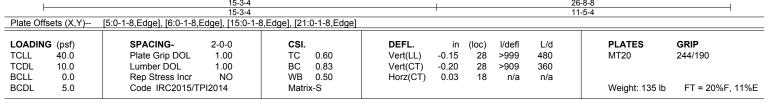
2-0-12

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

except end verticals.

Scale = 1:44.8





LUMBER-**BRACING-**TOP CHORD

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

2x4 SP No.3(flat) **BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 31=0-3-0, 23=0-3-8, 18=Mechanical Max Grav 31=741(LC 3), 23=1724(LC 1), 18=2340(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 17-18=-1835/0, 2-3=-1483/0, 3-4=-2315/0, 4-5=-2315/0, 5-6=-2372/0, 6-7=-1892/0,

7-8=-1892/0, 8-9=-677/263, 9-10=0/1758, 10-12=0/1758, 12-13=-482/640,

13-14=-1242/104, 14-15=-1242/104, 15-16=-965/0 **BOT CHORD** 30-31=0/919, 29-30=0/2017, 28-29=0/2372, 27-28=0/2372, 26-27=0/2372,

24-26=-29/1412, 23-24=-586/0, 22-23=-886/0, 21-22=-389/968, 20-21=-104/1242,

19-20=-104/1242, 18-19=0/652

**WEBS** 2-31=-1150/0, 2-30=0/735, 3-30=-696/0, 3-29=0/380, 9-23=-1470/0, 9-24=0/1058,

8-24=-1014/0, 12-23=-1169/0, 12-22=0/754, 13-22=-766/0, 16-18=-818/0,

16-19=-46/407, 8-26=0/663, 6-26=-851/0, 5-29=-270/264, 15-19=-354/175, 13-21=0/672,

### 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: 18-31=-10. 1-17=-100

Concentrated Loads (lb) Vert: 17=-1800



February 26,2024



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall a duss system. Before use, the culturing design indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett
10224 4649		GABLE	,	_	163819710
J0324-1648	1-3	GABLE	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:55 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Scale = 1:44.5

0-1-8 H|-3-0 1-10-12

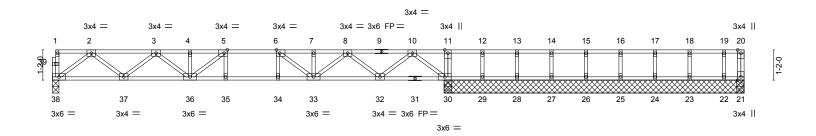




Plate Offsets (x, t) [5.0-1-6,Euge], [6.0-1-6,Euge]					
LOADING	G (psf)	SPACING- 2-0-0	CSI.	<b>DEFL.</b> in (loc) I/defl L/d	PLATES GRIP
TCLL	40.0	Plate Grip DOL 1.00	TC 0.27	Vert(LL) -0.16 34-35 >999 480	MT20 244/190
TCDL	10.0	Lumber DOL 1.00	BC 0.56	Vert(CT) -0.22 34-35 >842 360	I
BCLL	0.0	Rep Stress Incr YES	WB 0.41	Horz(CT) 0.04 21 n/a n/a	I
BCDL	5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 127 lb FT = 20%F, 11%E
					·

LUMBER-**BRACING-**

TOP CHORD 2x4 SP No.1(flat) TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, BOT CHORD 2x4 SP No.1(flat) except end verticals. **WEBS** 2x4 SP No.3(flat) **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing. **OTHERS** 2x4 SP No.3(flat)

REACTIONS. All bearings 11-7-0 except (jt=length) 38=0-3-0, 30=0-3-8, 30=0-3-8.

(lb) - Max Uplift All uplift 100 lb or less at joint(s) 29

Max Grav All reactions 250 lb or less at joint(s) 21, 21, 29, 28, 27, 26, 25, 24, 23, 22 except 38=821(LC 3), 30=992(LC 1), 30=992(LC 1)

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

TOP CHORD 2-3=-1684/0, 3-4=-2691/0, 4-5=-2691/0, 5-6=-2945/0, 6-7=-2663/0, 7-8=-2663/0, 8-10=-1613/0

**BOT CHORD** 37-38=0/1023, 36-37=0/2310, 35-36=0/2945, 34-35=0/2945, 33-34=0/2945, 32-33=0/2266, 30-32=0/954

2-38=-1281/0, 2-37=0/860, 3-37=-815/0, 3-36=0/487, 10-30=-1196/0, 10-32=0/860, 8-32=-852/0, 8-33=0/507, 6-33=-355/0, 5-36=-318/0

### NOTES-

WEBS

- 1) Unbalanced floor live loads have been considered for this design.
- All plates are 1.5x3 MT20 unless otherwise indicated.
- 3) Plates checked for a plus or minus 1 degree rotation about its center.
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29.
- 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.



February 26,2024



Job Truss Truss Type Qty Precision/76 Liberty Meadows/Harnett 163819711 J0324-1648 F4 Floor 3 Job Reference (optional)

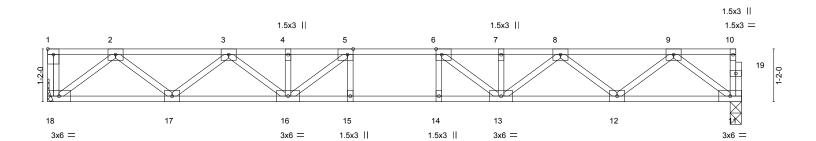
Fayetteville, NC - 28314, Comtech, Inc.

1-3-0

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:56 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

1-10-0 0<sub>1</sub>1<sub>7</sub>8

Scale = 1:25.5



15-4-0 Plate Offsets (X,Y)--[1:Edge,0-1-8], [5:0-1-8,Edge], [6:0-1-8,Edge] SPACING-LOADING (psf) CSI. DEFL. (loc) L/d **PLATES** GRIP -0.16 14-15 TCLL 40.0 Plate Grip DOL 1.00 TC 0.35 Vert(LL) >999 480 MT20 244/190 TCDL 10.0 Lumber DOL 1.00 ВС 0.66 Vert(CT) -0.22 14-15 >839 360 BCLL 0.0 Rep Stress Incr YES WB 0.41 Horz(CT) 0.04 n/a n/a 11 Code IRC2015/TPI2014 Weight: 79 lb FT = 20%F, 11%E **BCDL** 5.0 Matrix-S

LUMBER-**BRACING-**

2x4 SP No.1(flat) TOP CHORD TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, BOT CHORD 2x4 SP No.1(flat) except end verticals.

**WEBS** 2x4 SP No.3(flat) **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 18=Mechanical, 11=0-3-0 Max Grav 18=830(LC 1), 11=823(LC 1)

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

TOP CHORD 2-3=-1691/0, 3-4=-2704/0, 4-5=-2704/0, 5-6=-2966/0, 6-7=-2704/0, 7-8=-2704/0,

8-9=-1691/0

17-18=0/1028, 16-17=0/2320, 15-16=0/2966, 14-15=0/2966, 13-14=0/2966, 12-13=0/2320,

11-12=0/1027 WFBS 2-18=-1289/0, 2-17=0/864, 3-17=-818/0, 3-16=0/490, 5-16=-596/25, 9-11=-1285/0,

9-12=0/865, 8-12=-819/0, 8-13=0/490, 6-13=-596/25

### NOTES-

BOT CHORD

- 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.



February 26,2024



Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett
			_		I63819712
J0324-1648	F5	Floor	3	1	
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:57 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

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

except end verticals.





Scale = 1:25.1

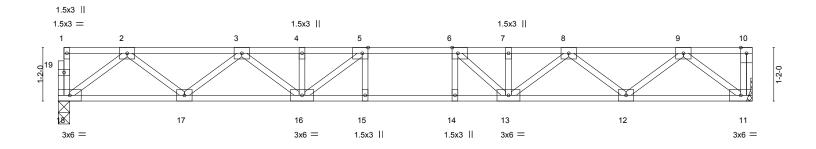


Plate Offsets (X,Y)--[5:0-1-8,Edge], [6:0-1-8,Edge] LOADING (psf) SPACING-CSI. DEFL. (loc) L/d **PLATES** GRIP TCLL 40.0 Plate Grip DOL 1.00 TC 0.36 Vert(LL) -0.15 15 >999 480 244/190 MT20 TCDL 10.0 Lumber DOL 1.00 ВС 0.66 Vert(CT) -0.21 14-15 >867 360 BCLL 0.0 Rep Stress Incr YES WB 0.40 0.04 Horz(CT) n/a 11 n/a Code IRC2015/TPI2014 Weight: 78 lb FT = 20%F. 11%E **BCDL** 5.0 Matrix-S

TOP CHORD

LUMBER-**BRACING-**

TOP CHORD 2x4 SP No.1(flat) BOT CHORD 2x4 SP No.1(flat) BOT CHORD

**WEBS** 2x4 SP No.3(flat) **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 18=0-3-0, 11=Mechanical Max Grav 18=812(LC 1), 11=818(LC 1)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-3=-1662/0, 3-4=-2649/0, 4-5=-2649/0, 5-6=-2884/0, 6-7=-2641/0, 7-8=-2641/0, 8-9=-1663/0

BOT CHORD

 $17-18=0/1012,\ 16-17=0/2278,\ 15-16=0/2884,\ 14-15=0/2884,\ 13-14=0/2884,\ 12-13=0/2278,$ 11-12=0/1012

> 2-18=-1267/0, 2-17=0/846, 3-17=-802/0, 3-16=0/475, 5-16=-562/38, 9-11=-1270/0, 9-12=0/847, 8-12=-800/0, 8-13=0/464, 6-13=-587/29

### NOTES-

WFBS

- 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.



February 26,2024

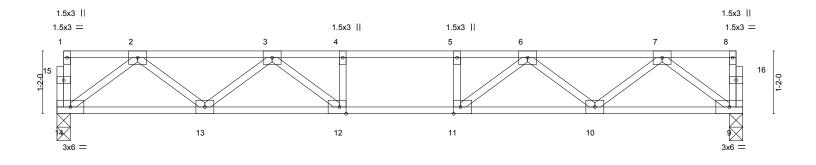


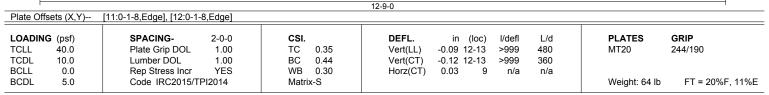
Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett
	F0				I63819713
J0324-1648	F6	Floor	9	1	
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:58 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f







LUMBER-BRACING-

TOP CHORD 2x4 SP No.1(flat) BOT CHORD 2x4 SP No.1(flat) TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

BOT CHORD except end verticals.

**WEBS** 2x4 SP No.3(flat) **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 14=0-3-0, 9=0-3-0 Max Grav 14=681(LC 1), 9=681(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-3=-1333/0, 3-4=-2022/0, 4-5=-2022/0, 5-6=-2022/0, 6-7=-1333/0

**BOT CHORD** 13-14=0/841, 12-13=0/1790, 11-12=0/2022, 10-11=0/1790, 9-10=0/841 2-14=-1053/0, 2-13=0/640, 3-13=-595/0, 3-12=0/499, 7-9=-1053/0, 7-10=0/640, WEBS

6-10=-595/0, 6-11=0/499

### NOTES-

TOP CHORD

- 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.



February 26,2024

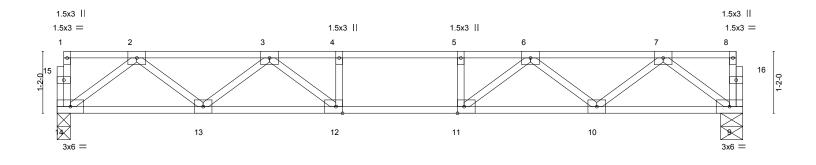


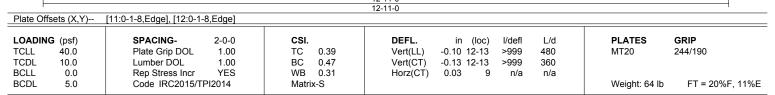
Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett
10004 4040	504				I63819714
J0324-1648	F6A	Floor	3	1	
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:59 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f







LUMBER-BRACING-

TOP CHORD 2x4 SP No.1(flat) BOT CHORD 2x4 SP No.1(flat) TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

BOT CHORD except end verticals.

**WEBS** 2x4 SP No.3(flat) **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 14=0-3-0, 9=0-5-0 Max Grav 14=690(LC 1), 9=690(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-1356/0, 3-4=-2072/0, 4-5=-2072/0, 5-6=-2072/0, 6-7=-1356/0 BOT CHORD 13-14=0/854, 12-13=0/1823, 11-12=0/2072, 10-11=0/1823, 9-10=0/854 2-14=-1069/0, 2-13=0/654, 3-13=-609/0, 3-12=0/526, 4-12=-251/0, 5-11=-251/0, WEBS

7-9=-1069/0, 7-10=0/654, 6-10=-609/0, 6-11=0/526

### 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.



February 26,2024

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

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



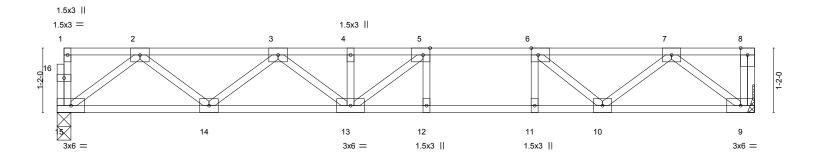
Job	Truss	Truss Type	Qty	Ply	Precision/76 Liberty Meadows/Harnett
					l63819715
J0324-1648	F7	FLOOR	8	1	
					Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

0-1-8

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:59 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f





·			12-7-8	·
Plate Offsets (X,Y)	[5:0-1-8,Edge], [6:0-1-8,Edge]			
-				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.48	Vert(LL) -0.14 12-13 >999 480	MT20 244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.78	Vert(CT) -0.18 12-13 >821 360	
BCLL 0.0	Rep Stress Incr YES	WB 0.32	Horz(CT) 0.02 9 n/a n/a	
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 65 lb FT = 20%F, 11%E
TCLL 40.0 TCDL 10.0 BCLL 0.0	Plate Grip DOL 1.00 Lumber DOL 1.00 Rep Stress Incr YES	TC 0.48 BC 0.78 WB 0.32	Vert(LL) -0.14 12-13 >999 480 Vert(CT) -0.18 12-13 >821 360	MT20 244/190

12-7-8

LUMBER-**BRACING-**

TOP CHORD 2x4 SP No.1(flat) TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, **BOT CHORD** 2x4 SP No.1(flat)

except end verticals. **WEBS** 2x4 SP No.3(flat) **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 15=0-3-0, 9=Mechanical Max Grav 15=674(LC 1), 9=681(LC 1)

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

2-3=-1313/0, 3-4=-1995/0, 4-5=-1995/0, 5-6=-1895/0, 6-7=-1327/0 BOT CHORD

14-15=0/831, 13-14=0/1770, 12-13=0/1895, 11-12=0/1895, 10-11=0/1895, 9-10=0/807 WEBS  $2-15 = -1040/0, \ 2-14 = 0/628, \ 3-14 = -594/0, \ 3-13 = 0/288, \ 5-13 = -224/289, \ 7-9 = -1012/0, \ 3-14 = -1040/0,$ 

7-10=0/677, 6-10=-745/0

### 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.



February 26,2024



ob	Truss	Truss Typ	е	Qty	Ply	Precision	n/76 Liberty Me	eadows/Harnett	10001
0324-1648	F8	Floor		1		1			I63819716
		1 1001		'		Job Re	ference (optiona		
Comtech, Inc, F	ayetteville, NC - 28314,			15 1110 01110					8:31:00 2024 Page 1
		3x4 =		. –	(rmAJJVJ61	MIIvyngL	u-RfC?PsB70H	q3NSgPqnL8w3u11Xt	oGKWrCDoi7J4zJC?f
	0-9-0			2-0-0		3		4	0-1-8
	1 3x4	2				3	3x4 =	4 1.5x3	   Scale = 1:8.5
									Scale = 1.6.5
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		/ •						-	
						-	$\rightarrow$		9
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		/							<b>-</b>
1-2-0									3x4 = 0
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	3x6 =	1.5x3				1.	5x3		
	8	7				6		5	7
								X	
								<u> </u>	
								3x6 =	
	<del></del>			4-3-0 4-3-0					<del> </del>
Plate Offsets (X,Y)	[1:Edge,0-1-8], [2:0-1-8,Edg	e], [3:0-1-8,Ed	ge], [9:0-1-8,0-1-8]						
LOADING (psf)	SPACING- 2	2-0-0	CSI.	DEFL.	in (loc)	I/dof!	I /d	PLATES	GRIP
TCLL 40.0		1.00	TC 0.13	Vert(LL) -0.	in (loc) 00 6	l/defl >999	L/d 480	MT20	244/190
TCDL 10.0		1.00	BC 0.06	Vert(CT) -0.		>999	360	111120	2111100
BCLL 0.0		YES	WB 0.06	Horz(CT) 0.	00 5	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2	014	Matrix-S					Weight: 24 lb	FT = 20%F, 11%E
LUMBER-	<u> </u>			BRACING-					
TOP CHORD 2x4 S	SP No.1(flat)			TOP CHORD	Structu	ural wood	sheathing dire	ectly applied or 4-3-0	oc purlins,
	SP No.1(flat)					t end verti			
WEBS 2x4 S	SP No.3(flat)			BOT CHORD	Rigid o	ceiling dire	ectly applied or	10-0-0 oc bracing.	

**WEBS** NOTES-

REACTIONS.

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

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

2) Plates checked for a plus or minus 1 degree rotation about its center.

(size) 8=Mechanical, 5=0-3-0 Max Grav 8=220(LC 1), 5=214(LC 1)

2-8=-273/0, 3-5=-272/0

- 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.





818 Soundside Road Edenton, NC 27932

Job Truss Truss Type Qty Precision/76 Liberty Meadows/Harnett 163819717 J0324-1648 FG-1 **GABLE** Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:31:01 2024 Page 1 ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

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

5-6-0 1-3-0

0-11-0 2-0-0

Scale = 1:25.3

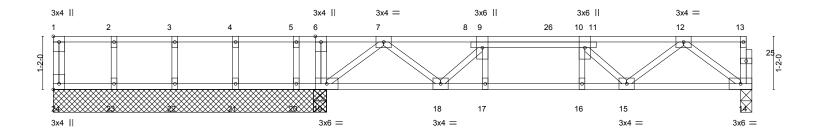




Plate Off	rsets (X,Y)	[1:Edge,0-1-8], [24:Edge,0-1-8]			
LOADIN	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP	
TCLL	40.0	Plate Grip DOL 1.00	TC 0.27	Vert(LL) -0.03 16 >999 480 MT20 244/190	
TCDL	10.0	Lumber DOL 1.00	BC 0.36	Vert(CT) -0.05 16 >999 360	
BCLL	0.0	Rep Stress Incr NO	WB 0.27	Horz(CT) 0.01 14 n/a n/a	
BCDL	5.0	Code IRC2015/TPI2014	Matrix-S	Weight: 78 lb FT = 20%F, 11 <sup>th</sup>	%E

**BOT CHORD** 

LUMBER-BRACING-

TOP CHORD 2x4 SP No.1(flat) TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, BOT CHORD 2x4 SP No.1(flat) except end verticals.

**OTHERS** 2x4 SP No.3(flat) REACTIONS. All bearings 6-0-0 except (jt=length) 14=0-3-0.

2x4 SP No.3(flat)

Max Uplift All uplift 100 lb or less at joint(s) 20 Max Grav All reactions 250 lb or less at joint(s) 24, 23, 22, 21, 20 except 14=592(LC 4), 19=710(LC 1), 19=710(LC 1)

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

TOP CHORD 7-9=-1083/0, 9-10=-1453/0, 10-12=-1134/0

**BOT CHORD** 18-19=0/641, 17-18=0/1453, 16-17=0/1453, 15-16=0/1453, 14-15=0/705 **WEBS** 7-19=-805/0, 7-18=0/569, 12-14=-880/0, 12-15=0/559, 9-18=-530/0, 10-15=-451/0

**WEBS** 

- 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) Gable studs spaced at 1-4-0 oc.

(lb) -

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20.
- 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.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 246 lb down at 10-11-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) 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: 14-24=-10. 1-13=-100

Concentrated Loads (lb) Vert: 26=-166(F)



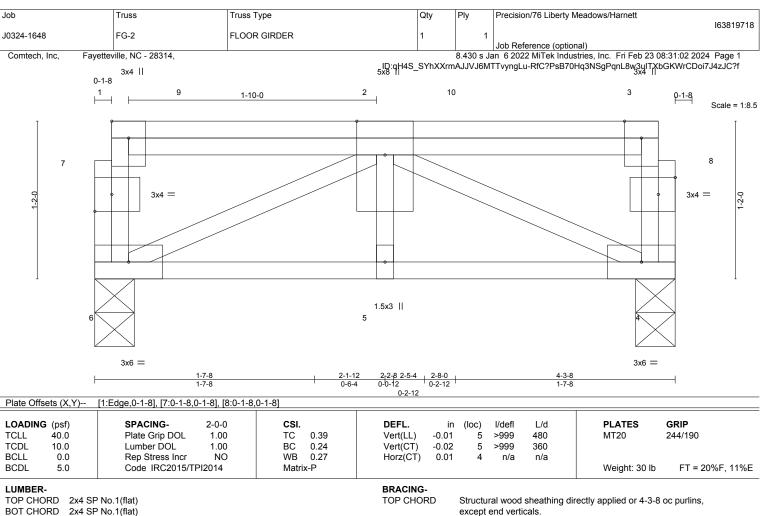
February 26,2024



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)





**BOT CHORD** 

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

BOT CHORD 2x4 SP No.1(flat)

**WEBS** 2x4 SP No.3(flat) REACTIONS. (size) 6=0-3-8, 4=0-3-8

Max Grav 6=922(LC 1), 4=692(LC 1)

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

TOP CHORD 1-6=-429/0

**BOT CHORD** 5-6=0/1018, 4-5=0/1018 2-4=-1118/0, 2-6=-1103/0 WEBS

### NOTES-

- 1) Plates checked for a plus or minus 1 degree rotation about its center.
- 2) 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.
- 3) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 601 lb down at 0-9-4, and 581 lb down at 2-9-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 4) 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: 4-6=-10, 1-3=-100

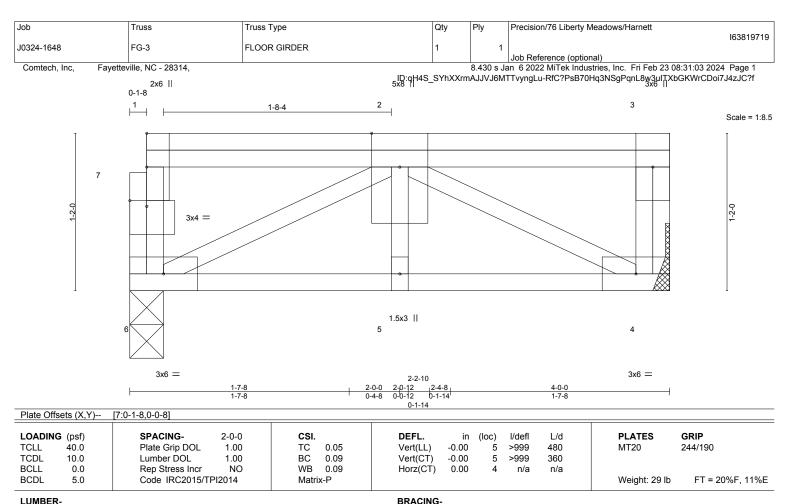
Concentrated Loads (lb)

Vert: 9=-601(B) 10=-581(B)



February 26,2024





TOP CHORD

**BOT CHORD** 

LUMBER-

2x4 SP No.1(flat) TOP CHORD 2x4 SP No.1(flat)

BOT CHORD **WEBS** 2x4 SP No.3(flat)

REACTIONS. (size) 6=0-3-0, 4=Mechanical Max Grav 6=260(LC 1), 4=266(LC 1)

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

BOT CHORD 5-6=0/338, 4-5=0/338

**WEBS** 2-4=-381/0, 2-6=-376/0

### NOTES-

- 1) Plates checked for a plus or minus 1 degree rotation about its center.
- 2) Refer to girder(s) for truss to truss connections
- 3) 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.
- 4) CAUTION, Do not erect truss backwards.
- 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 120 lb down at 2-1-12 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: 4-6=-10, 1-3=-100

Concentrated Loads (lb) Vert: 2=-120(F)



Structural wood sheathing directly applied or 4-0-0 oc purlins,

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

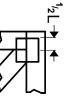
except end verticals.

February 26,2024

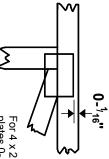


## Symbols

## PLATE LOCATION AND ORIENTATION



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



edge of truss. plates 0- 1/16" from outside For 4 x 2 orientation, locate

connector plates required direction of slots in This symbol indicates the

\* Plate location details available in MiTek software or upon request

### **PLATE SIZE**

4 × 4

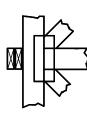
to slots. Second dimension is the length parallel to slots. width measured perpendicular The first dimension is the plate

## LATERAL BRACING LOCATION



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

### **BEARING**



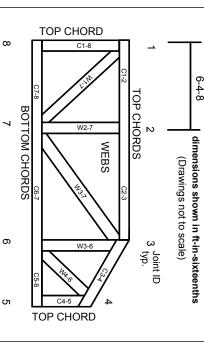
Min size shown is for crushing only number/letter where bearings occur reaction section indicates joint (supports) occur. Icons vary but Indicates location where bearings

### Industry Standards:

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

DSB-22:

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

# Design General Notes

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

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

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## MiTek



MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

# General Safety Notes

## Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Ņ 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.
- ယ Never exceed the design loading shown and never stack materials on inadequately braced trusses
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other

5

- 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.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

œ

- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the camber for dead load deflection responsibility of truss fabricator. General practice is to
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- 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
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use environmental, health or performance risks. Consult with
- 19. Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- 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



3/22/2024 Input by: Neal Baggett

Job Name: 76 LIBERTY MEADOWS

Page 1 of 6

Const 0 0

Ld. Comb.

D+0.75(L+S)

D+0.75(L+S)

Project #:

1.750" X 9.250" **Kerto-S LVL** 2-Ply - PASSED BM<sub>2</sub>

Level: Level

Reactions UNPATTERNED Ib (Uplift)

Dir.

Vert

Vert

Cap. React D/L lb

45% 2477 / 2108

45%

2477 / 2108

Total Ld. Case

4585 L

4585 L

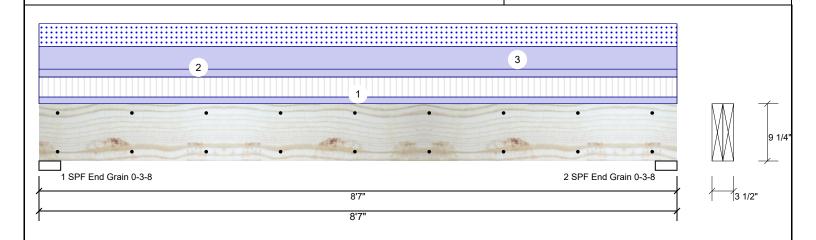
Bearing Length

1-SPF 3.500"

2 - SPF 3.500"

End Grain

End Grain



							• •		
Type:	Girder	Application:	Floor	Brg	Direction	Live	Dead	Snow	Wind
Plies:	2	Design Method:	ASD	1	Vertical	1318	2477	1494	0
Moisture Condition	: Dry	Building Code:	IBC 2012	2	Vertical	1318	2477	1494	0
Deflection LL:	480	Load Sharing:	No						
Deflection TL:	360	Deck:	Not Checked						
Importance:	Normal - II								
Temperature:	Temp <= 100°F			<u> </u>					
·	·			Bea	rings				

### **Analysis Results**

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8817 ft-lb	4'3 1/2"	14423 ft-lb	0.611 (61%)	D+0.75(L+S)	L
Unbraced	8817 ft-lb	4'3 1/2"	14423 ft-lb	0.611 (61%)	D+0.75(L+S)	L
Shear	3456 lb	7'6 1/4"	7943 lb	0.435 (44%)	D+0.75(L+S)	L
LL Defl inch	0.119 (L/821)	4'3 9/16"	0.203 (L/480)	0.585 (58%)	0.75(L+S)	L
TL Defl inch	0.258 (L/377)	4'3 9/16"	0.271 (L/360)	0.954 (95%)	D+0.75(L+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 continuously laterally braced.
- 7 Bottom must be laterally braced at 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			Тор	102 PLF	307 PLF	0 PLF	0 PLF	0 PLF	F3
2	Uniform			Тор	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
3	Uniform			Тор	348 PLF	0 PLF	348 PLF	0 PLF	0 PLF	B2
	Self Weight				7 PLF					

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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- LVL beams must not be cut or drilled
  Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals

  2 Damaged Beams must not be used

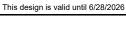
- Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation
- 6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 6/28/2026

Manufacturer Info

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

Client: Date: 3/22/2024 Page 2 of 6 Project: Input by: Neal Baggett isDesign Address: Job Name: 76 LIBERTY MEADOWS Project #: 1.750" X 9.250" 2-Ply - PASSED Level: Level **Kerto-S LVL** BM<sub>2</sub> 2 SPF End Grain 0-3-8 1 SPF End Grain 0-3-8 8'7' 8'7 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 PLF 163.7 PLF Yield Limit per Foot Yield Limit per Fastener 81.9 lb. См Yield Mode IV Edge Distance 1 1/2" Min. End Distance 3" Load Combination **Duration Factor** 1.00



For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

(800) 622-5850 www.metsawood.com/us

Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851

Handling & Installation

L. UV. beams must not be cut or drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
 Damaged Beams must not be used

Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation

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.

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

Notes





3/22/2024

Input by: Neal Baggett Job Name: 76 LIBERTY MEADOWS Page 3 of 6

Project #:

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

Level: Level

Reactions UNPATTERNED Ib (Uplift)

Dir.

Vert

Vert

Cap. React D/L lb

1154 / 1078

1154 / 1078

Total Ld. Case

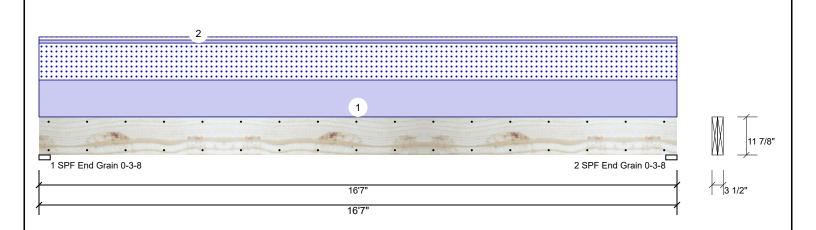
2232 L

2232 L

Ld. Comb.

D+S

D+S



Type:	Girder	Application:	Floor	Brg	Direction	Live	Dead	Snow	Wind	Const
Plies:	2	Design Method:	ASD	1	Vertical	0	1154	1078	0	0
Moisture Condition	n: Dry	Building Code:	IBC 2012	2	Vertical	0	1154	1078	0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal - II									
Temperature:	Temp <= 100°F									

**Bearings** Bearing Length

End Grain

End Grain

1-SPF 3.500"

2 - SPF 3.500"

### **Analysis Results**

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8751 ft-lb	8'3 1/2"	22897 ft-lb	0.382 (38%)	D+S	L
Unbraced	8751 ft-lb	8'3 1/2"	8756 ft-lb	0.999 (100%)	D+S	L
Shear	1897 lb	15'3 5/8"	10197 lb	0.186 (19%)	D+S	L
LL Defl inch	0.214 (L/904)	8'3 9/16"	0.538 (L/360)	0.398 (40%)	S	L
TL Defl inch	0.444 (L/436)	8'3 9/16"	0.806 (L/240)	0.550 (55%)	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 10'10 3/8" o.c.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

		3 1 7									
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments	
1	Uniform			Тор	120 PLF	0 PLF	120 PLF	0 PLF	0 PLF	C1-GE	
2	Tie-In	0-0-0 to 16-7-0	0-6-0	Тор	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	RAKE OH	
	Self Weight				9 PI F						

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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- LVL beams must not be cut or drilled
  Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals

  2 Damaged Beams must not be used

- Design assumes top edge is laterally restrained
  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 6/28/2026

Manufacturer Info Metsä Wood Norwalk, CT 06851 (800) 622-5850

301 Merritt 7 Building, 2nd Floor www.metsawood.com/us



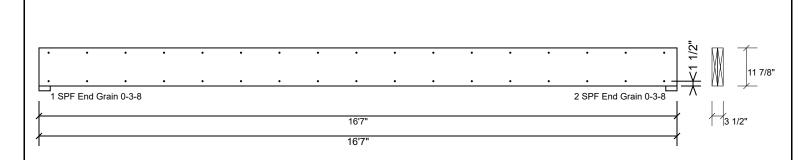
3/22/2024 Input by:

Neal Baggett Job Name: 76 LIBERTY MEADOWS Page 4 of 6

Project #:

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

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.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination		
Duration Factor	1.00	

### Notes

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.

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

### Handling & Installation

Handling & Installation

1. UVI 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

For flat roofs provide proper drainage to prevent ponding

This design is valid until 6/28/2026

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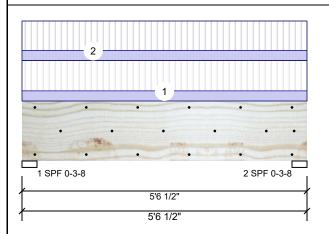
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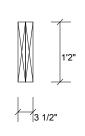
Job Name: 76 LIBERTY MEADOWS

Project #:

1.750" X 14.000" 2-Ply - PASSED **Kerto-S LVL** BM<sub>1</sub>

Level: Level





Page 5 of 6

### **Member Information**

Type: Plies: 2 Moisture Condition: Dry Deflection LL: 480 Deflection TL: 360 Importance:

Normal - II Temperature: Temp <= 100°F

### Application: Design Method: ASD

**Building Code:** IBC 2012 Load Sharing: No

Deck: Not Checked

### Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1721	604	0	0	0
2	Vertical	1721	604	0	0	0

### **Bearings**

Bearing	Length	Dir.	Cap. I	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	45%	604 / 1721	2324	L	D+L
2 - SPF	3.500"	Vert	45%	604 / 1721	2324	L	D+L

### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2710 ft-lb	2'9 1/4"	26999 ft-lb	0.100 (10%)	D+L	L
Unbraced	2710 ft-lb	2'9 1/4"	18950 ft-lb	0.143 (14%)	D+L	L
Shear	2080 lb	1'5 1/2"	10453 lb	0.199 (20%)	D+L	L
LL Defl inch	0.011 (L/5785)	2'9 1/4"	0.127 (L/480)	0.083 (8%)	L	L
TL Defl inch	0.014 (L/4282)	2'9 1/4"	0.169 (L/360)	0.084 (8%)	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 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			Near Face	105 PLF	315 PLF	0 PLF	0 PLF	0 PLF	F4	
2	Uniform			Far Face	102 PLF	306 PLF	0 PLF	0 PLF	0 PLF	F5	
	Self Weight				11 PLF						

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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals Damaged Beams must not be used
- Design assumes top edge is laterally restrained
  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 6/28/2026

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Date: 3/22/2024 Input by: Neal Baggett

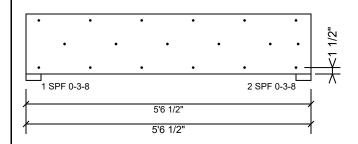
Job Name: 76 LIBERTY MEADOWS

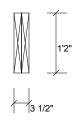
Project #:

**Kerto-S LVL BM1** 

1.750" X 14.000" 2-Ply - PASSED

Level: Level





Page 6 of 6

### 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".

l asteri ali piles usirig 5 10	ws of 100 box flatis (.120x3 ) at
Capacity	85.5 %
Load	210.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
См	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1 00

### Notes

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.

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

### Handling & Installation

- Handling & Installation

  1. UVI 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 6/28/2026

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

Manufacturer Info