

Trenco 818 Soundside Rd Edenton, NC 27932

Re: J0923-5391

Onsite\Lot 1 Lemuel Black Minor

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: I62450309 thru I62450333

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844



December 11,2023

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
 Ply
 Onsite\Lot 1 Lemuel Black Minor

 J0923-5391
 A1
 Roof Special
 1
 1
 1

 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Job Reference (optional)

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:14 2023 Page 1
ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f

29-0-0

Rigid ceiling directly applied or 6-0-0 oc bracing.

Brace must cover 90% of web length.

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

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.

2x4 SPF No.2 - 9-27, 8-28, 10-26

Scale = 1:67.6

13-7-11 15-3-2110981 17 R60TF/gg VAlyq8tk-RtC /PSB70Hq3nSgPqnL8w3u117.0
13-7-11 29-0-0 29-10<sub>1</sub>8
13-7-11 15-4-5 0-10-8

22-8-0

except end verticals.

4x4 = 8.00 12 10 11 12 <sup>4x6</sup> ≈ 13 5 14 15 16 22 21 20 31 4x6 = 4x4 > 35 30 29 27 26 25 24 23 19 3x10 // 4.00 12 3x4 =3x4 =

5-9-12 5-4-4 5-10-8 5-7-8 6-4-0 Plate Offsets (X,Y)--[13:0-3-0,Edge], [17:0-3-11,0-9-1], [17:0-0-12,0-1-12], [21:0-3-0,0-0-0], [25:0-2-0,0-0-11], [29:0-2-0,0-0-11], [32:0-2-8,0-0-0] LOADING (psf) SPACING-CSI (loc) I/def L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.15 TC 0.08 Vert(LL) 0.00 17 120 244/190 n/r MT20 TCDL 10.0 Lumber DOL 1.15 ВС 0.07 Vert(CT) 0.00 18 n/r 120 **BCLL** 0.0 Rep Stress Incr YES WB 0.25 Horz(CT) 0.01 17 n/a n/a Code IRC2015/TPI2014 **BCDL** 10.0 Weight: 223 lb FT = 20%Matrix-S

BRACING-

TOP CHORD

**BOT CHORD** 

**WEBS** 

16-9-8

LUMBER-

TOP CHORD 2x4 SP No.1 \*Except\*

13-18: 2x6 SP No.1 BOT CHORD 2x4 SP No.1 \*Except\*

17-21: 2x6 SP No.1 WEBS 2x4 SP No.2 OTHERS 2x4 SP No.2

OTHERS 2x4 SF WEDGE

Right: 2x4 SP No.2

**REACTIONS.** All bearings 29-0-0.

(lb) - Max Horz 35=-318(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 29, 25, 17, 27, 28, 31, 33, 26, 24,

23, 22, 20 except 35=-137(LC 8), 32=-195(LC 9), 21=-134(LC 11), 30=-102(LC 42), 24, 459(LC 42), 40, 404(LC 42)

11-2-0

12), 34=-158(LC 12), 19=-184(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 35, 29, 25, 21, 17, 28, 30, 31,

33, 34, 26, 24, 23, 22, 20 except 32=305(LC 19), 27=414(LC 12), 19=321(LC 20)

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

TOP CHORD 6-7=-233/273, 7-8=-297/350, 8-9=-347/413, 9-10=-347/427, 10-11=-297/398,

11-12=-233/350, 12-14=-230/315, 14-15=-248/271, 15-16=-269/271, 16-17=-340/337 BOT CHORD 34-35=-293/319, 33-34=-284/312, 32-33=-289/313, 31-32=-287/310, 30-31=-287/311,

29-30=-284/311, 28-29=-267/291, 27-28=-267/291, 26-27=-267/291, 25-26=-267/291,

24-25=-282/310, 23-24=-287/311, 22-23=-288/310, 21-22=-285/307, 20-21=-276/300,

19-20=-292/310, 17-19=-286/312

WEBS 9-27=-389/248

### NOTES

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

- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-1-12 to 4-6-9, Exterior(2) 4-6-9 to 13-7-11, Corner(3) 13-7-11 to 18-0-8, Exterior(2) 18-0-8 to 29-8-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 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 40.0psf 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.

### 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

Design Valid for use only with will refer 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 abrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road Edenton, NC 27932

SEAL 036322

December 11,2023

Job	Truss	Truss Type	Qty	Ply	Onsite\Lot 1 Lemuel Black Minor
	1				I62450309
J0923-5391	A1	Roof Special	1	1	
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:14 2023 Page 2 ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

### NOTES-

- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 25, 17, 27, 28, 31, 33, 26, 24, 23, 22, 20 except (jt=lb) 35=137, 32=195, 21=134, 30=102, 34=158, 19=184.

  10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 32, 21, 30, 31, 33, 34, 24, 23, 22, 20, 19.

  11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



818 Soundside Road Edenton, NC 27932

Job Truss Truss Type Qty Onsite\Lot 1 Lemuel Black Minor 162450310 J0923-5391 A2 Roof Special 5 Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:15 2023 Page 1 Fayetteville, NC - 28314, Comtech, Inc. ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 21-2-1 29-0-0 6-11-9 6-8-1 7-6-7 7-9-15 0-10-8 Scale = 1:66.5 4x6 || 8.00 12 3 5x8 / 4x6 <> 3x4 5 3x10 19 1-11-12 5x5 = 8x12 = 2x4 = 10 20 21 2x4 = 4x4 = 12 5x5 = 5x5 = 3x10 // 2x4 || 4.00 12 22-8-0 11-2-0 16-7-12 5-9-12 5-4-4 5-5-12 Plate Offsets (X,Y)--[2:0-4-0,0-3-0], [4:0-3-0,Edge], [6:0-3-11,0-9-1], [6:0-0-12,0-1-12], [11:0-6-0,0-2-0] LOADING (psf) SPACING-CSI in (loc) I/defl L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.15 TC 0.45 Vert(LL) -0.12 9-10 >999 360 244/190 MT20 TCDL 10.0 Lumber DOL 1.15 ВС 0.47 Vert(CT) -0.16 9-10 >999 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.70 Horz(CT) 0.03 6 n/a n/a Code IRC2015/TPI2014 **BCDL** 10.0 Wind(LL) 240 Weight: 198 lb FT = 20%Matrix-S 0.02 11 >999

**BRACING-**

TOP CHORD

**BOT CHORD** 

**WEBS** 

LUMBER-

2x4 SP No.1 \*Except\* TOP CHORD

4-7: 2x6 SP No.1 2x4 SP No.1 \*Except\*

**BOT CHORD** 6-8: 2x6 SP No.1

WEBS 2x4 SP No.2

WEDGE

Right: 2x4 SP No.2

REACTIONS. 12=0-5-8, 9=0-3-8, 6=0-5-8 (size)

Max Horz 12=-257(LC 8)

Max Uplift 12=-36(LC 12), 9=-38(LC 12), 6=-62(LC 13) Max Grav 12=569(LC 23), 9=1488(LC 19), 6=388(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-771/137, 2-3=-349/251, 3-5=0/414, 5-6=-425/39, 1-12=-559/157

**BOT CHORD** 11-12=-247/319, 10-11=-195/675, 6-8=0/294

WFBS 2-11=-67/405, 2-10=-693/217, 3-10=-128/609, 3-9=-1008/90, 5-9=-647/268, 5-8=0/311,

1-11=0/476

### 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 13-7-11, Exterior(2) 13-7-11 to 18-0-8, Interior(1) 18-0-8 to 29-8-15 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 40.0psf 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) Bearing at joint(s) 12, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 9, 6.



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

3-9

Rigid ceiling directly applied or 6-0-0 oc bracing.

except end verticals.

1 Row at midpt

December 11,2023

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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 Onsite\Lot 1 Lemuel Black Minor 162450311 J0923-5391 **A3** Roof Special Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:16 2023 Page 1 Comtech, Inc. ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 21-2-1 29-0-0 6-11-9 6-8-1 7-6-7 7-9-15 Scale = 1:67.0 4x6 || 8.00 12 16 5x8 / 4x6 <> 3x4 >> 5 18 3x10 / 1-11-12 0-110-0 5x5 = 8x12 = 2x4 = 19 20 9 2x4 = 3x4 11 2x4 || 5x5 = 3x10 // 4.00 12 11-2-0 16-7-12 29-0-0 5-9-12 5-4-4 5-5-12 5-10-8 Plate Offsets (X,Y)--[2:0-4-0,0-3-0], [4:0-3-0,Edge], [6:0-3-11,0-9-1], [6:0-0-9,0-1-4], [10:0-6-0,0-2-0] LOADING (psf) SPACING-2-0-0 CSI DEFL. in (loc) I/def L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.15 TC 0.45 Vert(LL) -0.12 8-9 >999 360 244/190 MT20 TCDL 10.0 Lumber DOL 1.15 BC 0.47 Vert(CT) -0.16 8-9 >999 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.71 Horz(CT) 0.03 6 n/a n/a Code IRC2015/TPI2014 **BCDL** 10.0 Wind(LL) 240 Weight: 196 lb FT = 20%Matrix-S 0.02 10 >999

**BRACING-**

TOP CHORD

**BOT CHORD** 

**WEBS** 

LUMBER-

2x4 SP No.1 \*Except\* TOP CHORD

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

6-7: 2x6 SP No.1 WEBS 2x4 SP No.2

WEDGE

Right: 2x4 SP No.2

REACTIONS. (size) 11=0-5-8, 8=0-3-8, 6=0-5-8

Max Horz 11=-255(LC 8)

Max Uplift 11=-36(LC 12), 8=-39(LC 12), 6=-46(LC 13) Max Grav 11=569(LC 23), 8=1490(LC 19), 6=326(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-770/136, 2-3=-346/249, 3-5=0/416, 5-6=-396/36, 1-11=-558/157

**BOT CHORD** 10-11=-247/317, 9-10=-197/672, 6-7=0/294

WFBS 2-10=-68/404, 2-9=-692/218, 3-9=-129/609, 3-8=-1008/96, 5-8=-646/271, 5-7=0/314,

1-10=0/474

### 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 13-7-11, Exterior(2) 13-7-11 to 18-0-8, Interior(1) 18-0-8 to 28-9-4 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 40.0psf 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) Bearing at joint(s) 11, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 8, 6.
- 7) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



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

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.

2x4 SPF No.2 - 3-8

Rigid ceiling directly applied or 6-0-0 oc bracing.

Brace must cover 90% of web length.

except end verticals.

T-Brace:

December 11,2023



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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 Onsite\Lot 1 Lemuel Black Minor 162450312 J0923-5391 A4 Roof Special 2 Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:18 2023 Page 1 Fayetteville, NC - 28314, Comtech, Inc. ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 29-10-8 0-10-8 21-2-1 29-0-0 6-11-9 6-8-1 7-6-7 7-9-15 Scale = 1:65.6 6x8 || 8.00 12 3x4 / 18 4x6 / 4x6 ≫ 3 5 2x4 2 6

> 5-9-12 29-0-0 5-9-12 7-9-15

4x6 =

10

5x8 =

21 22

4x4 =

4x4 =

TOP CHORD

**BOT CHORD** 

9 <sup>23</sup>

5x8 =

except end verticals.

Structural wood sheathing directly applied or 4-10-10 oc purlins,

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

11

8x8 =

20

Plate Offsets (X,Y)	[3:0-3-0,Edge], [7:0-6-0,0-0-1], [9:0-3-4	,0-2-4]						
LOADING (psf)	SPACING- 2-1-8	CSI.	DEFL. i	n (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.29	Vert(LL) -0.10	( /	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.50	Vert(CT) -0.19	9-11	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.89	Horz(CT) 0.06	5 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04	7-9	>999	240	Weight: 248 lb	FT = 20%

LUMBER-BRACING-

6x8 II 2x4 =

2x4 =

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

4.00 12

2x4 SP No.2 \*Except\* 9-11: 2x6 SP No.1

4x6 /

13

2x4 =

(size) 13=0-5-8, 7=0-5-8 Max Horz 13=-270(LC 8)

Max Grav 13=1409(LC 19), 7=1586(LC 20)

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

TOP CHORD 1-2=-2432/163, 2-4=-1595/267, 4-6=-2342/401, 6-7=-2333/151, 1-13=-1424/173

**BOT CHORD** 12-13=-251/338, 11-12=0/1984, 9-11=0/1167, 7-9=0/1798

WFBS 2-12=0/807, 2-11=-965/237, 4-11=0/758, 6-9=-557/382, 1-12=0/1829, 4-9=-217/1366

### 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) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 13-7-11, Exterior(2) 13-7-11 to 18-0-8, Interior(1) 18-0-8 to 29-8-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 200.0lb AC unit load placed on the bottom chord, 15-0-0 from left end, supported at two points, 5-0-0 apart.
- 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 40.0psf 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) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.





Job Truss Truss Type Qty Onsite\Lot 1 Lemuel Black Minor 162450313 J0923-5391 **A5** Common Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:19 2023 Page 1 Comtech, Inc, Fayetteville, NC - 28314, ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 29-5-0 0-10-8 20-8-9 7-6-7 7-6-7 7-9-15 Scale: 3/16"=1 4x6 || 8.00 12 4x6 > 4x6 // 5 2x4 // 3 2x4 || 2-3-7 18 19 11 20 21 22 9 23 24 10 4x4 = 13 5x8 =4x4 =4x6 = 4x4 | 15x8 =4x8 = 18-2-3 28-6-8 5-0-0 Plate Offsets (X,Y)--[5:0-3-0,Edge], [7:0-0-0,0-0-3], [9:0-3-8,0-2-4], [11:0-4-0,0-2-4] **GRIP** LOADING (psf) SPACING-2-0-0 DEFL. in (loc) I/def L/d **PLATES** TCLL 20.0 Plate Grip DOL 1.15 TC 0.81 Vert(LL) -0.09 7-9 >999 360 244/190 MT20 TCDL 10.0 Lumber DOL 1.15 ВС 0.64 Vert(CT) -0.17 7-9 >999 240 **BCLL** 0.0 Rep Stress Incr NO WB 0.56 Horz(CT) 0.03 n/a n/a Code IRC2015/TPI2014 **BCDL** 10.0 Wind(LL) 7-9 >999 240 Weight: 217 lb FT = 20%Matrix-S 0.03 BRACING-TOP CHORD 2x4 SP No.1 \*Except\* TOP CHORD Structural wood sheathing directly applied, except end verticals. **BOT CHORD** 5-8: 2x6 SP No.1 Rigid ceiling directly applied or 10-0-0 oc bracing. **BOT CHORD** 2x6 SP No.1 **WEBS** 2x4 SPF No.2 - 2-12 Fasten (2X) T and I braces to narrow edge of web with 10d

LUMBER-

WEBS 2x4 SP No.2 \*Except\* 9-11: 2x6 SP No.1

REACTIONS. (size) 12=Mechanical, 7=0-5-8

Max Horz 12=-256(LC 8)

Max Grav 12=1473(LC 19), 7=1504(LC 20)

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

TOP CHORD 2-4=-1671/243, 4-6=-1957/266, 6-7=-2091/173 BOT CHORD 11-12=0/1419. 9-11=0/1110. 7-9=-25/1620

**WEBS** 2-11=-161/266, 4-11=-10/675, 4-9=-67/1175, 6-9=-482/323, 2-12=-1709/61

- 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) 0-3-4 to 4-8-1, Interior(1) 4-8-1 to 13-2-3, Exterior(2) 13-2-3 to 17-7-0, Interior(1) 17-7-0 to 29-3-7 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 200.0lb AC unit load placed on the bottom chord, 13-0-0 from left end, supported at two points, 5-0-0 apart.
- 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 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

### LOAD CASE(S) Standard

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

Vert: 1-4=-60, 4-8=-60, 7-13=-20 Concentrated Loads (lb)

Vert: 20=-100 21=-100

SEAL

(0.131"x3") nails, 6in o.c., with 3in minimum end distance.

Brace must cover 90% of web length.

December 11,2023



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)



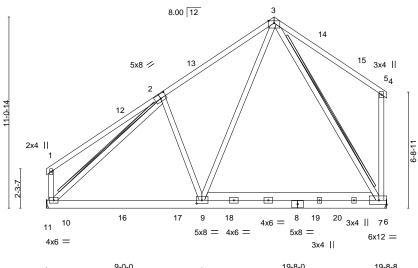
Job Truss Truss Type Qty Onsite\Lot 1 Lemuel Black Minor 162450314 J0923-5391 A6 COMMON 3 Job Reference (optional) Comtech, Inc.

Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:20 2023 Page 1 ID: 3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?ff

6-8-13 6-5-5 6-5-13

> 5x8 = Scale = 1:66.7



9-0-0 19-8-0 19-8-8 0-0-8 Plate Offsets (X V)-- [2:0-4-0 0-3-0] [9:0-3-12 0-2-4]

Tiale Offsets (A, I)	[2.0-4-0,0-3-0], [3.0-3-12,0-2-4]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP	
TCLL 20.0	Plate Grip DOL 1.15	TC 0.42	Vert(LL) -0.08 7-9 >999 360 MT20 244/190	
TCDL 10.0	Lumber DOL 1.15	BC 0.50	Vert(CT) -0.14 7-9 >999 240	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.72	Horz(CT) 0.01 7 n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.01 9 >999 240 Weight: 173 lb FT = 20%	

LUMBER-

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

2x4 SP No.2 \*Except\* 7-9: 2x6 SP No.1

BRACING-

TOP CHORD

**BOT CHORD WEBS** 

Structural wood sheathing directly applied or 5-9-8 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

2x4 SPF No.2 - 2-10, 3-7 T-Brace: 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. (size) 10=Mechanical, 7=Mechanical

Max Horz 10=198(LC 9)

Max Grav 10=1032(LC 19), 7=1197(LC 19)

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

TOP CHORD 2-3=-1053/168, 4-7=-258/186 **BOT CHORD** 9-10=-129/933, 7-9=-23/467

2-9=-319/285, 3-9=0/1032, 2-10=-1026/0, 3-7=-874/23 **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) 0-3-4 to 4-8-1, Interior(1) 4-8-1 to 13-2-3, Exterior(2) 13-2-3 to 17-7-0, Interior(1) 17-7-0 to 19-8-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 200.0lb AC unit load placed on the bottom chord, 13-0-0 from left end, supported at two points, 5-0-0 apart.
- 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 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



December 11,2023

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/TPI1 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 Onsite\Lot 1 Lemuel Black Minor 162450315 J0923-5391 A7 COMMON 5 Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:21 2023 Page 1 ID: 3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?ff

6-8-13 6-8-13 6-5-5 6-5-13

> Scale = 1:65.5 5x8 =

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

2-10, 3-7

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

except end verticals.

1 Row at midpt

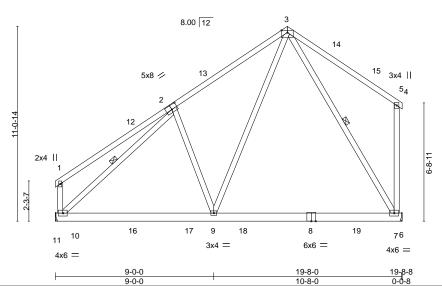


Plate Off	sets (X,Y)	[2:0-4-0,0-3-0]									
LOADIN	G (psf)	SPACING- 2-0-	o cs	l.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL 1.1	5 TC	0.42	Vert(LL)	-0.28	7-9	>814	360	MT20	244/190
TCDL	10.0	Lumber DOL 1.1	5 BC	0.66	Vert(CT)	-0.36	7-9	>632	240		
BCLL	0.0 *	Rep Stress Incr YE	S WE	0.53	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014	Ma	trix-S	Wind(LL)	0.01	9	>999	240	Weight: 150 lb	FT = 20%

BRACING-

TOP CHORD

**BOT CHORD** 

**WEBS** 

LUMBER-

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

REACTIONS. (size) 10=Mechanical, 7=Mechanical

Max Horz 10=198(LC 9)

Max Uplift 10=-13(LC 12), 7=-71(LC 12) Max Grav 10=965(LC 19), 7=1075(LC 19)

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

2-3=-960/265, 4-7=-258/185 TOP CHORD **BOT CHORD** 9-10=-195/850, 7-9=-59/430

WFBS 2-9=-345/267, 3-9=-112/918, 2-10=-947/37, 3-7=-795/96

### 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) 0-3-4 to 4-8-1, Interior(1) 4-8-1 to 13-2-3, Exterior(2) 13-2-3 to 17-7-0, Interior(1) 17-7-0 to 19-8-8 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 40.0psf 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7.



December 11,2023



Job Truss Truss Type Qty Onsite\Lot 1 Lemuel Black Minor 162450316 J0923-5391 **A8 GABLE** Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:22 2023 Page 1 ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

13-2-3 6-5-13

Scale = 1:65.5

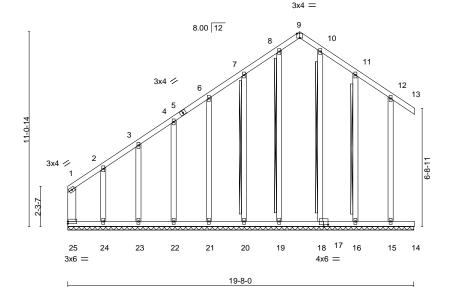


Plate Offsets (X,Y)--[9:0-2-0,Edge], [17:0-3-0,0-1-4] LOADING (psf) SPACING-CSI DEFL. in (loc) I/defI L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.15 TC 0.34 Vert(LL) -0.01 120 244/190 13 n/r MT20 TCDL 10.0 Lumber DOL 1.15 BC 0.41 Vert(CT) -0.01 12-13 n/r 120 **BCLL** 0.0 Rep Stress Incr YES WB 0.16 0.00 Horz(CT) n/a n/a Code IRC2015/TPI2014 **BCDL** 10.0 Weight: 164 lb FT = 20%Matrix-S

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

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

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 - 8-19, 7-20, 10-18, 11-16

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 19-8-0.

Max Horz 25=295(LC 12) (lb)

> Max Uplift All uplift 100 lb or less at joint(s) 19, 21, 23, 15 except 25=-401(LC 10), 20=-111(LC 12), 22=-116(LC 12), 24=-618(LC 12), 16=-115(LC 13) Max Grav All reactions 250 lb or less at joint(s) 20, 21, 22, 23, 16, 15 except

25=599(LC 12), 19=308(LC 19), 24=508(LC 10), 18=261(LC 22)

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

TOP CHORD 1-25=-352/247, 1-2=-441/333

WEBS 2-24=-325/350

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-2-12 to 4-7-9, Exterior(2) 4-7-9 to 13-2-3, Corner(3) 13-2-3 to 17-7-0, Exterior(2) 17-7-0 to 19-8-8 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 40.0psf 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) 19, 21, 23, 15 except (jt=lb) 25=401, 20=111, 22=116, 24=618, 16=115. 10) N/A
- 11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



December 11,2023



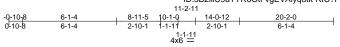
Job	Truss	Truss Type	Qty	Ply	Onsite\Lot 1 Lemuel Black Minor
					I62450317
J0923-5391	B1	ATTIC	1	1	
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

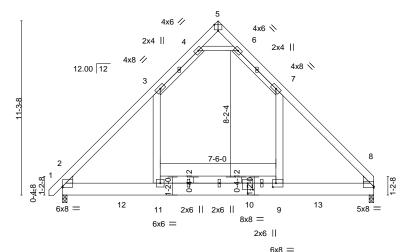
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:23 2023 Page 1 ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Structural wood sheathing directly applied or 2-2-0 oc purlins.

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



Scale = 1:74.7



20-2-0 6-1-4 7-11-8

BRACING-

TOP CHORD

**BOT CHORD** 

Plate Off	Sets (X,Y)	[2:0-0-0,0-0-12], [5:0-3-0,1	Eagej, [8:0-0-0	J,U-1-UJ, [9:U	-2-8,0-3-0], [	10:0-4-0,0-5-0]						
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	0.90	Vert(LL)	-0.15	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.27	9-11	>874	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TP	12014	Matri	x-S	Wind(LL)	0.12	9-11	>999	240	Weight: 215 lb	FT = 20%

LUMBER-

2x6 SP No.1 TOP CHORD BOT CHORD 2x10 SP No.1 WEBS 2x6 SP No.1 \*Except\*

4-6: 2x4 SP No.1, 3-4,6-7: 2x4 SP No.2

WEDGE

Left: 2x6 SP No.2, Right: 2x6 SP No.2

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

Max Horz 2=322(LC 9)

Max Grav 2=1362(LC 20), 8=1323(LC 20)

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

TOP CHORD  $2-3 = -1649/28, \ 3-4 = -838/167, \ 4-5 = -135/658, \ 5-6 = -128/652, \ 6-7 = -847/173, \ 7-8 = -1623/20$ 

**BOT CHORD** 2-11=0/977, 9-11=0/977, 8-9=0/977 **WEBS** 4-6=-1763/444, 3-11=-27/760, 7-9=-33/716

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-14 to 3-7-15, Exterior(2) 3-7-15 to 10-1-0, Corner(3) 10-1-0 to 14-5-13, Exterior(2) 14-5-13 to 20-0-4 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 40.0psf 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) Ceiling dead load (10.0 psf) on member(s). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s).3-11, 7-9
- 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 9-11
- 7) Attic room checked for L/360 deflection.



December 11,2023



Job Truss Truss Type Qty Ply Onsite\Lot 1 Lemuel Black Minor 162450318 ATTIC J0923-5391 B2 2 Job Reference (optional)

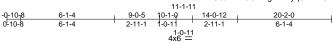
Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:24 2023 Page 1

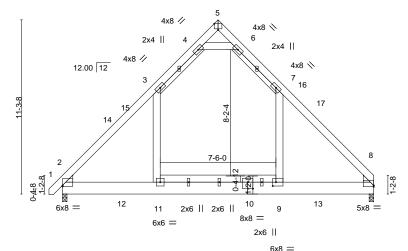
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Structural wood sheathing directly applied or 2-2-0 oc purlins.

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



Scale = 1:74.7



20-2-0 6-1-4 7-11-8

BRACING-

TOP CHORD

**BOT CHORD** 

Plate Offsets (X,Y)	[2:0-0-0,0-0-12], [5:0-3-0,Edge], [8:0-0	-0,0-1-0], [9:0-2-8,0-3-0], [10	10:0-4-0,0-5-0]	
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP	
TCLL 20.0	Plate Grip DOL 1.15	TC 0.93	Vert(LL) -0.16 9-11 >999 360 MT20 244/190	
TCDL 10.0	Lumber DOL 1.15	BC 0.48	Vert(CT) -0.28 9-11 >853 240	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT) 0.01 8 n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.09 9-11 >999 240 Weight: 217 lb FT = 20%	

LUMBER-

2x6 SP No.1 TOP CHORD BOT CHORD 2x10 SP No.1 WEBS 2x6 SP No.1 \*Except\* 3-4,6-7: 2x4 SP No.2

WEDGE

Left: 2x6 SP No.2, Right: 2x6 SP No.2

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

Max Horz 2=258(LC 9)

Max Grav 2=1367(LC 20), 8=1328(LC 20)

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

TOP CHORD 2-3=-1626/0, 3-4=-835/140, 4-5=-127/715, 5-6=-113/709, 6-7=-844/149, 7-8=-1600/0 **BOT CHORD** 2-11=0/950, 9-11=0/950, 8-9=0/950

**WEBS** 4-6=-1854/365, 3-11=0/753, 7-9=-0/714

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-14 to 3-7-15, Interior(1) 3-7-15 to 10-1-0, Exterior(2) 10-1-0 to 14-5-13, Interior(1) 14-5-13 to 20-0-4 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 40.0psf 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) Ceiling dead load (10.0 psf) on member(s). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s).3-11, 7-9
- 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 9-11
- 7) Attic room checked for L/360 deflection.



December 11,2023



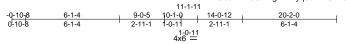
Job Truss Truss Type Qty Onsite\Lot 1 Lemuel Black Minor 162450319 J0923-5391 **B**3 **ATTIC** 2 Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

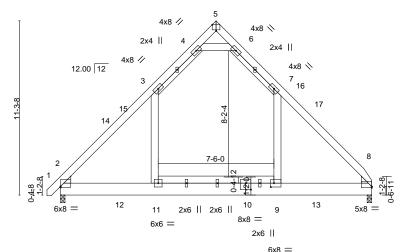
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:25 2023 Page 1 ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Structural wood sheathing directly applied or 2-2-0 oc purlins.

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



Scale = 1:74.7



20-2-0 6-1-4 7-11-8

BRACING-

TOP CHORD

**BOT CHORD** 

Plate Offsets	(X,Y)	[2:0-0-0,0-0-12], [5:0-3-0,E	<u>-agej, [8:0-0-0</u>	J,0-1-0 <u>], [</u> 9:0	-2-8,0-3-0 <u>],</u> [	10:0-4-0,0-5-0]						
LOADING (p	sf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20	0.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.16	9-11	>999	360	MT20	244/190
TCDL 10	0.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.28	9-11	>853	240		
BCLL (	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	8	n/a	n/a		
BCDL 10	0.0	Code IRC2015/TPI	12014	Matri	x-S	Wind(LL)	0.09	9-11	>999	240	Weight: 217 lb	FT = 20%

LUMBER-

2x6 SP No.1 TOP CHORD BOT CHORD 2x10 SP No.1 WEBS 2x6 SP No.1 \*Except\* 3-4,6-7: 2x4 SP No.2

WEDGE

Left: 2x6 SP No.2, Right: 2x6 SP No.2

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

Max Horz 2=258(LC 11)

Max Grav 2=1367(LC 20), 8=1328(LC 20)

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

2-3=-1626/0, 3-4=-835/140, 4-5=-127/715, 5-6=-113/709, 6-7=-844/149, 7-8=-1600/0 **BOT CHORD** 2-11=0/950, 9-11=0/950, 8-9=0/950

**WEBS** 4-6=-1854/365, 3-11=0/753, 7-9=-0/714

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-14 to 3-7-15, Interior(1) 3-7-15 to 10-1-0, Exterior(2) 10-1-0 to 14-5-13, Interior(1) 14-5-13 to 20-0-4 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 40.0psf 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) Ceiling dead load (10.0 psf) on member(s). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s).3-11, 7-9
- 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 9-11
- 7) Attic room checked for L/360 deflection.



December 11,2023



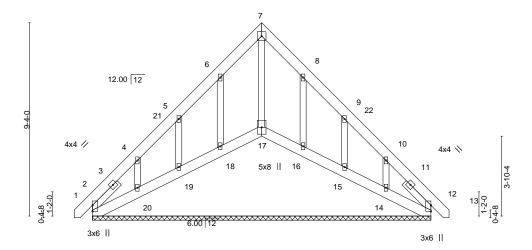
Job Truss Truss Type Qty Onsite\Lot 1 Lemuel Black Minor 162450320 J0923-5391 C<sub>1</sub> **GABLE** Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:26 2023 Page 1 ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

18-1-0 0-10-8 -0-10-8 0-10-8 17-2-8 8-2-0 8-2-0

> 5x5 = Scale = 1:55.6



	-0-10- <u>β</u> 0-10-8	9-0-8 8-2-0	17-2-8 8-2-0	18-1-0 0-10-8	
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014	CSI. TC 0.05 BC 0.04 WB 0.10 Matrix-S	DEFL.         in (loc)         l/           Vert(LL)         -0.00         12           Vert(CT)         -0.00         12           Horz(CT)         0.00         12	/defl L/d n/r 120 n/r 120 n/a n/a	PLATES GRIP MT20 244/190  Weight: 139 lb FT = 20%

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 10-0-0 oc bracing. 2x4 SP No.2

**OTHERS SLIDER** Left 2x4 SP No.2 1-10-3, Right 2x4 SP No.2 1-10-3

REACTIONS. All bearings 16-4-0.

(lb) -Max Horz 2=267(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 12 except 2=-223(LC 8), 17=-101(LC 11), 18=-124(LC 12),

19=-125(LC 12), 20=-279(LC 12), 16=-115(LC 13), 15=-131(LC 13), 14=-258(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 12, 18, 19, 16, 15, 14 except 2=307(LC 20), 17=488(LC 13),

20=253(LC 19)

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

TOP CHORD 2-4=-288/233. 6-7=-247/254 **WEBS** 7-17=-263/200, 4-20=-244/266

- 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) -0-8-14 to 3-7-15, Interior(1) 3-7-15 to 8-2-0, Exterior(2) 8-2-0 to 12-6-13, Interior(1) 12-6-13 to 17-0-14 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 40.0psf 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) 12 except (jt=lb) 2=223, 17=101, 18=124, 19=125, 20=279, 16=115, 15=131, 14=258.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 11,2023



Job Truss Truss Type Qty Ply Onsite\Lot 1 Lemuel Black Minor 162450321 J0923-5391 C2 **SCISSORS** Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:27 2023 Page 1

Fayetteville, NC - 28314, Comtech, Inc.

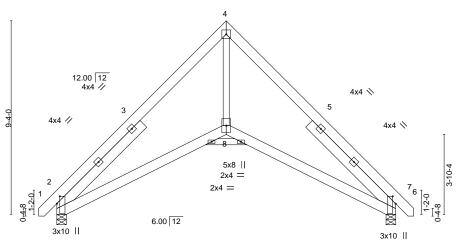
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-0-10-8 0-10-8 8-2-0 8-2-0 16-4-0 17-2-8 8-2-0

> Scale = 1:55.6 5x5 =

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

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



16-4-0

Plate Offsets (X,Y)	[2:0-4-4,0-1-11], [6:0-4-4,0-1-11]

TCDL 1	20.0 10.0	SPACING- Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15	CSI. TC BC	0.30 0.21	DEFL. Vert(LL) Vert(CT)	in -0.04 -0.08	(loc) 6-8 6-8	l/defl >999 >999	L/d 360 240	PLATES MT20	<b>GRIP</b> 244/190
	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.04	6	n/a	n/a		
BCDL 1	0.0	Code IRC2015/TP	PI2014	Matri	x-S	Wind(LL)	-0.03	8	>999	240	Weight: 141 lb	FT = 20%

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

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

SLIDER Left 2x6 SP No.1 5-10-1, Right 2x6 SP No.1 5-10-1

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

Max Horz 2=213(LC 11)

Max Uplift 2=-28(LC 12), 6=-28(LC 13) Max Grav 2=694(LC 1), 6=694(LC 1)

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

2-4=-971/78, 4-6=-996/76 TOP CHORD **BOT CHORD** 2-8=-50/744, 6-8=-38/734

**WEBS** 4-8=0/799

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-14 to 3-7-15, Interior(1) 3-7-15 to 8-2-0, Exterior(2) 8-2-0 to 12-6-13, Interior(1) 12-6-13 to 17-0-14 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 40.0psf 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) Bearing at joint(s) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 11,2023



Job Truss Truss Type Qty Ply Onsite\Lot 1 Lemuel Black Minor 162450322 J0923-5391 C3 Scissor Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:28 2023 Page 1 ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

16-4-0 8-2-0 8-2-0 8-2-0

> 5x5 = Scale = 1:55.5

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

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

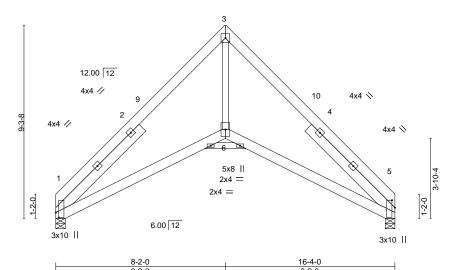


Plate Offsets (X,Y)-- [1:0-2-15,0-1-11], [5:0-4-4,0-1-11]

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 0.30	Vert(LL)	-0.04	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL 1.15	BC 0.21	Vert(CT)	-0.08	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr YES	WB 0.18	Horz(CT)	0.05	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL)	-0.03	6	>999	240	Weight: 136 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

**SLIDER** Left 2x6 SP No.1 5-10-1, Right 2x6 SP No.1 5-10-1

REACTIONS. (size) 1=0-5-8, 5=0-5-8 Max Horz 1=-213(LC 10)

Max Uplift 1=-26(LC 13), 5=-26(LC 12) Max Grav 1=637(LC 1), 5=637(LC 1)

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

1-3=-978/85, 3-5=-1002/78 TOP CHORD **BOT CHORD** 1-6=-51/749, 5-6=-39/740

WEBS 3-6=0/805

### 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) 0-2-7 to 4-7-4, Interior(1) 4-7-4 to 8-2-0, Exterior(2) 8-2-0 to 12-6-13, Interior(1) 12-6-13 to 16-1-9 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 40.0psf 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) Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.



December 11,2023



Job Truss Truss Type Qty Ply Onsite\Lot 1 Lemuel Black Minor 162450323 J0923-5391 C4 Common Girder Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:29 2023 Page 1

ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 8-2-0 8-2-0 8-2-0

> Scale = 1:56.5 5x8 ||

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

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

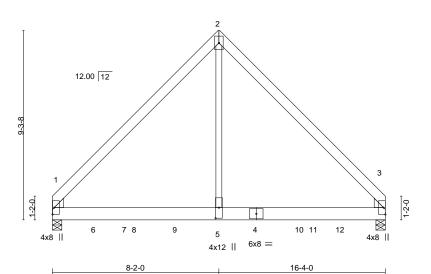


Plate Offsets (X,Y)--[5:0-6-4,0-2-0] LOADING (psf) SPACING-2-0-0 CSI. DEFL. in (loc) I/defl L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.15 TC 0.58 Vert(LL) -0.10 3-5 >999 360 244/190 MT20 TCDL 10.0 Lumber DOL 1.15 BC 0.75 Vert(CT) -0.18 3-5 >999 240 **BCLL** 0.0 Rep Stress Incr NO WB 0.66 Horz(CT) 0.01 3 n/a n/a Code IRC2015/TPI2014 FT = 20% **BCDL** 10.0 Wind(LL) 240 Weight: 241 lb Matrix-S 0.06 1-5 >999

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x6 SP No.1

BOT CHORD 2x8 SP 2400F 2.0E \*Except\*

3-4: 2x8 SP No.1

2x4 SP No.2 **WEBS** 

WEDGE

Left: 2x6 SP No.1, Right: 2x6 SP No.1

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

Max Horz 1=209(LC 5) Max Uplift 1=-149(LC 9)

Max Grav 1=4296(LC 2), 3=5493(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-4066/48, 2-3=-4058/61

**BOT CHORD** 1-5=0/2685, 3-5=0/2685

2-5=0/5383 **WEBS** 

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
  - Top chords connected as follows: 2x6 2 rows staggered at 0-9-0 oc.
  - Bottom chords connected as follows: 2x8 2 rows staggered at 0-9-0 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 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=149
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1002 lb down and 91 lb up at 2-0-12, 958 lb down and 91 lb up at 4-0-12, 942 lb down and 91 lb up at 6-0-12, 951 lb down and 91 lb up at 8-0-12, 942 lb down and 91 lb up at 10-0-12, 1074 lb down at 12-0-12, and 1124 lb down at 14-0-12, and 1134 lb down at 16-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



December 11,2023

### 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 Onsite\Lot 1 Lemuel Black Minor 162450323 C4 J0923-5391 Common Girder

Comtech, Inc, Fayetteville, NC - 28314, Job Reference (optional)

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:29 2023 Page 2
ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-2=-60, 2-3=-60, 1-3=-20

Concentrated Loads (lb)

Vert: 4=-770(B) 5=-770(B) 3=-913(B) 6=-770(B) 8=-770(B) 9=-770(B) 10=-903(B) 12=-903(B)



Job Truss Truss Type Qty Onsite\Lot 1 Lemuel Black Minor 162450324 J0923-5391 J1 **GABLE** Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:30 2023 Page 1 Comtech, Inc. ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f -<u>0-11-</u>Q Scale = 1:51.7

8.00 12 11 12 13 12 3x4	8.00 12	7
20	3x4	

			'			12-11-3			0-8	-13			
LOADING TCLL	(psf) 20.0	SPACING- Plate Grip DOL	2-0-0 1.15	CSI.	0.11	DEFL. Vert(LL)	in 0.00	(loc) 1	l/defl n/r	L/d 120	PLATES MT20	<b>GRIP</b> 244/190	
TCDL BCLL	10.0 0.0 *	Lumber DOL Rep Stress Incr	1.15 YES	BC WB	0.10 0.02	Vert(CT) Horz(CT)	0.00	1	n/r	120 n/a			
BCDL	10.0	Code IRC2015/TF		Matri		Hol2(C1)	-0.02	11	n/a	II/a	Weight: 73 lb	FT = 20%	

TOP CHORD

**BOT CHORD** 

12-11-3

1,3-8-0

except end verticals.

10-0-0 oc bracing: 12-13.

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

Rigid ceiling directly applied or 6-0-0 oc bracing, Except:

LUMBER-BRACING-

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

REACTIONS. All bearings 13-8-0. Max Horz 21=450(LC 12) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 21, 11, 12, 16, 18, 19 except 13=-340(LC 12), 17=-104(LC 12), 20=-112(LC 12)

2x4 SP No.2

Max Grav All reactions 250 lb or less at joint(s) 12, 13, 15, 16, 17, 18, 19, 20 except 21=286(LC 12)

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

TOP CHORD 5-7=-206/268, 7-8=-273/349, 8-9=-299/374

**BOT CHORD** 20-21=-557/444, 19-20=-544/434, 18-19=-548/436, 17-18=-548/435, 16-17=-548/435,

15-16=-548/435, 13-15=-543/424, 9-14=-325/416, 13-14=-325/416

### NOTES-

**OTHERS** 

- 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 Corner(3) -0-11-0 to 3-8-0, Exterior(2) 3-8-0 to 13-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 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 40.0psf 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) Bearing at joint(s) 21, 11, 13, 15, 16, 17, 18, 19, 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 21, 11, 12, 16, 18, 19 except (it=lb) 13=340, 17=104, 20=112,
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 11, 12, 13, 15, 16, 17, 18, 19, 20.



December 11,2023



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/TPI1 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 Onsite\Lot 1 Lemuel Black Minor 162450325 J0923-5391 J2 MONOPITCH 9 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:31 2023 Page 1 ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

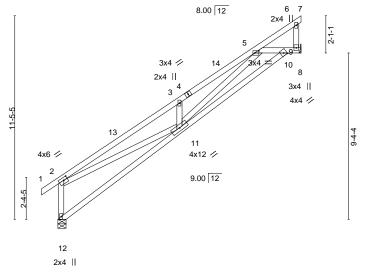
Structural wood sheathing directly applied or 4-3-11 oc purlins,

Rigid ceiling directly applied or 7-11-9 oc bracing.

except end verticals.

6-10-0 13-8-0 -0-11-0 0-11-0 6-10-0 6-10-0

Scale = 1:64.8



6-10-0 12-11-3

i late Olisets (A, i	[2.0-2-0,0-1-12], [3.0-2-14,0-1-0]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	I/defl L/d	PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.41	Vert(LL) -0.07 11-12	>999 360	MT20 244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.31	Vert(CT) -0.16 11-12	>986 240	
BCLL 0.0	Rep Stress Incr YES	WB 0.30	Horz(CT) 0.03 9	n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.07 11	>999 240	Weight: 81 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) 12=0-5-8, 9=Mechanical Max Horz 12=311(LC 12)

Plate Offsets (X V)-- [2:0-2-8 0-1-12] [5:0-2-14 0-1-8]

Max Uplift 9=-209(LC 12) Max Grav 12=597(LC 1), 9=595(LC 19)

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

TOP CHORD 2-12=-671/361, 2-3=-1619/567, 3-5=-1729/710 **BOT CHORD** 11-12=-569/616, 10-11=-615/1231, 5-10=-863/427 WFBS 2-11=-316/1221, 3-11=-408/251, 5-11=-369/827

### 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) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 13-8-0 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.
- 3) \* This truss has been designed for a live load of 40.0psf 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) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)



December 11,2023



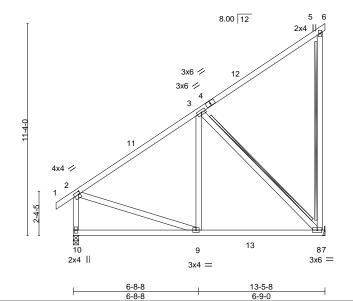
Job	Truss	Truss Type	Qty	Ply	Onsite\Lot 1 Lemuel Black Minor
10000 5004	12	MONODITCH	4	1	162450326
J0923-5391	J3	MONOPITCH	1	1	Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:32 2023 Page 1



Scale = 1:61.6



_Plate Offse	ets (X,Y)	[2:0-1-0,0-1-12]										
LOADING	i (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.08	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.12	8-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TP	12014	Matri	x-S	Wind(LL)	0.00	9	>999	240	Weight: 97 lb	FT = 20%

LUMBER-

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

TOP CHORD

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

**BOT CHORD** Rigid ceiling directly applied or 9-7-1 oc bracing. **WEBS** 2x4 SPF No.2 - 5-8, 3-8 T-Brace:

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. (size) 8=Mechanical, 10=0-3-8

Max Horz 10=306(LC 12) Max Uplift 8=-203(LC 12)

Max Grav 8=685(LC 19), 10=604(LC 19)

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

TOP CHORD 2-3=-504/0, 2-10=-558/34 **BOT CHORD** 9-10=-426/430, 8-9=-194/427 WEBS 3-9=0/272, 3-8=-593/270, 2-9=-3/369

### 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 13-6-0 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.
- 3) \* This truss has been designed for a live load of 40.0psf 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.
- 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) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



December 11,2023







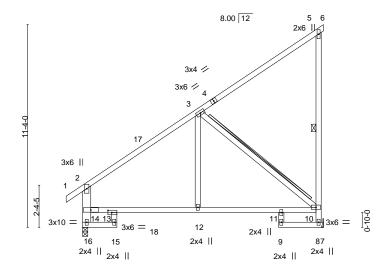
Job	Truss	Truss Type	Qty	Ply	Onsite\Lot 1 Lemuel Black Minor
					162450327
J0923-5391	J4	MONOPITCH	1	1	
					Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:33 2023 Page 1

ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f -0-11-0 1-11-0 0-11-0 1-11-0 10-11-8 13-5-8 4-6-4 4-6-4 2-6-0

Scale: 3/16"=1



լ 1-11-0 լ	6-5-4	10-11-8	13-5-8	
1-11-0	4-6-4	4-6-4	2-6-0	

Plate Offse	ets (X,Y)	[13:0-2-8,0-1-8]									
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.05 11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.12 11-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.03 8	n/a	n/a		
BCDL	10.0	Code IRC2015/TI	PI2014	Matri	x-S	Wind(LL)	0.07 12-13	>999	240	Weight: 94 lb	FT = 20%

LUMBER-

2x4 SP No.1 TOP CHORD

**BOT CHORD** 2x4 SP No.1 \*Except\*

13-15,9-11: 2x4 SP No.2 **WEBS** 2x4 SP No.2 \*Except\*

2-16: 2x6 SP No.1

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 6-0-0 oc bracing.

5-8 1 Row at midpt

2x4 SPF No.2 - 3-10 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. (size) 8=Mechanical, 16=0-3-8

> Max Horz 16=306(LC 12) Max Uplift 8=-204(LC 12)

Max Grav 8=641(LC 19), 16=635(LC 19)

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

TOP CHORD 2-3=-569/0, 8-10=-653/292, 14-16=-565/119, 2-14=-515/121

**BOT CHORD** 15-16=-350/148, 13-14=0/641, 12-13=-259/515, 11-12=-259/515, 10-11=-274/514

WFBS 3-10=-648/333, 3-12=-13/271

### 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 13-6-0 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.
- 3) \* This truss has been designed for a live load of 40.0psf 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.
- 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) 8=204.
- 6) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



December 11,2023



Job	Truss	Truss Type	Qty	Ply	Onsite\Lot 1 Lemuel Black Minor
					162450328
J0923-5391	J5	ROOF SPECIAL	6	1	
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:34 2023 Page 1

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

5-8, 3-10

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

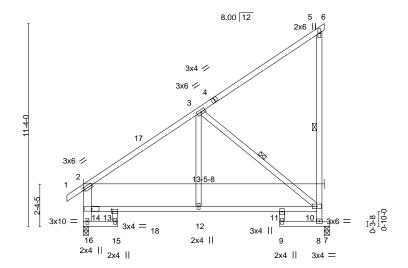
except end verticals.

1 Row at midpt

6-0-0 oc bracing: 15-16,13-15.

ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f -0-11-0 1-11-0 0-11-0 1-11-0 10-11-8 13-5-8 4-6-4 4-6-4 2-6-0

Scale: 3/16"=1



1-11-0	6-5-4	10-11-8	13-5-8 13 <sub>1</sub> 9-0
1-11-0	4-6-4	4-6-4	2-6-0 0-3-8

Plate Offsets (X,Y)	[2:0-1-0,0-1-8], [13:0-0-8,0-1-8]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.41	Vert(LL) -0.08 11-12 >999 360	MT20 244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.41	Vert(CT) -0.19 11-12 >840 240	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.23	Horz(CT) 0.05 7 n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.06 12-13 >999 240	Weight: 94 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

WEBS

LUMBER-

2x4 SP No.1 TOP CHORD

BOT CHORD 2x4 SP No.1 \*Except\*

13-15,9-11: 2x4 SP No.2

WEBS 2x4 SP No.2 \*Except\* 2-16: 2x6 SP No.1

REACTIONS. (size) 16=0-3-8, 7=0-3-8

Max Horz 16=306(LC 12)

Max Uplift 7=-196(LC 12)

Max Grav 16=655(LC 19), 7=624(LC 19)

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

TOP CHORD 2-3=-605/14, 8-10=-719/317, 14-16=-583/126, 2-14=-540/131

**BOT CHORD** 15-16=-344/132, 13-14=0/683, 12-13=-271/545, 11-12=-271/545, 10-11=-229/398

3-10=-680/345, 3-12=-31/294 **WEBS** 

### 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 13-6-0 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.
- 3) \* This truss has been designed for a live load of 40.0psf 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.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=196



December 11,2023



Job Truss Truss Type Qty Ply Onsite\Lot 1 Lemuel Black Minor 162450329 J0923-5391 J6 **GABLE** Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:35 2023 Page 1 ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Scale = 1:58.7

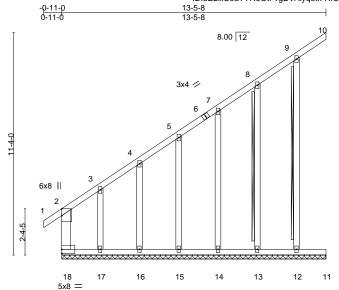


Plate Of	fsets (X,Y)	[2:0-4-3,Edge]										
LOADIN	IG (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.ó	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.00	` ź	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	ВС	0.51	Vert(CT)	0.00	2	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.22	10	n/a	n/a		
BCDL	10.0	Code IRC2015/T	PI2014	Matrix	k-S						Weight: 108 lb	FT = 20%

LUMBER-BRACING-

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

Structural wood sheathing directly applied or 5-9-12 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

2x4 SPF No.2 - 8-13, 9-12 T-Brace: 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 13-5-8.

Max Horz 18=444(LC 12) (lb)

Max Uplift All uplift 100 lb or less at joint(s) 10, 14, 13, 12 except 18=-250(LC 10),

17=-898(LC 12), 15=-127(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 10, 11, 16, 15, 14, 13, 12

except 18=886(LC 12), 17=408(LC 10)

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

TOP CHORD 2-18=-572/455, 2-3=-679/546, 3-4=-362/298, 4-5=-332/273

WEBS 3-17=-489/549

### 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 Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 13-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 40.0psf 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) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 14, 13, 12 except (jt=lb) 18=250, 17=898, 15=127.
- 11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



December 11,2023



Job Truss Truss Type Qty Onsite\Lot 1 Lemuel Black Minor 162450330 J0923-5391 M1 MONOPITCH Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:36 2023 Page 1 Comtech, Inc. ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 6-0-0 0-10-8 6-0-0 Scale = 1:13.4 2x4 || 3 3.00 12 2x4 LOADING (psf) SPACING-DEFL. L/d **PLATES** GRIP 2-0-0 CSI (loc) I/def 20.0 Plate Grip DOL Vert(LL) -0.04 244/190 **TCLL** 1.15 TC 0.52 >999 360 MT20 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.56 Vert(CT) -0.09 >786 240 2-4 **BCLL** 0.0 Rep Stress Incr NO WB 0.00 Horz(CT) 0.00 n/a n/a **BCDL** 10.0 Code IRC2015/TPI2014 Matrix-P Wind(LL) 0.08 >868 240 Weight: 26 lb FT = 20% LUMBER-BRACING-TOP CHORD TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

**BOT CHORD** 

except end verticals.

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

2x4 SP No 1 2x6 SP No.1

BOT CHORD WEBS 2x4 SP No.2

REACTIONS. (size) 4=0-1-8, 2=0-3-0 Max Horz 2=81(LC 4)

Max Uplift 4=-295(LC 4), 2=-336(LC 4)

Max Grav 4=510(LC 1), 2=581(LC 1)

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

### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; porch left exposed; 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 40.0psf 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) except (jt=lb) 4=295, 2=336
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

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

Vert: 1-3=-60, 2-4=-120(F=-100)



December 11,2023

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/TPI1 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	Onsite\Lot 1 Lemuel	Black Minor	1624503	
J0923-5391		M2	MONOPITCH	7		1			1624503	31
							Job Reference (optio			
Comtech, Inc,	Fayettev	rille, NC - 28314,		ID-ADAISI				ustries, Inc. Fri Dec 80 0Hq3NSgPqnL8w3uITXb		
1	-0-1	10-8		6-0-0	J9a i i	Rouirvgi	= VAIYQOIK-RIC!PSD/I	JHqsiNSgPqiiLowsui i At	JGKWICD0I7J4ZJC?I	
-	0-1	0-8		6-0-0					$\neg$	
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2									4-	
1-11-2			5			-				1-11-2
-										-
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8-9-0									XΙ	0-5-8
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		3x4 =						4		
								2x4	II	
		0-3-0		6-0-0 5-9-0					$\dashv$	
										_
LOADING (psf) TCLL 20.0		SPACING- 2-0- Plate Grip DOL 1.1		DEFL. Vert(LL)		(loc) 2-4	I/defl L/d >999 360	PLATES MT20	<b>GRIP</b> 244/190	
TCDL 20.0		Lumber DOL 1.1			-0.01 -0.03		>999 360 >999 240	IVI I ZU	244/190	
BCLL 0.0 *		Rep Stress Incr YE	S WB 0.00		0.00	4	n/a n/a			
BCDL 10.0		Code IRC2015/TPI2014	Matrix-P		0.03	2-4	>999 240	Weight: 26 lb	FT = 20%	
LUMBER-			1	BRACING-				1		

TOP CHORD

**BOT CHORD** 

BOT CHORD

TOP CHORD 2x4 SP No.1 2x6 SP No.1

2x4 SP No.2 WEBS

REACTIONS. (size) 4=0-1-8, 2=0-3-0

Max Horz 2=57(LC 8) Max Uplift 4=-92(LC 8), 2=-121(LC 8)

Max Grav 4=223(LC 1), 2=294(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 5-10-1 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 40.0psf 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=121.



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

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

except end verticals.

December 11,2023



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Job		Truss	Truss Type		Q	ty	Ply	Onsite\Lot 1 Lemue	el Black Minor		
10000 5004		D4	CARLE							162	2450332
J0923-5391		P1	GABLE		2		1	Job Reference (opti	onal)		
Comtech, Inc,	Fayette	eville, NC - 28314,					8.430 s		dustries, Inc. Fri Dec 8	07:49:37 2023 Pa	age 1
	•				ID:3B2I				70Hq3NSgPqnL8w3uIT		
	0-4-8			6-9-10 6-5-2					$\dashv$		
	0-4-8			6-5-2							
										Scale	e = 1:15.
										3x4 =	
T										4	
								2x4			
				2.0	00 12			2x4    3		9	
				3.0	00   12			,			
					2x4		_				
					10						
				9	.,,						
2-3-10					$\overline{}$						
5					0						
		3x4 =									
	2										
1	-										
0-4-0											
4		<del></del>	*******	~~~~~~~	~~~~~~~~~	×××××	~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~	~~~~~	
	×		·····	<b>*********</b>	·····	<b>****</b>	<b>*****</b>			<b>*******</b>	
					_					_	
					7			6		5	
					2x4			2x6	2x	4	
	0-4-8				8-4-8 8-0-0						
Plate Offsets (X		0-1-15,0-1-8]			6-0-0						
`		· · · · · · · · · · · · · · · · · · ·		I							
LOADING (psf)	)	SPACING-	2-0-0 CSI.		DEFL.	in	(loc)	I/defl L/d	PLATES	GRIP	
TCLL 20.0	)	Plate Grip DOL	1.15 TC	0.36	Vert(LL)	-0.00	1	n/r 120	MT20	244/190	
TCDL 10.0	)	Lumber DOL	1.15 BC	0.04	Vert(CT)	0.00	1	n/r 120			

LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 *	SPACING-         2-0-0           Plate Grip DOL         1.15           Lumber DOL         1.15           Rep Stress Incr         YES	CSI. TC 0.36 BC 0.04 WB 0.09	DEFL.         in (loc)         l/defl         L/d           Vert(LL)         -0.00         1         n/r         120           Vert(CT)         0.00         1         n/r         120           Horz(CT)         0.00         5         n/a         n/a	PLATES         GRIP           MT20         244/190
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	11012(01) 0.00 0 100 100	Weight: 36 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 7-10-8.

(lb) - Max Horz 2=98(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 5, 2 except 6=-225(LC 12) Max Grav All reactions 250 lb or less at joint(s) 5, 2, 7 except 6=409(LC 1)

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

WEBS 3-6=-383/501

### 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 Corner(3) -0-4-8 to 4-0-5, Exterior(2) 4-0-5 to 7-10-1 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 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 40.0psf 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) 5, 2 except (jt=lb)
- 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 11,2023

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Job Truss Truss Type Qty Onsite\Lot 1 Lemuel Black Minor 162450333 J0923-5391 P2 MONOPITCH 5 Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Dec 8 07:49:38 2023 Page 1 Comtech, Inc, Fayetteville, NC - 28314, ID:3B2lliU9aTYR6OtFvgEVAlyq8tk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 8-0-0 0-3-9 0-4-8 6-5-2 6-5-2 1-3-5 Scale = 1:15.7 3x4 = 3.00 12 3x4 = 2x4 || 3x4 = Plate Offsets (X,Y)--[2:0-4-4,Edge], [3:0-1-15,0-1-8] SPACING-**PLATES** LOADING (psf) CSI. DEFL. in (loc) I/defI L/d GRIP TCLL 20.0 Plate Grip DOL 1.15 TC 0.91 Vert(LL) -0.05 2-4 >999 360 244/190 MT20 TCDL 10.0 Lumber DOL 1.15 BC 0.58 Vert(CT) -0.10 2-4 >961 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.03 Horz(CT) 0.00 n/a n/a

Wind(LL)

BRACING-

TOP CHORD

**BOT CHORD** 

2-4

>878

0.11

240

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

Structural wood sheathing directly applied or 2-2-0 oc purlins.

LUMBER-

**BCDL** 

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

10.0

REACTIONS. (size) 2=0-3-0, 4=0-1-8 Max Horz 2=69(LC 8)

Max Uplift 2=-130(LC 8), 4=-126(LC 8) Max Grav 2=340(LC 1), 4=307(LC 1)

Code IRC2015/TPI2014

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) -0-4-8 to 4-0-5, Interior(1) 4-0-5 to 7-10-1 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

Matrix-P

- 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 40.0psf 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) except (jt=lb) 2=130, 4=126
- 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building



FT = 20%

Weight: 33 lb



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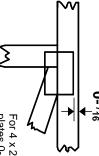


### Symbols

## PLATE LOCATION AND ORIENTATION



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



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

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

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

### PLATE SIZE

4 × 4

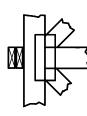
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

### LATERAL BRACING LOCATION



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

### **BEARING**



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

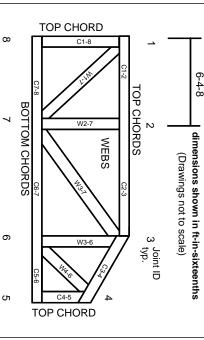
### Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction Design Standard for Bracing.

Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: 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

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

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

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### MiTek



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

# ▲ General Safety Notes

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

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- 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.

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- 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.

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- 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.

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- 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 responsibility of truss fabricator. General practice is to camber for dead load deflection.
- 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 specified.
- 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 environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- The design does not take into account any dynamic or other loads other than those expressly stated.