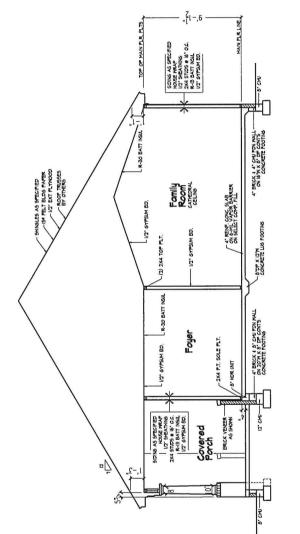


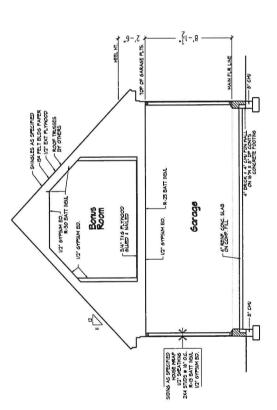
JOHN E CALLOII

Revisions

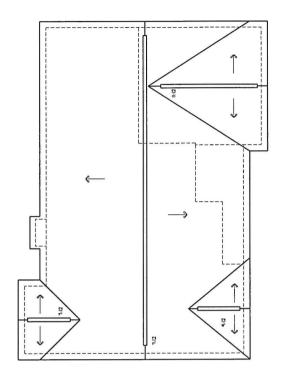
Project The Link



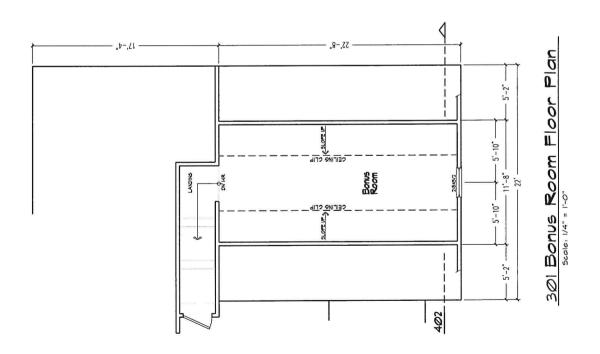
401 Building Section

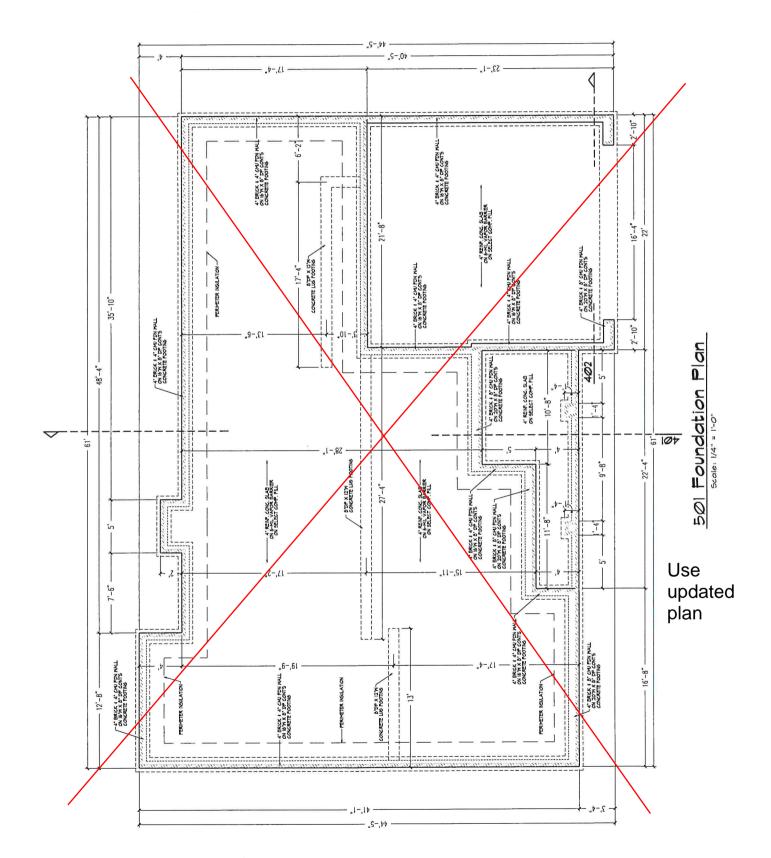


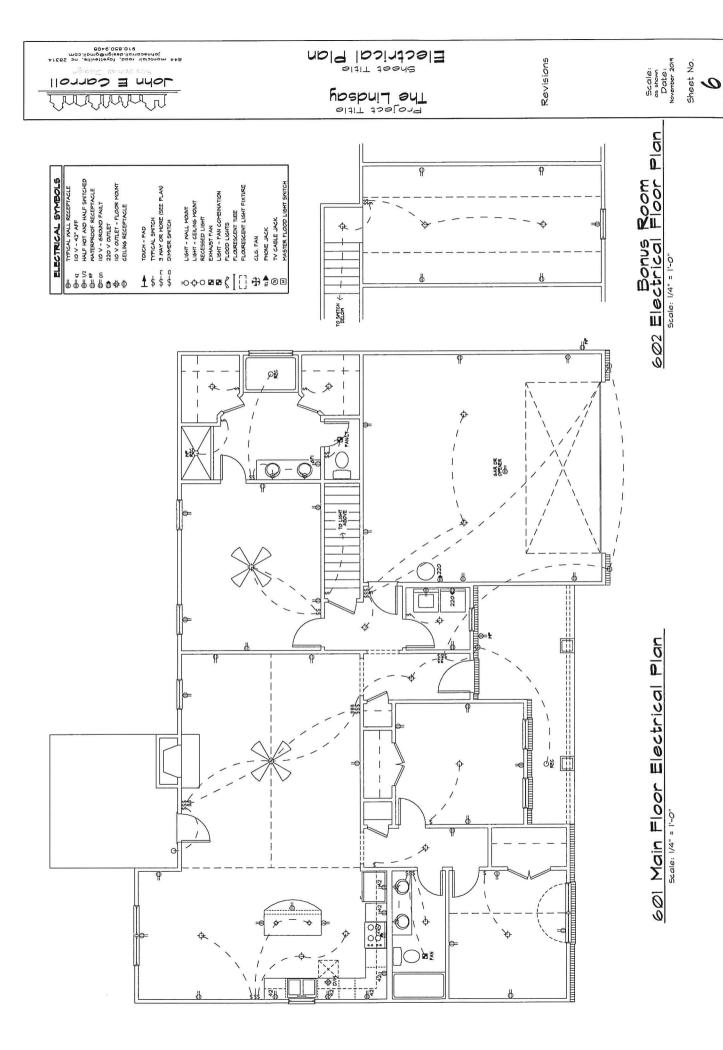
402 Building Section



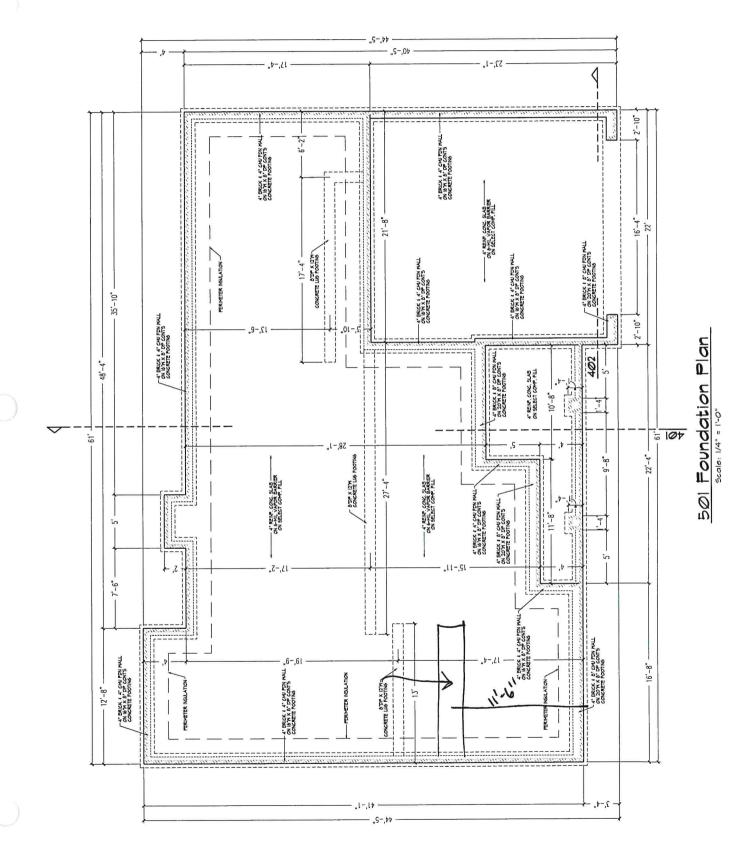














Client:

Wellco Contractors

Project: Address:

1/9/2020

Designer: Curtis Quick Job Name: The Lindsay Beams

Project #:

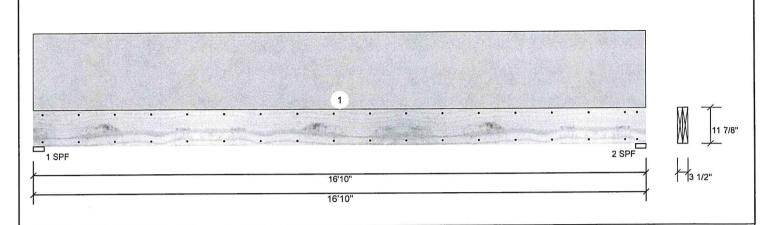
Date:

Kerto-S LVL

1.750" X 11.875"

2-Ply - PASSED

Level: Level



Member Inforn	nation		Reaction	Reactions UNPATTERNED Ib (Uplift)								
Туре:	Girder	Application:	Floor	Brg	Live	Dead	Snow	Wii	nd	Const		
Plies:	2	Design Method:	ASD	1	0	2182	0		0	0		
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015	2	0	2182	0		0	0		
Deflection LL:	480	Load Sharing:	No									
Deflection TL:	360	Deck:	Not Checked									
Importance:	Normal											
Temperature:	Temp <= 100°F											
				Bearing	S							
				Bearing	Length	Cap. Rea	ct D/L lb	Total Lo	d. Case	Ld. Comb.		
				1 - SPF	3.500"	42%	2182 / 0	2182 U	niform	D		
				2 - SPF	3.500"	42%	2182 / 0	2182 U	niform	D		

### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8689 ft-lb	8'5"	17919 ft-lb	0.485 (48%)	D	Uniform
Unbraced	8689 ft-lb	8'5"	8700 ft-lb	0.999 (100%)	D	Uniform
Shear	1866 lb	15'7 3/8"	7980 lb	0.234 (23%)	D	Uniform
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.453 (L/433)	8'5 1/16"	0.546 (L/360)	0.830 (83%)	D	Uniform
nemo io Haviano io						

### **Design Notes**

- 1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at a maximum of 10'9" o.c.
- 6 Bottom braced at 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			Тор	250 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				9 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

chemicals

- Handling & Installation

  1. LVL beams must not be cut or drilled

  2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals

  3. Damaged Beams must not be used

  4. Design assumes top edge is laterally restrained

  5. Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Metsä Wood 3071 Commerce Dr. Suite E Fort Gratiot, MI 48059 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633

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



Page 1 of 2



isDesign™

Client:

Wellco Contractors

Project: Address: Date:

1/9/2020

Curtis Quick Job Name: The Lindsay Beams Page 2 of 2

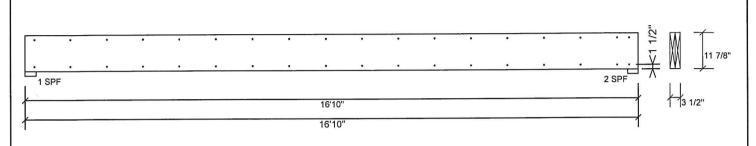
Designer: Project #:

Kerto-S LVL

1.750" X 11.875"

2-Ply - PASSED

Level: Level



### Multi-Ply Analysis

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

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

### Notes

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

### Lumber

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

- Handling & Installation

  1. IVI 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

Manufacturer Info Metsä Wood

3071 Commerce Dr, Suite E Fort Gratiot, MI 48059 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633

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







### **Trenco**

818 Soundside Rd Edenton, NC 27932

Re: J0420-1598

Wellco/13 Hidden Lakes/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: E14287438 thru E14287456

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844

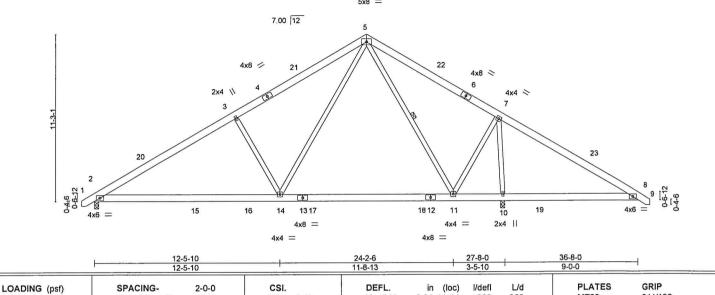


April 13,2020

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.

Qty Wellco/13 Hidden Lakes/Harnett Ply Job Truss Truss Type E14287438 FINK J0420-1598 Job Reference (optional) 8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:14 2020 Page 1 Comtech, Inc. Fayetteville, NC - 28314, ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-4nTV\_58Vhflw9EWh13qMWcPWLoLEj6gzRKXuxXzRC6I 36-8-0 -0-10-8 0-10-8 8-9-10 9-6-6 Scale = 1:74.7 5x8 =



Vert(LL)

Vert(CT)

Horz(CT)

Wind(LL)

BRACING-

TOP CHORD

**BOT CHORD** 

WEBS

-0.24 11-14

-0.32 11-14

10

0.02

0.05 2-14 >999

>999

n/a

>999

360

240

n/a

240

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

LUMBER-

TCLL

TCDI

**BCII** 

BCDL

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

20.0

10.0

10.0

0.0

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

Max Horz 2=-267(LC 10)

Max Uplift 2=-91(LC 12), 10=-125(LC 13) Max Grav 2=1206(LC 19), 10=2136(LC 2)

Plate Grip DOL

Ren 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=-1654/175, 3-5=-1459/239, 5-7=-382/249, 7-8=-530/819 **BOT CHORD** 2-14=-149/1530, 11-14=0/647, 10-11=-486/531, 8-10=-572/562

WEBS 3-14=-622/341, 5-14=-172/1262, 5-11=-847/388, 7-11=-142/1221, 7-10=-1998/595

2-0-0

1 15

1.15

YES

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-13 to 3-8-0, Interior(1) 3-8-0 to 18-4-0, Exterior(2) 18-4-0 to 22-8-13, Interior(1) 22-8-13 to 37-4-13 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

0.49

0.64

0.99

TC

BC

WB

Matrix-S

- 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 91 lb uplift at joint 2 and 125 lb uplift at joint 10.



MT20

Structural wood sheathing directly applied or 5-7-11 oc purlins.

5-11

Weight: 251 lb

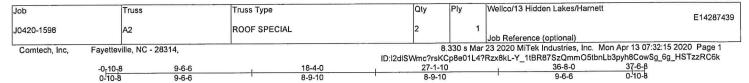
244/190

FT = 20%

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not Design Value to the see only with the research 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 

\*\*ABSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





Scale = 1:79.0

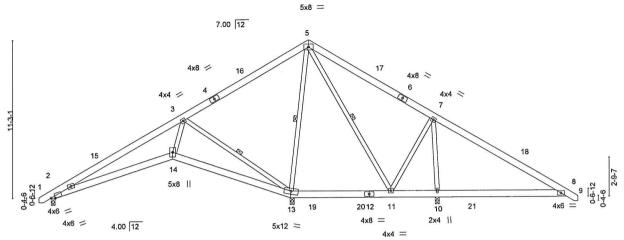


Plate Offsets (X,Y)	8-7-12 [2:0-3-6,0-1-3]	<u>'</u> 8-4	4	7-2-6		3-5-10		9-0-0	
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2015/TPI2	2-0-0 CSI. 1.15 TC 1.15 BC YES WB 014 Matri	0.49 0.23 0.54 ix-S	DEFL. Vert(LL) Vert(CT) Horz(CT) Wind(LL)	in (lo -0.05 11- -0.11 2- 0.03 0.03 2-	13 >999 14 >999 13 n/a	L/d 360 240 n/a 240	PLATES MT20 Weight: 259 lb	GRIP 244/190 FT = 20%

24-2-6

BRACING-

TOP CHORD

**BOT CHORD** 

WEBS

27-8-0

10-0-0 oc bracing: 2-14.

1 Row at midpt

36-8-0

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

5-11, 3-13, 5-13

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

LUMBER-

REACTIONS.

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

2x4 SP No.2

(size) 2=0-3-8, 13=0-3-8, 10=0-3-8

8-7-12

Max Horz 2=-267(LC 10)

Max Uplift 2=-46(LC 13), 13=-175(LC 12), 10=-226(LC 13) Max Grav 2=437(LC 23), 13=1809(LC 19), 10=1242(LC 24)

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

2-3=-513/60, 3-5=-122/807, 5-7=-177/654, 7-8=-532/824 TOP CHORD

2-14=-132/436, 13-14=-138/320, 11-13=-572/330, 10-11=-539/535, 8-10=-577/563

BOT CHORD 5-11=-249/317, 7-11=-111/308, 3-14=0/437, 3-13=-971/268, 7-10=-1015/558,

**WEBS** 5-13=-1063/136

### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-13 to 3-8-0, Interior(1) 3-8-0 to 18-4-0, Exterior(2) 18-4-0 to 22-8-13, Interior(1) 22-8-13 to 37-4-13 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

17-0-0

- 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) Bearing at joint(s) 2 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 46 lb uplift at joint 2, 175 lb uplift at joint 13 and 226 lb uplift at joint 10.

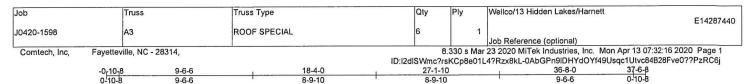


April 13,2020

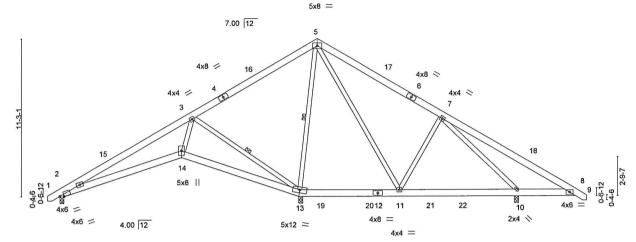
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Edenton, NC 27932



Scale = 1:79.0



		8-7-12	1	8-4-	4	7-2-6		1	8-3	-14	4-1-12	Jan 1
Plate Off	fsets (X,Y)	[2:0-3-6,0-1-3]										
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	0.42	Vert(LL)	-0.05	2-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.11	2-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.03	13	n/a	n/a		
BCDL	10.0	Code IRC2015/TF	12014	Matri	x-S	Wind(LL)	0.03	2-14	>999	240	Weight: 263 lb	FT = 20%

LUMBER-

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

BRACING-

24-2-6

TOP CHORD BOT CHORD WEBS

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

36-8-0

Rigid ceiling directly applied or 6-0-0 oc bracing. 1 Row at midpt 3-13, 5-13

32-6-4

REACTIONS. (size) 2=0-3-8, 13=0-3-8, 10=0-3-8

Max Horz 2=-267(LC 10)

Max Uplift 2=-49(LC 13), 13=-163(LC 12), 10=-155(LC 13) Max Grav 2=431(LC 23), 13=2086(LC 19), 10=865(LC 24)

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

8-7-12

2-3=-487/50, 3-5=-127/794, 5-7=-304/298, 7-8=-377/600 TOP CHORD

2-14=-124/461, 13-14=-130/342, 11-13=-520/257, 10-11=-141/255, 8-10=-408/433 **BOT CHORD** 

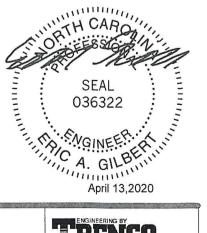
5-11=-113/717, 7-11=-481/247, 3-14=0/471, 3-13=-982/253, 5-13=-1358/192, WEBS

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-13 to 3-8-0, Interior(1) 3-8-0 to 18-4-0, Exterior(2) 18-4-0 to 22-8-13, Interior(1) 22-8-13 to 37-4-13 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip

17-0-0

- 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) Bearing at joint(s) 2 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 49 lb uplift at joint 2, 163 lb uplift at joint 13 and 155 lb uplift at joint 10.



MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and property 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

ANSITYPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Wellco/13 Hidden Lakes/Harnett Qty Job Truss Truss Type Ply E14287441 ROOF SPECIAL J0420-1598 A4 Job Reference (optional) 8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:17 2020 Page 1 Fayetteville, NC - 28314, Comtech, Inc. ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-UM9ec7AN\_ahU0hEGiCN38E12h0PTwWXP8ImZYrzRC6i 36-8-0 -0-10-8 0-10-8 8-9-10 9-6-6 Scale = 1:74.1 5x8 || 7.00 12 5 4x8 / 4x8 > 6 2x4 // 4x4 / 12 5x8 || 19 20 17 18 10 9 11 4x6 = 4x8 = 4x6 = 4.00 12 5x12 = 4x4 = 36-8-0 17-0-0 8-4-4 12-5-10 Plate Offsets (X,Y)--[2:0-3-6,0-1-3] DEFL I/defl L/d **PLATES** GRIP CSI. LOADING (psf) SPACING-2-0-0 in (loc) 244/190 >999 360 MT20 Plate Grip DOL TC BC -0.16 8-9 TCLL 20.0 1.15 0.42 Vert(LL) -0.33 240 TCDL 10.0 Lumber DOL 1 15 0.48 Vert(CT) 8-9 >701 WB n/a 0.79 Horz(CT) 0.03 11 n/a BCLL 0.0 Rep Stress Incr YES FT = 20% Code IRC2015/TPI2014 0.04 8-9 >999 240 Weight: 250 lb BCDL 10.0 Matrix-S Wind(LL) BRACING-LUMBER-

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

TOP CHORD **BOT CHORD** WEBS

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

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

3-11, 5-11 1 Row at midpt

REACTIONS.

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

Max Horz 2=264(LC 9)

Max Uplift 2=-45(LC 13), 11=-152(LC 12), 8=-109(LC 13) Max Grav 2=425(LC 23), 11=2242(LC 19), 8=698(LC 20)

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

2-3=-462/58, 3-5=-116/823, 5-7=-546/306, 7-8=-741/252 TOP CHORD

2-12=-154/408, 11-12=-155/297, 9-11=-517/233, 8-9=-132/570 **BOT CHORD** 

5-9=-190/1153, 7-9=-637/343, 3-12=0/454, 3-11=-963/268, 5-11=-1561/240 WEBS

### NOTES-

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

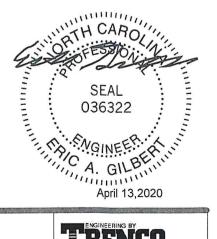
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-13 to 3-8-0, Interior(1) 3-8-0 to 18-4-0, Exterior(2) 18-4-0 to 22-8-13, Interior(1) 22-8-13 to 36-6-4 zone; C-C for members and forces & 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.

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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

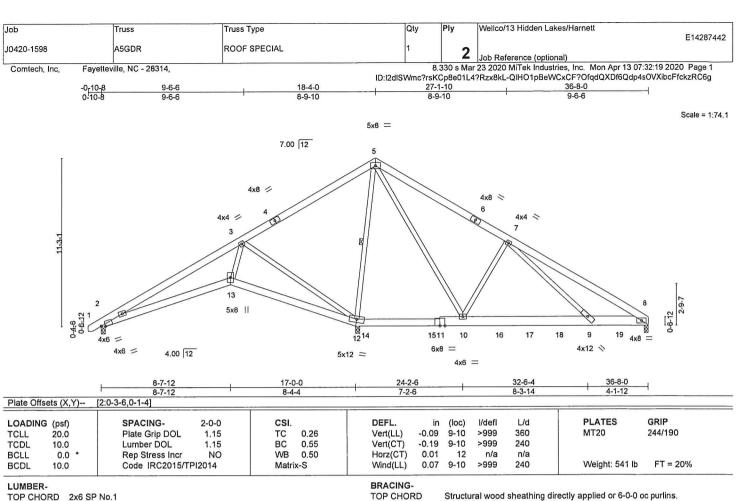
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 2, 152 lb uplift at joint 11 and 109 lb uplift at joint 8.



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



Edenton, NC 27932



**BOT CHORD** 

WEBS

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

5-12

1 Row at midpt

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

2x6 SP No.1 \*Except\*

8-11: 2x8 SP No.1

WEBS 2x4 SP No.2

REACTIONS.

(size) 2=0-3-8, 12=0-3-8, 8=0-3-8

Max Horz 2=264(LC 5)

Max Uplift 2=-113(LC 28), 12=-224(LC 8), 8=-236(LC 9) Max Grav 2=382(LC 16), 12=3070(LC 1), 8=2365(LC 20)

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

TOP CHORD 2-3=-318/472, 3-5=-130/1022, 5-7=-1227/382, 7-8=-4291/419

2-13=-413/386, 12-13=-381/282, 10-12=-467/155, 9-10=-213/1535, 8-9=-279/3588 **BOT CHORD WEBS** 

5-10=-259/2393, 7-10=-1254/313, 3-13=-137/388, 3-12=-949/364, 5-12=-2593/183,

7-9=-115/2917

### 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, 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.

Unbalanced roof live loads have been considered for this design.

4) Wind: ASCE 7-10; Vult=130mph (3-second gust) 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, with BCDL = 10.0psf.
- 7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 2, 224 lb uplift at joint 12 and 236 lb uplift at joint 8.

9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 527 lb down and 46 lb up at 26-7-4, 527 lb down and 46 lb up at 28-7-4, 527 lb down and 46 lb up at 30-7-4, and 527 lb down and 46 lb up at 32-7-4, and 527 lb down and 46 lb up at 34-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2 MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MTEk® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellco/13 Hidden Lakes/Harnett E14287442
J0420-1598	A5GDR	ROOF SPECIAL	1	2	Job Reference (optional)

Comtech, Inc,

Fayetteville, NC - 28314,

8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:19 2020 Page 2 ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-QIHO1pBeWCxCF?OfqdQXDf6Qdp4s0VXibcFfckzRC6g

LOAD CASE(S) Standard

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

Vert: 1-5=-60, 5-8=-60, 2-13=-20, 12-13=-20, 8-12=-20

Concentrated Loads (lb)

Vert: 9=-527(F) 16=-527(F) 17=-527(F) 18=-527(F) 19=-527(F)



Truss Truss Type Qty Wellco/13 Hidden Lakes/Harnett Job E14287443 J0420-1598 A6 COMMON 1 Job Reference (optional) 8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:20 2020 Page 1 Fayetteville, NC - 28314, Comtech, Inc. ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-uxqmE9CGHV33t9zrOKxmmtfZVDNR7v4rqG\_D9AzRC6f 9-6-6 18-4-0 8-9-10 25-4-0 9-6-6 Scale = 1:69.7 5x5 = 7.00 12 12 4x6 / 3x4 || 2×4 \\ 0-6-12 14 15 8 16 17 76 3x4 = 4x4 =4x6 = 5x8 = 18-4-0 25-4-0 5-10-6 7-0-0 Plate Offsets (X,Y)-- [1:0-0-6,Edge] PLATES GRIP LOADING (psf) SPACING-2-0-0 CSI. DEFL (loc) I/defl L/d Plate Grip DOL 0.45 Vert(LL) -0.36 7-9 >837 360 MT20 244/190 TCLL 20.0 1.15 TC Lumber DOL 1.15 ВС 0.72 Vert(CT) -0.47 7-9 >635 240 TCDL 10.0 0.0 Rep Stress Incr WB 0.68 Horz(CT) 0.02 n/a n/a **BCLL** 

Wind(LL)

BRACING-TOP CHORD

BOT CHORD

WEBS

0.05

1-9

>999

except end verticals.

1 Row at midpt

240

Rigid ceiling directly applied or 9-7-14 oc bracing.

Structural wood sheathing directly applied or 5-6-10 oc purlins,

Weight: 189 lb

FT = 20%

LUMBER-

BCDL

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

10.0

2x4 SP No.2 \*Except\*

5-7: 2x6 SP No.1

REACTIONS. (size) 7=0-3-8, 1=Mechanical

Max Horz 1=271(LC 12)

Max Uplift 7=-81(LC 12), 1=-49(LC 12) Max Grav 7=1260(LC 19), 1=1154(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-1672/247, 2-4=-1475/311, 5-7=-261/139

Code IRC2015/TPI2014

1-9=-343/1496, 7-9=-104/580 **BOT CHORD** 

2-9=-633/345, 4-9=-156/1320, 4-7=-967/201 **WEBS** 

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 18-4-0, Exterior(2) 18-4-0 to 22-8-13, Interior(1) 22-8-13 to 24-11-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

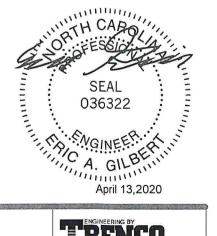
Matrix-S

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) Refer to girder(s) for truss to truss connections.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 7 and 49 lb uplift at joint 1.



MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent uckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent uckling 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 properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TH1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job Truss Truss Type Qty Ply Wellco/13 Hidden Lakes/Harnett F14287444 J0420-1598 A6GE GABLE Job Reference (optional) 8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:21 2020 Page 1 Fayetteville, NC - 28314, Comtech, Inc. ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-M8O8SUDu2pBwUJY1x2S?J4BqdduksU1\_2wkmhdzRC6e 18-4-0 8-9-10 Scale = 1:66 1 5x5 = 7.00 12 11 12 10 13 3x4 || 4x6 / 14 15 0-6-12 3x4 22 29 28 27 26 25 24 23 21 20 19 18 17 16 4x6 = 3x4 || 12-5-10 12-5-10 25-4-0 12-10-6 LOADING (psf) SPACING-2-0-0 CSI. DEFL in (loc) I/defl L/d **PLATES** GRIP 20.0 Plate Grip DOL 1.15 TC 0.04 Vert(LL) n/a n/a 999 MT20 244/190 TCLL BC 999 TCDL 10.0 Lumber DOL 1.15 0.01 Vert(CT) n/a n/a 0.12 16 0.0 Rep Stress Incr YES WB Horz(CT) 0.00 n/a n/a **BCLL** Code IRC2015/TPI2014 Weight: 256 lb FT = 20% BCDL 10.0 Matrix-S BRACING-LUMBER-TOP CHORD 2x6 SP No.1 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, **BOT CHORD** 2x6 SP No.1

2x6 SP No.1 OTHERS 2x4 SP No.2

**BOT CHORD** WERS

except end verticals.

Rigid ceiling directly applied or 10-0-0 oc bracing. T-Brace<sup>1</sup>

2x4 SPF No.2 - 11-20, 10-21, 9-22, 12-19,

13-18

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 25-4-0.

(lb) -Max Horz 1=401(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 16, 1, 21, 22, 24, 25, 26, 27, 28,

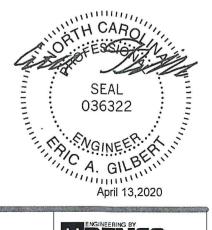
19, 18, 17 except 29=-108(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 16, 1, 20, 21, 22, 24, 25, 26, 27, 28, 29, 19, 18, 17

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 1-2=-439/281, 2-3=-358/236, 3-4=-297/216 TOP CHORD

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

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-0-0 to 4-4-0, Exterior(2) 4-4-0 to 18-4-0, Corner(3) 18-4-0 to 22-8-13. Exterior(2) 22-8-13 to 24-11-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 1, 21, 22, 24, 25, 26, 27, 28, 19, 18, 17 except (jt=lb) 29=108.
- 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MTEk® connectors. This design is based only upon parameters and properly incorporate this design in the variety of the 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job Truss Truss Type Qty Ply Wellco/13 Hidden Lakes/Harnett E14287445 ATTIC .10420-1598 B1 Job Reference (optional)

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:23 2020 Page 1 ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-JWWvtAF8aQRekciQ3SUTOVH2jRRpKMIHWEDtIVzRC6c

Structural wood sheathing directly applied or 5-3-6 oc purlins,

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

except end verticals.

21-11-0 10-11-8 12-10-6 1-10-14 1-10-14

6x8 =

Scale = 1:73.4

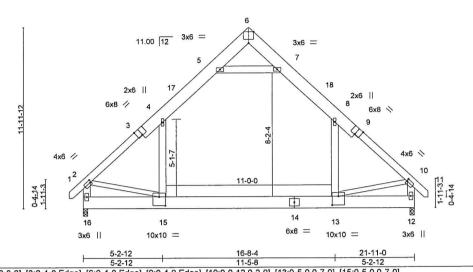


Plate Off	sets (X,Y)	[2:0-0-12,0-2-0], [3:0-4-0	Eage], [6:0-4-	0,Eage], [9:0	-4-0,Eagej, [	10:0-0-12,0-2-0], [	13:0-5-0	0,0-7-0]	, [15.0-5-	0,0-7-0]		
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.14	13-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.24	13-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TF	PI2014	Matri	x-S	Wind(LL)	0.04	15	>999	240	Weight: 247 lb	FT = 20%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

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

1-3,9-11: 2x6 SP No.1

BOT CHORD 2x10 SP No.1

**WEBS** 2x6 SP No.1 \*Except\*

2-15,10-13: 2x4 SP No.2

REACTIONS. (size) 16=0-3-8, 12=0-3-8

Max Horz 16=-304(LC 10) Max Grav 16=1457(LC 20), 12=1457(LC 21)

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

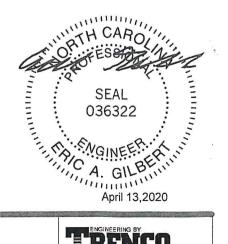
2-4=-1659/0, 4-5=-1066/149, 5-6=-17/484, 6-7=-17/484, 7-8=-1066/149, 8-10=-1658/0, TOP CHORD

2-16=-1563/34, 10-12=-1564/34

BOT CHORD 15-16=-284/516, 13-15=0/1110, 12-13=-62/308 5-7=-1626/216, 4-15=0/750, 8-13=0/750, 2-15=0/919, 10-13=0/925 WEBS

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-11, Interior(1) 3-7-11 to 11-0-0, Exterior(2) 11-0-0 to 15-4-13, Interior(1) 15-4-13 to 22-9-1 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 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) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-15, 8-13
- 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
- 7) Attic room checked for L/360 deflection.



MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and property 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 slability and to prevent ucallapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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Job	Truss	Truss Type	Qty	Ply	Wellco/13 Hidden Lakes/Harnett E14287446
J0420-1598	B2	ATTIC	10	1	211297110
		1			Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

8 330 s Mar 23 2020 MiTek Industries Inc. Mon Apr 13 07:32:24 2020 Page 1 ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-nj4H4WFnLkZVLmHcdA?iwjpDDqmz3pBRluyQlxzRC6b

Structural wood sheathing directly applied or 5-2-13 oc purlins,

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

except end verticals.

21-11-0 1-10-14 1-10-14 5-2-12

6x8 =

Scale = 1:73.4

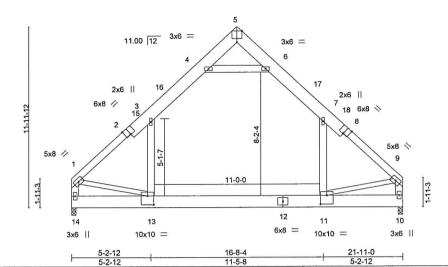


Plate Off	sets (X,Y)	[2:0-4-0,Edge], [5:0-4-0,Edge],	[8:0-4-0,Edge], [11	:0-5-0,0-7-0], [	13:0-5-0,0-7-0]					
LOADING	20.0	SPACING- 2-0 Plate Grip DOL 1.1	5 TC	0.53	DEFL. Vert(LL)	in (loc) -0.15 11-13	l/defl >999	L/d 360	PLATES MT20	GRIP 244/190
TCDL	10.0	Lumber DOL 1.1		0.62	Vert(CT)	-0.25 11-13	>999	240		
BCLL BCDL	0.0 * 10.0	Rep Stress Incr YE Code IRC2015/TPI2014	1000-00	0.22 trix-S	Horz(CT) Wind(LL)	0.01 10 0.04 11-13	n/a >999	n/a 240	Weight: 242 lb	FT = 20%

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

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

1-2,8-9: 2x6 SP No.1 2x10 SP No 1

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

1-13,9-11: 2x4 SP No.2

REACTIONS. (size) 14=0-3-8, 10=0-3-8

Max Horz 14=231(LC 9)

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

1-3=-1651/0, 3-4=-1070/149, 4-5=-25/508, 5-6=-25/508, 6-7=-1070/149, 7-9=-1650/0, TOP CHORD

1-14=-1523/0, 9-10=-1523/0 13-14=-248/390, 11-13=0/1098 **BOT CHORD** 

WEBS 4-6=-1669/227, 3-13=0/726, 7-11=0/726, 1-13=0/987, 9-11=0/991

Max Grav 14=1406(LC 21), 10=1406(LC 20)

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=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 11-0-0, Exterior(2) 11-0-0 to 15-4-13, Interior(1) 15-4-13 to 21-8-12 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.
- 5) Ceiling dead load (10.0 psf) on member(s). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s).3-13, 7-11
- 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-13
- 7) Attic room checked for L/360 deflection.



MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MTEk® connectors. This design is based only upon parameters show, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Edenton, NC 27932

Qty Ply Wellco/13 Hidden Lakes/Harnett Job Truss Truss Type E14287447 GABLE J0420-1598 C1GE Job Reference (optional) 8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:25 2020 Page 1 Comtech, Inc, Fayetteville, NC - 28314, ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-FvefIsGP62hMzwroAtWxTwMSFECQoDfazYi\_qOzRC6a 14-0-0 0-10-8 4-0-0 1-8-0

5x12 ||

Scale = 1:43.4

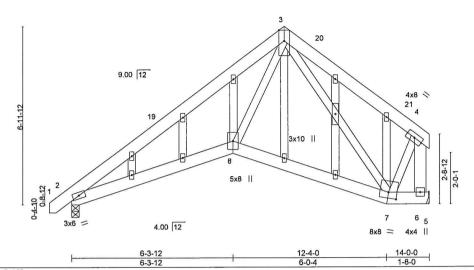


Plate Off	sets (X,Y)	[7:0-4-0,0-2-12]											
LOADING TCLL TCDL	G (psf) 20.0 10.0	SPACING- Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15	CSI. TC BC	0.32 0.22	DEFL. Vert(LL) Vert(CT)	in -0.02 -0.05	(loc) 2-8 2-8	I/defI >999 >999	L/d 360 240	PLATES MT20	GRIP 244/190	
BCLL BCDL	0.0 * 10.0	Rep Stress Incr Code IRC2015/TF	YES	WB Matri	0.40	Horz(CT) Wind(LL)	0.02 0.04	6 2-8	n/a >999	n/a 240	Weight: 130 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\*

4-6: 2x6 SP No.1

OTHERS 2x4 SP No.2

OTHERS 2X4 SP No.2

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

Max Horz 2=211(LC 12)

Max Uplift 2=-121(LC 12), 6=-100(LC 12) Max Grav 2=595(LC 1), 6=545(LC 1)

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

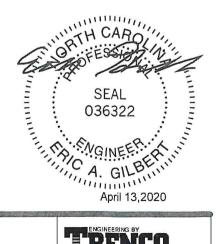
TOP CHORD 2-3=-895/163, 3-4=-294/137, 4-6=-525/120

BOT CHORD 2-8=-149/686, 7-8=-119/431 WEBS 3-8=-44/555, 4-7=-23/334, 3-7=-421/154

### NOTES-

Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-9-0 to 3-7-13, Interior(1) 3-7-13 to 8-4-0, Exterior(2) 8-4-0 to 12-8-13, Interior(1) 12-8-13 to 13-7-12 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.
- 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) Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 2 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) except (jt=lb) 2=121, 6=100.



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

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

except end verticals.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, crection and bracing of trusses and truss systems, see \_\_ANSITPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job Truss Truss Type Qty Wellco/13 Hidden Lakes/Harnett E14287448 SCISSORS J0420-1598 C2 Job Reference (optional) 8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:26 2020 Page 1 Comtech, Inc. Fayetteville, NC - 28314, ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-j5C1VCH1tLpDb4Q?kb2A?8vbdeY?Xg6kCCRXMqzRC6Z 12-4-0 14-0-0 4-0-0 1-8-0 Scale = 1:43.1 5x8 || 2 10 9.00 12 4x8 📏 4^ 11 3 5x8 || 0-8-12 6 5 4 = 4.00 12 6x6 4v4 11 12-4-0 6-0-4 [1:0-1-12,0-1-8] Plate Offsets (X,Y)--**PLATES** GRIP DEFL I /d LOADING (psf) SPACING-2-0-0 CSI. in (loc) I/defl 244/190 20.0 Plate Grip DOL 1.15 TC 0.34 Vert(LL) -0.021-7 >999 360 MT20 TCLL TCDL 10.0 Lumber DOL 1.15 BC 0.20 Vert(CT) -0.04 1-7 >999 240

0.02

0.02

Horz(CT)

Wind(LL)

BRACING-

TOP CHORD

**BOT CHORD** 

5

1-7

n/a

>999

except end verticals.

n/a

240

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

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

LUMBER-

**BCLL** 

BCDL

WEBS

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

0.0

10.0

2x4 SP No.2 \*Except\*

3-5: 2x6 SP No.1

REACTIONS.

(size) 1=0-3-8, 5=Mechanical

Rep Stress Incr

Code IRC2015/TPI2014

Max Horz 1=153(LC 9)

Max Uplift 1=-22(LC 12), 5=-26(LC 12) Max Grav 1=540(LC 1), 5=547(LC 1)

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

1-2=-890/152, 2-3=-293/137, 3-5=-528/121 TOP CHORD

1-7=-86/664, 6-7=-83/422 **BOT CHORD** 

2-7=0/555, 3-6=0/327, 2-6=-408/95 WEBS

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=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 8-4-0, Exterior(2) 8-4-0 to 12-8-13, Interior(1) 12-8-13 to 13-7-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

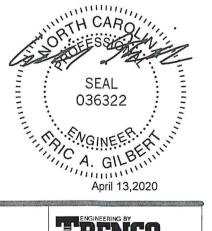
WB 0.39

Matrix-S

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

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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.



Weight: 103 lb

FT = 20%

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, rection and bracing of truss systems, see ANSI/P11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Truss Type Qty Wellco/13 Hidden Lakes/Harnett Truss Job E14287449 J0420-1598 D1 COMMON Job Reference (optional) 8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:27 2020 Page 1 Fayetteville, NC - 28314, Comtech, Inc. ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-BIIQiYlfefx4CE?BIIZPYLRmc2vcGCHtRsB4uGzRC6Y 12-8-0 Scale = 1:27.0 4x4 = 7.00 12 10 6 3x6 = 2x4 || 3x6 =

12-8-0 6-4-0 LOADING (psf) SPACING-2-0-0 CSI. DEFL I/defl L/d **PLATES** GRIP 244/190 20.0 Plate Grip DOL 1.15 TC 0.33 Vert(LL) -0.01 2-6 >999 360 MT20 TCLL BC Vert(CT) -0.03 2-6 >999 240 TCDI 10.0 Lumber DOL 1.15 0.18 WB 0.07 Horz(CT) 0.01 4 n/a n/a 0.0 Rep Stress Incr YES **BCLL** Code IRC2015/TPI2014 Weight: 60 lb FT = 20%Wind(LL) 0.01 2-6 >999 240 BCDL 10.0 Matrix-S

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

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

REACTIONS.

(size) 2=0-3-8, 4=0-3-8

Max Horz 2=-101(LC 10) Max Uplift 2=-42(LC 12), 4=-42(LC 13) Max Grav 2=556(LC 1), 4=556(LC 1)

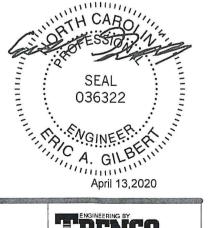
FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown.

TOP CHORD 2-3=-639/164, 3-4=-639/165 **BOT CHORD** 2-6=-16/455, 4-6=-16/455

**WEBS** 3-6=0/317

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 1) United ASCE 7-10; Vult=130mph (3-second gust) 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 6-4-0, Exterior(2) 6-4-0 to 10-8-13, Interior(1) 10-8-13 to 13-6-8 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.
- \*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.

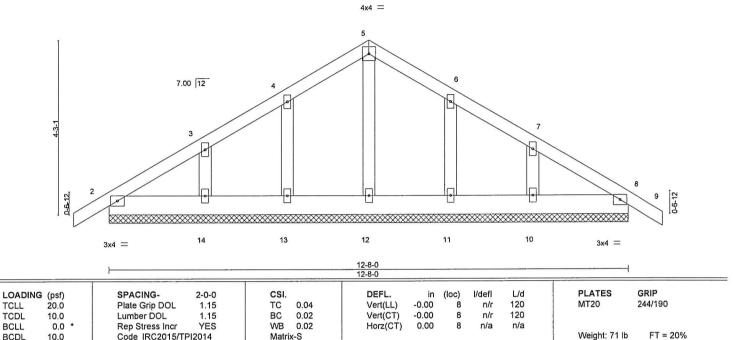
Rigid ceiling directly applied or 10-0-0 oc bracing.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job	Truss	Truss Type	Qty	Ply	Wellco/13 Hidden Lakes/Harnett	E4 4087 450
J0420-1598	D1GE	GABLE	1	1		E14287450
30420-1030	DIGE	0,1822	ľ		Job Reference (optional)	
Comtech, Inc. Favettey	rille, NC - 28314,		8.	330 s Mar	23 2020 MiTek Industries, Inc. Mon Apr 13	07:32:28 2020 Page 1
20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 -		ID:I2dIS	Wmc?rsK(	Cp8e01L4?	Rzx8kL-fUJowulHOz3wqOaNs04e5Z_0qSF	HL?gH0fWweRjzRC6X
, -0-10-8	Ĭ.	6-4-0		1.9.	12-8-0	13-6-8
0-10-8	1	6-4-0			6-4-0	0-10-8

Scale = 1:27.0



LUMBER-

TCLL

TCDI

BCLL

BCDL

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

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

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

REACTIONS. All bearings 12-8-0.

Max Horz 2=-126(LC 10) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10

Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

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

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=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 6-4-0, Corner(3) 6-4-0 to 10-8-13, Exterior(2) 10-8-13 to 13-6-8 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, 8, 13, 14, 11, 10



MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly language. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job Truss Truss Type Qty Plv Wellco/13 Hidden Lakes/Harnett E14287451 COMMON .10420-1598 D2GDR Job Reference (optional) 8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:29 2020 Page 1 Comtech, Inc. Fayetteville, NC - 28314, ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-7gtA7DJv9GBnSY9aPjbtdmX4zrWRk2aAuAgBz9zRC6W 6-4-0 12-8-0 Scale = 1:26.2 4x6 II 2 7.00 12 0-6-12 9 10 6 7 8 54x12 // 4x12 \\ 4x8 AVR = 12-8-0 4-5-4 [1:0-8-0,0-0-1], [3:0-8-0,0-0-1] Plate Offsets (X,Y)--PLATES GRIP 1 /d LOADING (psf) SPACING-CSI. DEFL in (loc) I/defl 244/190 20.0 Plate Grip DOL 1.15 TC 0.46 Vert(LL) -0.044-5 >999 360 MT20 TCLL TCDL 10.0 Lumber DOL 1.15 вс 0.47 Vert(CT) -0.08 4-5 >999 240 BCLL 0.0 Rep Stress Incr NO WB 0.34 Horz(CT) 0.02 3 n/a n/a Weight: 146 lb FT = 20% BCDL 10.0 Code IRC2015/TPI2014 Matrix-S Wind(LL) 0.03 4-5 >999 240 BRACING-LUMBER-

TOP CHORD 2x4 SP No.1 BOT CHORD 2x8 SP No.1 WEBS 2x4 SP No.2 TOP CHORD BOT CHORD Structural wood sheathing directly applied or 5-6-15 oc purlins.

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

REACTIONS.

(size) 1=0-3-8, 3=0-3-8

Max Horz 1=91(LC 24)

Max Uplift 1=-188(LC 8), 3=-230(LC 9) Max Grav 1=3191(LC 2), 3=3973(LC 2)

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

TOP CHORD 1-2=-4913/287, 2-3=-4974/290

BOT CHORD 1-5=-202/4125, 4-5=-148/2857, 3-4=-194/4178

WEBS 2-5=-113/2662, 2-4=-119/2772

### NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.

Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 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 (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60

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

- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=188, 3=230.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1049 lb down and 69 lb up at 2-0-12, 1049 lb down and 69 lb up at 4-0-12, 1049 lb down and 69 lb up at 6-0-12, 1049 lb down and 69 lb up at 8-0-12, and 1049 lb down and 69 lb up at 10-0-12, and 1054 lb down and 64 lb up at 12-0-12 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: 1-3=-20, 1-2=-60, 2-3=-60

SEAL
036322

SEAL
036322

April 13,2020

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIL-7473 rev. 10/03/2015 BEFORE USE.

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Job	Truss	Truss Type	Qty	Ply	Wellco/13 Hidden Lakes/Harnett E14287451
J0420-1598	D2GDR	соммон	1	2	Job Reference (optional)

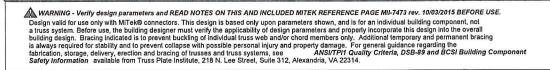
Comtech, Inc,

Fayetteville, NC - 28314,

8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:29 2020 Page 2 ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-7gtA7DJv9GBnSY9aPjbldmX4zrWRk2aAuAgBz9zRC6W

LOAD CASE(S) Standard Concentrated Loads (lb)

Vert: 5=-977(F) 6=-977(F) 7=-977(F) 8=-977(F) 9=-977(F) 10=-982(F)





Wellco/13 Hidden Lakes/Harnett Job Truss Truss Type Qty Ply E14287452 MONOPITCH J0420-1598 M1 Job Reference (optional) 8.330 s Mar 23 2020 MiTek Industries, Inc. Mon Apr 13 07:32:30 2020 Page 1 Comtech, Inc. Fayetteville, NC - 28314, ID:I2dISWmc?rsKCp8e01L4?Rzx8kL-csRYLZKXwaJe4hkmzR66A\_3I1Fv6TVUJ7pQIVbzRC6V 17-4-0 -0-10-8 0-10-8 8-8-0 8-8-0 8-8-0 Scale = 1:60.2 3x4 || 7.00 12 5 6 4x6 / 3x6 / 046 06-12 1 1 8 7 9 10 3x4 = 4x6 = 4x6 = 2x4 II 17-4-0 8-8-0 8-8-0 **PLATES** GRIP DEFL I/defl L/d LOADING (psf) SPACING-2-0-0 CSI in (loc) TC BC MT20 244/190 -0.03 >999 360 TCLL 20.0 Plate Grip DOL 1.15 0.32 Vert(LL) 2-10 >999 240 TCDL 10.0 Lumber DOL 1.15 0.25 Vert(CT) -0.07 2-10 BCLL 0.0 Rep Stress Incr YES WB 0.36 Horz(CT) 0.01 8 n/a n/a FT = 20% Wind(LL) 240 Weight: 133 lb Code IRC2015/TPI2014 0.03 2-10 >999 BCDL 10.0 Matrix-S BRACING-

TOP CHORD

**BOT CHORD** 

WEBS

LUMBER-

REACTIONS.

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

5-8: 2x6 SP No.1

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

Max Horz 2=340(LC 12) Max Uplift 8=-172(LC 12)

Max Grav 8=740(LC 19), 2=727(LC 1)

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

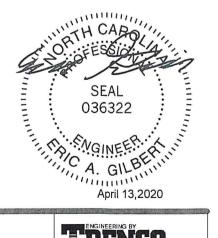
TOP CHORD 2-3=-893/0

BOT CHORD 2-10=-229/760, 8-10=-229/760

3-10=0/396, 3-8=-871/261 WEBS

### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-13 to 3-8-0, Interior(1) 3-8-0 to 17-4-0 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 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)



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

5-8, 3-8

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

except end verticals.

1 Row at midpt

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



Job	Truss	Truss T	уре		Qty	Ply	Wellco/13 Hidden La	kes/Harnett	E14287453
J0420-1598	M1GE	GABLE			1	1	Job Reference (option	nal)	21 1207 100
Comtech, Inc, Fay	yetteville, NC - 28314,				8. IISWmc?r	330 s Mar sKCp8e0	23 2020 MiTek Indus	tries, Inc. Mon Apr 13	3 07:32:31 2020 Page 1 SjfluC?3TMT9I11zRC6U
	9	0-10-8 0-10-8		17-4-0 17-4-0					
						7.00 12	11 12		Scale = 1:59.9
	Ī						3x4    10		
					4x6 🖊	9			
				6 /	78				
	10-8-1			5					
			4						
			3						
	42	12		8 8					
	0.4±6 0.6±12		******	************	XXXXXX	××××××	***************************************		
		3x4 =	21 20	19 18	17	16 4	15 14 13 x6 = 3x4		
		<b>—</b>		17-4-0 17-4-0					
LOADING (psf) TCLL 20.0	SPACING- Plate Grip DOL	2-0-0 1.15	CSI. TC 0.06	DEFL. Vert(LL)	-0.00		l/defl L/d n/r 120 n/r 120	PLATES MT20	GRIP 244/190

LUMBER-

BCLL

BCDL

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

0.0 \*

10.0

WEBS 2x6 SP No.1 **OTHERS** 2x4 SP No.2 BRACING-

Horz(CT) -0.01

12

n/a

n/a

TOP CHORD

**BOT CHORD** WERS

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

Weight: 166 lb

FT = 20%

2x4 SPF No.2 - 11-13, 10-14 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 17-4-0.

(lb) - Max Horz 2=491(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 12, 13, 14, 16, 17, 18, 19, 20 except 21=-133(LC 12) Max Grav All reactions 250 lb or less at joint(s) 12, 13, 2, 14, 16, 17, 18, 19, 20 except 21=285(LC 19)

WB 0.15

Matrix-S

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-3=-512/415, 3-4=-410/321, 4-5=-354/283, 5-6=-290/232 TOP CHORD

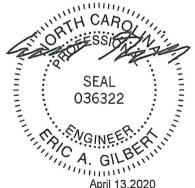
Rep Stress Incr

Code IRC2015/TPI2014

YES

### NOTES-

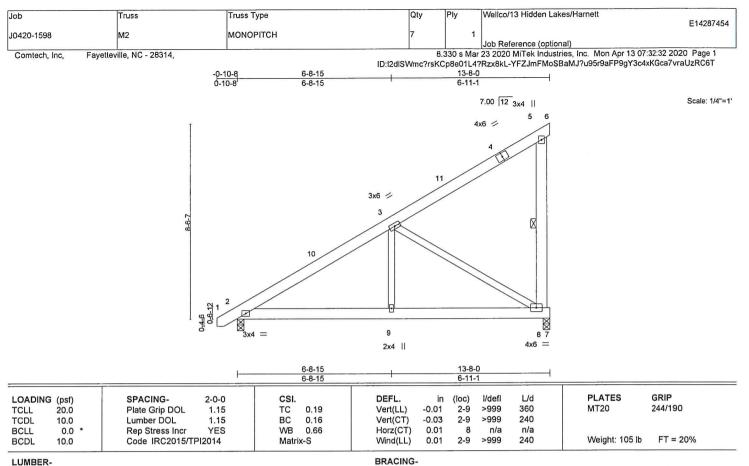
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-13 to 3-8-0, Exterior(2) 3-8-0 to 17-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate 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.
- 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) 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 13, 14, 16, 17, 18, 19, 20 except (jt=lb) 21=133.
- 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



April 13,2020

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MTEk® 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 ucclings with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





TOP CHORD

**BOT CHORD** 

**WEBS** 

LUMBER-

REACTIONS.

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

2x4 SP No.2 \*Except\* WEBS

5-8: 2x6 SP No.1

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

Max Horz 2=270(LC 12) Max Uplift 8=-136(LC 12)

Max Grav 8=585(LC 19), 2=581(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-3=-694/0 TOP CHORD

BOT CHORD 2-9=-198/599, 8-9=-198/599

3-9=0/306, 3-8=-683/224 WEBS

### NOTES-

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-13 to 3-8-0, Interior(1) 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=136.



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

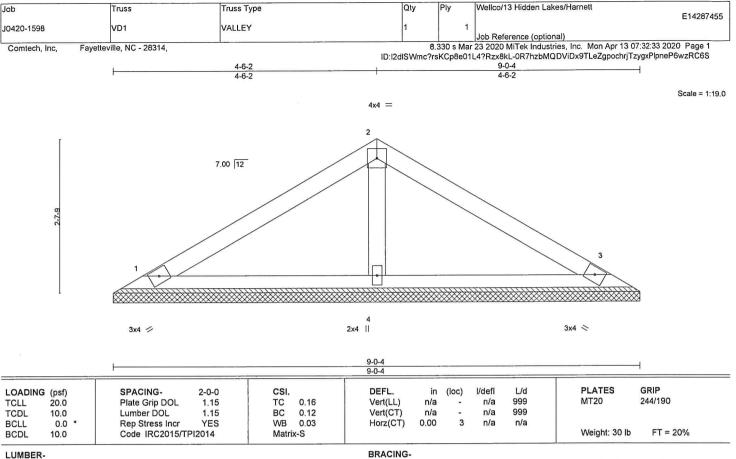
Rigid ceiling directly applied or 10-0-0 oc bracing

except end verticals.

1 Row at midpt

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





TOP CHORD

**BOT CHORD** 

LUMBER-

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

**OTHERS** 2x4 SP No.2

REACTIONS. (size) 1=9-0-4, 3=9-0-4, 4=9-0-4

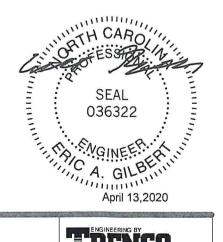
Max Horz 1=-56(LC 8)

Max Uplift 1=-20(LC 12), 3=-25(LC 13)

Max Grav 1=151(LC 1), 3=151(LC 1), 4=333(LC 1)

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=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
- 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.

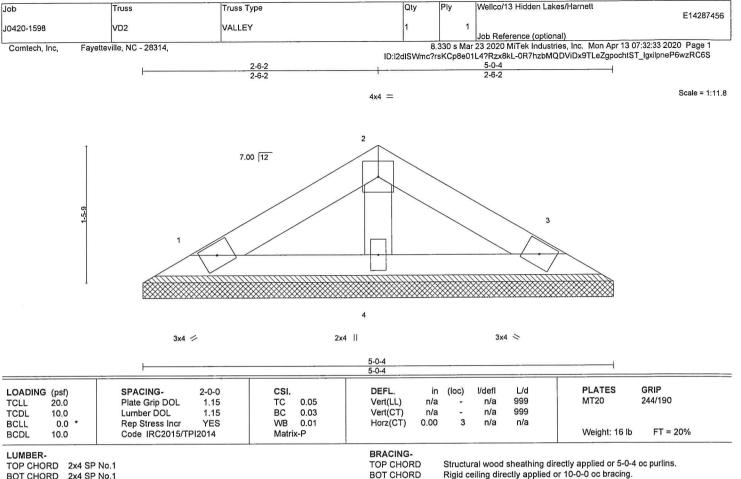


Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANS/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





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

REACTIONS. (size) 1=5-0-4, 3=5-0-4, 4=5-0-4

Max Horz 1=-28(LC 8)

Max Uplift 1=-13(LC 12), 3=-16(LC 13)

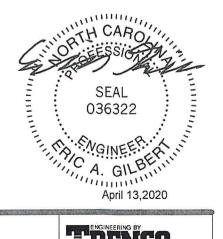
Max Grav 1=83(LC 1), 3=83(LC 1), 4=150(LC 1)

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 (3-second gust) 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.
- \*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.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters and properly incorporate this design in the coveral a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

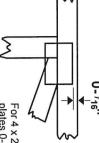


## Symbols

# 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 20/20 software or upon request.

### PLATE SIZE



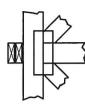
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

# LATERAL BRACING LOCATION



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

### BEARING



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

## Industry Standards:

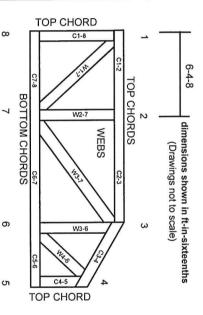
ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.

DSB-89: Design Standard for Bracing.

DSB-89: Do

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

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

# **General Safety Notes**

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

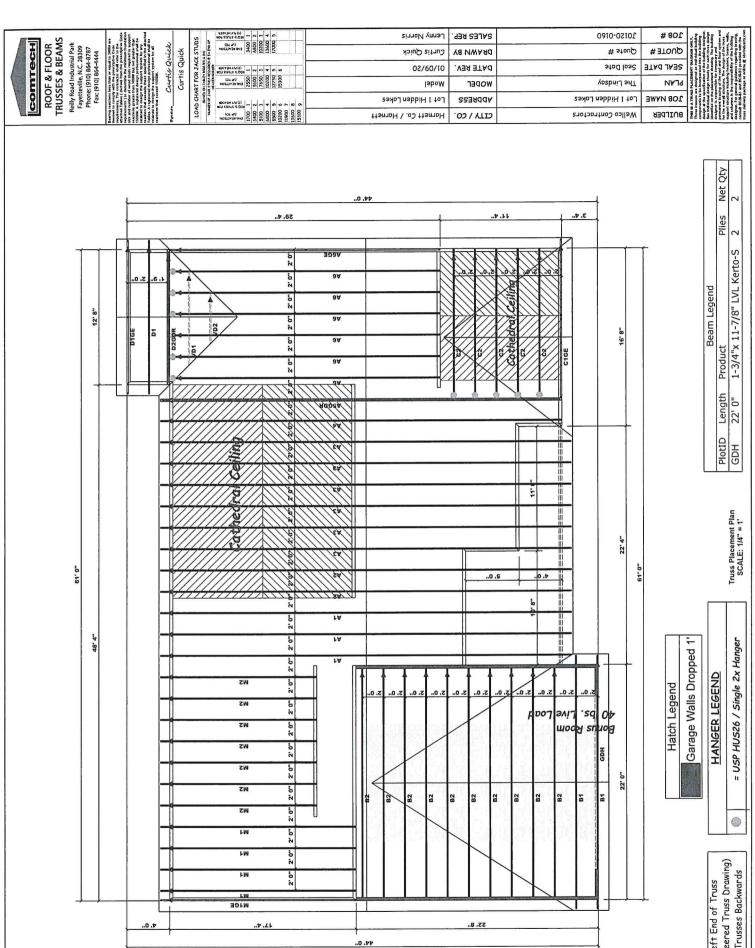
- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.

4

- 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.

6

- 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.
- Unless expressly noted, this design is not applicable for use with fire relardant, 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.
- 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.



E Denotes Left End of Truss
 (Reference Engineered Truss brawing)
 Do Not Erect Trusses Backwards

