

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

Re: J0820-3988 Precision/Lot 49 Summerlin/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: E14993224 thru E14993246

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

North Carolina COA: C-0844



October 19,2020

# 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.



WARNING - Verify design parameters and READ NOILSS ON THIS AND INCLUDED MILES ARE REFERENCE FAGE MILLARS STATES AND INCLUDED MILES AND INCLUDED MILES ARE REFORMED AND INCLUDED MILES AN

#### 818 Soundside Road Edenton, NC 27932



- BOT CHORD 2-13=-158/1869, 10-13=0/1225, 8-10=-168/1680
- WEBS 5-10=-173/1035, 7-10=-526/320, 5-13=-173/1035, 3-13=-526/320

#### 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 16-6-0, Exterior(2) 16-6-0 to 20-10-13, Interior(1) 20-10-13 to 34-0-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.



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LUMBER- TOP CHORD BOT CHORD	2x6 SP No.1 2x6 SP No.1	BRACING- TOP CHORD	Structural wood sheathing o except end verticals.	lirectly applied or 6-0-0 oc purlins,
WEBS	2x4 SP No.2 *Except*	BOT CHORD	Rigid ceiling directly applied	or 10-0-0 oc bracing.
	9-11: 2x6 SP No.1, 5-16: 2x8 SP No.1	WEBS	1 Row at midpt	9-11
OTHERS	2x4 SP No.2		T-Brace:	2x4 SPF No.2 - 11-15
			Fasten (2X) T and I braces	to narrow edge of web with 10d
			(0.131"x3") nails, 6in o.c.,wi	th 3in minimum end distance.
			Brace must cover 90% of w	eb length.
		JOINTS	1 Brace at Jt(s): 15, 18	
REACTIONS.	(size) 2=0-3-8, 11=0-3-8			

Max Uplift 2=-159(LC 12), 11=-256(LC 12) Max Grav 2=1049(LC 19), 11=1105(LC 19)

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

TOP CHORD 2-3=-1193/182, 3-5=-1052/288, 5-6=-280/181, 9-16=-256/35

BOT CHORD 2-13=-412/1048, 11-13=-119/347

Max Horz 2=464(LC 12)

WEBS 13-14=-257/1083, 3-13=-510/401, 11-15=-812/318, 5-14=-788/304, 14-15=-751/282, 6-14=-168/306

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

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

4) Gable studs spaced at 2-0-0 oc.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, 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) 2=159, 11=256.
- 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



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TOP CHORD

BOT CHORD

WEBS

	11	M	R	F	R.
_	v		ບ	_	11-

TOP CHORD	2x6 SP No. <sup>2</sup>
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1
OTHERS	2x4 SP No.2

Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing. 2x4 SPF No.2 - 11-19, 10-21, 12-18 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 21-5-8

(lb) -Max Horz 2=409(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 15, 21, 22, 23, 24, 25, 26, 18, 17, 16 except 2=-123(LC 10), 27=-150(LC 12)

All reactions 250 lb or less at joint(s) 19, 21, 22, 23, 24, 25, 26, 27, 18, 17, 16 except 2=274(LC Max Grav 12)

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

TOP CHORD 2-3=-488/317, 3-4=-376/250, 4-5=-296/219

## 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) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 21, 22, 23, 24, 25, 26, 18, 17, 16 except (jt=lb) 2=123, 27=150.
- 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.





🙏 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. WARNING - Verify design parameters and HEAD NOTES ON THIS AND INCLOSE MITER REFERENCE FACE miniformer and the second seco Annoving Storage, delivery, erection and bracing of trusses and truss systems, see **ANSVTPH Qu** Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



BRACING-

WFBS

TOP CHORD

BOT CHORD

T-Brace:

WEBS 2x4 SP No.2 \*Except\* 2-13,6-9: 2x6 SP No.1

2x6 SP No.1

2x6 SP 2400F 2 0F

CTIONS.	(size)	13=0-3-8, 9=0-3-8
	Max Horz	13=-158(LC 6)
	Max Uplift	13=-522(LC 4), 9=-521(LC 5)
	Max Grav	13=5156( C,2) $9=5089( C,2)$

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-13=-4055/457, 2-3=-4523/480, 3-5=-4523/480

BOT CHORD 10-12=-458/4497, 9-10=-458/4497

WEBS 2-12=-581/5805, 3-12=-367/173, 5-10=-232/3494, 5-9=-5771/588

NOTES-

LUMBER-

REAC

TOP CHORD

BOT CHORD

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc. Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc. Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) 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); end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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) 13=522, 9=521.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 980 lb down and 100 lb up at 2-1-4, 980 lb down and 100 lb up at 4-1-4, 980 lb down and 100 lb up at 6-1-4, 980 lb down and 100 lb up at 8-1-4, 980 lb down and 100 lb up at 10-1-4, 980 lb down and 100 lb up at 12-1-4, 980 lb down and 100 lb up at 14-1-4, and 980 lb down and 100 lb up at 16-1-4, and 980 lb down and 100 lb up at 18-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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

# LOAD CASE(S) Standard

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2-0-0 oc purlins (6-0-0 max.): 1-7, except end verticals.

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.

2x6 SPF No.2 - 5-9

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

Brace must cover 90% of web length.



Job	Truss	Truss Type	Qty	Ply	Precision/Lot 49 Summerlin/Harnett
					E14993229
J0820-3988	B1	FLAT GIRDER	1	2	
				<b>_</b>	Job Reference (optional)
Comtech, Inc. Fa	avetteville, NC - 28314.		8	3.330 s Oct	t 7 2020 MiTek Industries, Inc. Mon Oct 19 11:03:41 2020 Page 2

ID:TBflsx8xnbQ8q?qAEUg6cKzS70A-nFXV8XUV97jJexChpT?YJcFci43vd4KbWbV7AfyRt0W

# LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 8-14=-20, 1-2=-60, 2-6=-60, 6-7=-60

Concentrated Loads (lb)

Vert: 11=-823(F) 15=-823(F) 16=-823(F) 17=-823(F) 18=-823(F) 19=-823(F) 20=-823(F) 21=-823(F) 22=-823(F)

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Design valid for use only design parameters and READ NOTES ON TIPS ON TIPS ON TIPS AND INCLODED MITER REFERENCE PAGE MIT 14/3 TeV. 5/ 9/2/20 BEFORE DSE. Design valid for use only with MITeK with with Key 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/TPI f Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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Job		Truss	Truss Type	Qty	Ply	Precision/Lot 49 Summerlin/Harnett	
						E14993	3230
J0820-3988		B2	FLAT GIRDER	1	2		
					<b>Z</b>	Job Reference (optional)	
Comtech, Inc,	Fayettev	ille, NC - 28314,		8	3.330 s Oo	t 7 2020 MiTek Industries, Inc. Mon Oct 19 11:03:43 2020 Page 2	2
	-		ID:TBfl	sx8xnbQ8q	?qAEUg6	cKzS70A-kdeGZDVmhkz1tFM3wu10O1L0vtkS5?Muzv EEXyRt0U	j –

## LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-6=-60, 7-12=-20

Concentrated Loads (lb)

Vert: 11=-758(B) 8=-758(B) 13=-441(F) 14=-441(F) 15=-758(B) 16=-758(B) 17=-758(B) 18=-758(B) 19=-399(B) 20=-399(B)

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⊢	6-0-0						
Plate Offsets (X V)	6-0-0 [2:0-2-0 Edge] [8:0-2-0 Edge]				6-0-0		·
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0 *           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014	<b>CSI.</b> TC 0.23 BC 0.36 WB 0.07 Matrix-S	DEFL.         i           Vert(LL)         -0.04           Vert(CT)         -0.01           Horz(CT)         0.01           Wind(LL)         0.01	n (loc) l/defl 4 10-11 >999 7 10-11 >999 1 8 n/a 7 10-11 >999	L/d 360 240 n/a 240	PLATES MT20 Weight: 53 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 2x4 SF OTHERS 2x4 SF REACTIONS. (siz Max H Max U Max G	P No.1 P No.1 P No.2 P No.2		BRACING- TOP CHORD BOT CHORD	Structural wood Rigid ceiling dire	sheathing dire	ectly applied or 6-0-0 r 7-7-3 oc bracing.	oc purlins.
FORCES.         (lb) - Max.           TOP CHORD         2-3=-           BOT CHORD         2-14:           8-10:         8-10:           WEBS         5-12:	Comp./Max. Ten All forces 250 (lb) or -686/759, 3-4=-636/758, 4-5=-621/790, 5 =-586/566, 13-14=-586/566, 12-13=-586/ =-586/566 =-417/273	less except when shown. -6=-621/790, 6-7=-636/75 566, 11-12=-586/566, 10-	58, 7-8=-686/759 -11=-586/566,				
NOTES- 1) Unbalanced roof live 2) Wind: ASCE 7-10; V MWFRS (envelope) for reactions shown; 3) Truss designed for v Gable End Details a	e loads have been considered for this dea /ult=130mph (3-second gust) Vasd=103n gable end zone and C-C Exterior(2) zon Lumber DOL=1.60 plate grip DOL=1.60 vind loads in the plane of the truss only. s applicable, or consult qualified building	sign. nph; TCDL=6.0psf; BCDL e; porch left and right exp For studs exposed to win designer as per ANSI/TF	=6.0psf; h=15ft; Cat. II; iosed;C-C for members id (normal to the face), Pl 1.	Exp C; Enclosed; and forces & MW see Standard Indu	FRS stry		

- applicable, or consu 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=178, 8=178.



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F			<u> </u>								
Plate Offsets (X,Y)	[2:0-2-0,Edge], [4:0-2-0,E	Edge]									
<b>_OADING</b> (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
rcll 20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.03	<b>4</b> -6	>999	360	MT20	244/190
CDL 10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.06	4-6	>999	240		
CLL 0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	4	n/a	n/a		
CDL 10.0	Code IRC2015/T	PI2014	Matriz	k-S	Wind(LL)	0.08	4-6	>999	240	Weight: 46 lb	FT = 20%
UMBER-			1		BRACING-						
FOP CHORD 2x4 S	SP No 1				TOP CHOP	20	Structu	ral wood	sheathing di	rectly applied or 6-0-0	oc purlins

BOT CHORD

Rigid ceiling directly applied or 8-2-0 oc bracing.

TOP CHORD2x4 SP No.1BOT CHORD2x4 SP No.1WEBS2x4 SP No.2

REACTIONS. (size) 2=0-3-0, 4=0-3-0 Max Horz 2=-40(LC 13) Max Uplift 2=-131(LC 8), 4=-131(LC 9) Max Grav 2=550(LC 1), 4=550(LC 1)

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

 TOP CHORD
 2-3=-685/721, 3-4=-685/721

 BOT CHORD
 2-6=-537/551, 4-6=-537/551

WEBS 3-6=-361/283

# 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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 6-0-0, Exterior(2) 6-0-0 to 10-4-13, Interior(1) 10-4-13 to 13-2-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=131, 4=131.



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LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.01	8	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	7	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TF	PI2014	Matri	x-S						Weight: 88 lb	FT = 20%

#### LUMBER-

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

BRACING-TOP CHORD

BOT CHORD

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

**REACTIONS.** All bearings 9-3-8.

(lb) - Max Horz 2=373(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 11, 12 except 9=-211(LC 12), 13=-144(LC 12) Max Grav All reactions 250 lb or less at joint(s) 2, 10, 11, 12, 13 except 9=295(LC 19)

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

TOP CHORD 2-3=-523/373, 3-4=-411/288, 4-5=-328/220, 6-7=-252/151, 7-9=-313/397

#### NOTES-

- 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) 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 11, 12 except (jt=lb) 9=211, 13=144.



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						6-0-8	1					
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/T	PI2014	Matri	k-S	Wind(LL)	0.01	5-6	>999	240	Weight: 50 lb	FT = 20%

BRACING-

TOP CHORD

BOT CHORD

# LUMBER-

TOP CHORD2x6 SP No.1BOT CHORD2x6 SP No.1WEBS2x6 SP No.1

REACTIONS. (size) 6=0-3-8, 5=Mechanical Max Horz 6=163(LC 12)

Max Uplift 5=-191(LC 9) Max Grav 6=196(LC 21), 5=441(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-322/219

WEBS 2-5=-447/490

#### NOTES-

- 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) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 8-3-8 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) 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) 5=191.



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

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

except end verticals.

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TCLL 20.0 Plate Grip DC TCDL 10.0 Lumber DOL BCLL 0.0 * Rep Stress In	L 1.15 1.15 cr YES	TC 0 BC 0 WB 0	).17 ).10 ).08	Vert(LL) Vert(CT) Horz(CT)	0.01 0.00 0.00	5 5	n/r n/r n/a	120 120 n/a	MT20	244/190
BCDL 10.0 Code IRC20	5/TPI2014	Matrix-P	0						Weight: 58 lb	FT = 20%

TOP CHORD	2x6
DOT OULO DD	~

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		except end verticals.
WEBS OTHERS	2x6 SP No.1 2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 6-0-8.

(lb) -Max Horz 10=240(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 10, 6, 8 except 9=-326(LC 12), 7=-269(LC 12) Max Grav All reactions 250 lb or less at joint(s) 6, 8 except 10=316(LC 12), 9=256(LC 19), 7=379(LC 19)

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

1-10=-270/147, 1-2=-412/271, 2-3=-251/150, 3-4=-310/185 2-9=-254/268, 4-7=-386/507 TOP CHORD

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) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 6, 8 except (jt=lb) 9=326, 7=269.



818 Soundside Road Edenton, NC 27932





	⊢	-	7-1-6			9-3-8			19-3	3-8		
Plate Offset	ts (X,Y)	[2:0-0-6,0-1-3]	-1-0			2-2-2			10-0	5-0		
	(psf)	SPACING-	2-0-0	CSI.	0.21	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.16 18-19	>999	240	101120	244/130	

BCLL 0. BCDL 10.	.0 * .0	Rep Stress Incr YES Code IRC2015/TPI2014	WB 0.25 Matrix-S	Horz(CT) 0.03 Wind(LL) 0.09	3 15 n/a n/a 9 18 >999 240	Weight: 145 lb	FT = 20%
LUMBER- TOP CHORD	2x6 SP	No.1		BRACING- TOP CHORD	Structural wood sheathing di	rectly applied or 5-9-12 c	oc purlins,
BOT CHORD	2x6 SP	No.1			except end verticals.		
WEBS	2x4 SP	No.2 *Except*		BOT CHORD	Rigid ceiling directly applied	or 9-8-5 oc bracing.	
	12-15: 2	2x6 SP No.1		WEBS	1 Row at midpt 1	5-26	
OTHERS	2x4 SP	No.2		JOINTS	1 Brace at Jt(s): 26, 27		

REACTIONS. (size) 15=Mechanical, 2=0-3-8 Max Horz 2=236(LC 8) Max Uplift 15=-251(LC 12), 2=-238(LC 8) Max Grav 15=778(LC 1), 2=816(LC 1)

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

TOP CHORD 2-3=-1744/443, 3-4=-1682/466, 4-5=-1666/484, 5-6=-1642/503

 BOT CHORD
 2-23=-642/1617, 22-23=-642/1617, 21-22=-642/1617, 20-21=-642/1617, 19-20=-642/1617, 18-19=-642/1617, 15-16=-642/1617

 WEBS
 6-20=-106/362, 6-27=-1611/641, 26-27=-1576/627, 25-26=-1580/630, 24-25=-1587/631,

## NOTES-

- 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) 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.

15-24=-1621/646

- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=251, 2=238.

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	<u>−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−</u>	5 S	9-3-8	+			<u>19-3-8</u> 10-0-0		
Plate Offsets (X,Y)-	- [2:0-0-2,0-1-3]								
LOADING (psf)	SPACING- 2	2-0-0 <b>CSI</b> .	DE	FL. in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15 TC 0	.35 Ver	t(LL) -0.07	2-1Ó	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15 BC 0	.36 Ver	t(CT) -0.16	2-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES WB 0	.72 Hoi	rz(CT) 0.03	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI20	014 Matrix-S	Wir	nd(LL) 0.06	2-10	>999	240	Weight: 122 lb	FT = 20%
LUMBER-		ŀ	BR	ACING-					

LOWDEN		BIIAOING	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 5-5-8 oc purlins,
BOT CHORD	2x6 SP No.1		except end verticals.
WEBS	2x4 SP No.2 *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
	5-8: 2x6 SP No.1	WEBS	1 Row at midpt 3-8

REACTIONS. (size) 8=Mechanical, 2=0-3-8 Max Horz 2=165(LC 8) Max Uplift 8=-103(LC 12), 2=-98(LC 8) Max Grav 8=778(LC 1), 2=816(LC 1)

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

TOP CHORD 2-3=-1758/239, 5-8=-268/189

BOT CHORD 2-10=-383/1636, 8-10=-383/1636

WEBS 3-10=0/418, 3-8=-1601/364

## NOTES-

 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) -0-10-15 to 3-5-14, Interior(1) 3-5-14 to 19-3-8 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) 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) 2 except (jt=lb) 8=103.



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LOADING         (ps           TCLL         20.           TCDL         10.           BCLL         0.           BCDL         10.	sf) .0 .0 .0 * .0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2015/TP	2-0-0 1.15 1.15 YES I2014	<b>CSI.</b> TC BC WB Matrix	0.07 0.02 0.03 x-P	<b>DEFL.</b> Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 1 1	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20 Weight: 24 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS	2x4 SP No 2x6 SP No 2x6 SP No	0.1 0.1 0.1				BRACING- TOP CHOR BOT CHOR	D	Structur except Rigid ce	ral wood end vertie eiling dire	sheathing di cals. ctly applied	rectly applied or 5-0-0 or 10-0-0 oc bracing.	oc purlins,

2x4 SP No.2 OTHERS

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

Max Horz 2=73(LC 8)

Max Uplift 5=-17(LC 8), 2=-92(LC 8), 6=-71(LC 12) Max Grav 5=40(LC 1), 2=189(LC 1), 6=225(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 (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) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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 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) 5, 2, 6.



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Plate Offsets (X,Y)-	[2:0-2-14,0-0-6]	1 1					
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           PCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IPC/2015//TPI/2014	CSI. TC 0.26 BC 0.08 WB 0.00 Matrix B	DEFL.         in           Vert(LL)         -0.07           Vert(CT)         -0.07           Horz(CT)         0.00           Wind(LL)         0.07	n (loc) 2-4 2-4	l/defl L/d >999 360 >999 240 n/a n/a	PLATES MT20	<b>GRIP</b> 244/190
LUMBER- TOP CHORD 2x4 BOT CHORD 2x6	SP No.1 SP No.1	IVIAU IX-F	BRACING- TOP CHORD	Structu	ral wood sheat	hing directly applied or 5-0-0	oc purlins,

TOP CHORD2x4 SP No.1TOP CHORDStructural wood sheathing directly applied or 5-0-0 oc purlins,<br/>except end verticals.BOT CHORD2x6 SP No.1BOT CHORDBOT CHORDRigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-1-8 Max Horz 2=51(LC 8) Max Uplift 2=-121(LC 8), 4=-71(LC 8) Max Grav 2=277(LC 1), 4=174(LC 1)

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

### NOTES-

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-9-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 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.



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TOP CHORD

BOT CHORD

WEBS

## LUMBER-

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

Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing. 2x4 SPF No.2 - 7-20 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 25-11-15.

(lb) -Max Horz 1=-264(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 13, 21, 22, 23, 24, 19, 17, 16, 15 except 25=-123(LC 12), 14=-122(LC 13) Max Grav All reactions 250 lb or less at joint(s) 1, 13, 20, 21, 22, 23, 24, 25, 19, 17, 16, 15, 14

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

TOP CHORD 1-2=-284/195

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

3) All plates are 2x4 MT20 unless otherwise indicated.

4) Gable requires continuous bottom chord bearing.

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

6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide

will fit between the bottom chord and any other members.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 13, 21, 22, 23, 24, 19, 17, 16, 15 except (jt=lb) 25=123, 14=122.

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



818 Soundside Road Edenton, NC 27932

🙏 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only design parameters and READ NOTES ON TIRS AND INCLODED MITER REFERENCE PAGE mit-14/3 rev. 5/ 9/2/20 BEFORE DSE. Design valid for use only with MITeK we 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 dmage. 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** Sahrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANS/TPH Qu** Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



- 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) 0-7-12 to 5-0-9, Interior(1) 5-0-9 to 11-1-6, Exterior(2) 11-1-6 to 15-6-3, Interior(1) 15-6-3 to 21-7-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 21-7-0 Zone; C-C for members and forces & MVVFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=
   3) All plates are 2x4 MT20 unless otherwise indicated.
- All plates are 2x4 wir20 unless otherwise indicate
   Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 13, 8 except (jt=lb) 12=113, 9=112.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPTI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





#### 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) 0-5-8 to 4-10-5, Interior(1) 4-10-5 to 9-2-13, Exterior(2) 9-2-13 to 13-7-9, Interior(1) 13-7-9 to 18-0-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

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

5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=136, 6=136.



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#### NOTES-

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) 0-5-8 to 4-10-5, Interior(1) 4-10-5 to 7-4-3, Exterior(2) 7-4-3 to 11-9-0, Interior(1) 11-9-0 to 14-2-14 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=107, 6=107.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPTI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



<sup>1)</sup> Unbalanced roof live loads have been considered for this design.



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) 0-5-8 to 4-10-5, Interior(1) 4-10-5 to 5-5-10, Exterior(2) 5-5-10 to 9-10-7, Interior(1) 9-10-7 to 10-5-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

6) Non Standard bearing condition. Review required.



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

4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

6) Non Standard bearing condition. Review required.



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A MiTek Affilia 818 Soundside Road Edenton, NC 27932



2x4 🥢

2x4 📎

Plate Offsets (X,Y) [	2:0-2-0,Edge]		3-4-14			
L <b>OADING</b> (psf) TCLL 20.0 TCDL 10.0 3CLL 0.0 * 3CDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2015/TPI2014	<b>CSI.</b> TC 0.02 BC 0.05 WB 0.00 Matrix-P	<b>DEFL.</b> in (loc) l/defl Vert(LL) n/a - n/a Vert(CT) n/a - n/a Horz(CT) 0.00 3 n/a	L/d 999 999 n/a	<b>PLATES</b> MT20 Weight: 10 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- FOP CHORD 2x4 SP 3OT CHORD 2x4 SP	No.1 No.1		BRACING- TOP CHORD Structural woo BOT CHORD Rigid ceiling d	od sheathing directive applied or	ctly applied or 3-4-1 10-0-0 oc bracing.	4 oc purlins.

3-4-14

REACTIONS. (size) 1=3-4-14, 3=3-4-14

Max Horz 1=-21(LC 10) Max Uplift 1=-5(LC 12), 3=-5(LC 13) Max Grav 1=100(LC 1), 3=100(LC 1)

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

## NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

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

5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

![](_page_25_Picture_14.jpeg)

818 Soundside Road Edenton, NC 27932

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![](_page_26_Figure_0.jpeg)

![](_page_27_Picture_0.jpeg)

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

Re: J0820-3988 Precision/Lot 49 Summerlin/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: E14993224 thru E14993246

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

North Carolina COA: C-0844

![](_page_27_Picture_7.jpeg)

October 19,2020

# 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.

![](_page_28_Figure_0.jpeg)

WARNING - Verify design parameters and READ NOILSS ON THIS AND INCLUDED MILES ARE REFERENCE FAGE MILLARS STATES AND INCLUDED MILES AND INCLUDED MILES ARE REFORMED AND INCLUDED MILES AN

#### 818 Soundside Road Edenton, NC 27932

![](_page_29_Figure_0.jpeg)

- BOT CHORD 2-13=-158/1869, 10-13=0/1225, 8-10=-168/1680
- WEBS 5-10=-173/1035, 7-10=-526/320, 5-13=-173/1035, 3-13=-526/320

#### 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 16-6-0, Exterior(2) 16-6-0 to 20-10-13, Interior(1) 20-10-13 to 34-0-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.

![](_page_29_Picture_9.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPTI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_29_Picture_11.jpeg)

![](_page_30_Figure_0.jpeg)

LUMBER- TOP CHORD BOT CHORD	2x6 SP No.1 2x6 SP No.1	BRACING- TOP CHORD	Structural wood sheathing o except end verticals.	lirectly applied or 6-0-0 oc purlins,	
WEBS	2x4 SP No.2 *Except*	BOT CHORD	D Rigid ceiling directly applied or 10-0-0 oc bracing.		
	9-11: 2x6 SP No.1, 5-16: 2x8 SP No.1	WEBS	1 Row at midpt	9-11	
OTHERS	2x4 SP No.2		T-Brace:	2x4 SPF No.2 - 11-15	
			Fasten (2X) T and I braces	to narrow edge of web with 10d	
			(0.131"x3") nails, 6in o.c.,wi	th 3in minimum end distance.	
			Brace must cover 90% of w	eb length.	
		JOINTS	1 Brace at Jt(s): 15, 18		
REACTIONS.	(size) 2=0-3-8, 11=0-3-8				

Max Uplift 2=-159(LC 12), 11=-256(LC 12) Max Grav 2=1049(LC 19), 11=1105(LC 19)

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

TOP CHORD 2-3=-1193/182, 3-5=-1052/288, 5-6=-280/181, 9-16=-256/35

BOT CHORD 2-13=-412/1048, 11-13=-119/347

Max Horz 2=464(LC 12)

WEBS 13-14=-257/1083, 3-13=-510/401, 11-15=-812/318, 5-14=-788/304, 14-15=-751/282, 6-14=-168/306

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

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

4) Gable studs spaced at 2-0-0 oc.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, 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) 2=159, 11=256.
- 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

![](_page_30_Figure_16.jpeg)

818 Soundside Road Edenton, NC 27932

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_31_Figure_0.jpeg)

![](_page_31_Picture_1.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPTI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_31_Picture_3.jpeg)

![](_page_32_Figure_0.jpeg)

TOP CHORD

BOT CHORD

WEBS

	11	M	R	F	R.
_	v		ບ	_	11-

TOP CHORD	2x6 SP No. <sup>2</sup>
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1
OTHERS	2x4 SP No.2

Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing. 2x4 SPF No.2 - 11-19, 10-21, 12-18 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 21-5-8

(lb) -Max Horz 2=409(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 15, 21, 22, 23, 24, 25, 26, 18, 17, 16 except 2=-123(LC 10), 27=-150(LC 12)

All reactions 250 lb or less at joint(s) 19, 21, 22, 23, 24, 25, 26, 27, 18, 17, 16 except 2=274(LC Max Grav 12)

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

TOP CHORD 2-3=-488/317, 3-4=-376/250, 4-5=-296/219

## 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) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 21, 22, 23, 24, 25, 26, 18, 17, 16 except (jt=lb) 2=123, 27=150.
- 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

![](_page_32_Picture_21.jpeg)

![](_page_32_Picture_22.jpeg)

🙏 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. WARNING - Verify design parameters and HEAD NOTES ON THIS AND INCLOSE MITER REFERENCE FACE miniformer and the second seco Annoving Storage, delivery, erection and bracing of trusses and truss systems, see **ANSVTPH Qu** Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_33_Figure_0.jpeg)

BRACING-

WFBS

TOP CHORD

BOT CHORD

T-Brace:

WEBS 2x4 SP No.2 \*Except\* 2-13,6-9: 2x6 SP No.1

2x6 SP No.1

2x6 SP 2400F 2 0F

CTIONS.	(size)	13=0-3-8, 9=0-3-8
	Max Horz	13=-158(LC 6)
	Max Uplift	13=-522(LC 4), 9=-521(LC 5)
	Max Grav	13=5156( C,2) $9=5089( C,2)$

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-13=-4055/457, 2-3=-4523/480, 3-5=-4523/480

BOT CHORD 10-12=-458/4497, 9-10=-458/4497

WEBS 2-12=-581/5805, 3-12=-367/173, 5-10=-232/3494, 5-9=-5771/588

NOTES-

LUMBER-

REAC

TOP CHORD

BOT CHORD

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc. Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc. Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) 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); end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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) 13=522, 9=521.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 980 lb down and 100 lb up at 2-1-4, 980 lb down and 100 lb up at 4-1-4, 980 lb down and 100 lb up at 6-1-4, 980 lb down and 100 lb up at 8-1-4, 980 lb down and 100 lb up at 10-1-4, 980 lb down and 100 lb up at 12-1-4, 980 lb down and 100 lb up at 14-1-4, and 980 lb down and 100 lb up at 16-1-4, and 980 lb down and 100 lb up at 18-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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

# LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 designe. 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/TPTI Ouality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_33_Picture_20.jpeg)

2-0-0 oc purlins (6-0-0 max.): 1-7, except end verticals.

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.

2x6 SPF No.2 - 5-9

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

Brace must cover 90% of web length.

![](_page_33_Picture_21.jpeg)

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 49 Summerlin/Harnett
					E14993229
J0820-3988	B1	FLAT GIRDER	1	2	
				<b>_</b>	Job Reference (optional)
Comtech, Inc. Fa	avetteville, NC - 28314.		8	3.330 s Oct	t 7 2020 MiTek Industries, Inc. Mon Oct 19 11:03:41 2020 Page 2

ID:TBflsx8xnbQ8q?qAEUg6cKzS70A-nFXV8XUV97jJexChpT?YJcFci43vd4KbWbV7AfyRt0W

# LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 8-14=-20, 1-2=-60, 2-6=-60, 6-7=-60

Concentrated Loads (lb)

Vert: 11=-823(F) 15=-823(F) 16=-823(F) 17=-823(F) 18=-823(F) 19=-823(F) 20=-823(F) 21=-823(F) 22=-823(F)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_34_Picture_8.jpeg)

![](_page_35_Figure_0.jpeg)

Design valid for use only design parameters and READ NOTES ON TIPS ON TIPS ON TIPS AND INCLODED MITER REFERENCE PAGE MIT 14/3 TeV. 5/ 9/2/20 BEFORE DSE. Design valid for use only with MITeK with with Key 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/TPI f Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road Edenton, NC 27932

Job		Truss	Truss Type	Qty	Ply	Precision/Lot 49 Summerlin/Harnett	
						E14993	3230
J0820-3988		B2	FLAT GIRDER	1	2		
					<b>Z</b>	Job Reference (optional)	
Comtech, Inc,	Fayettev	ille, NC - 28314,		8	3.330 s Oo	t 7 2020 MiTek Industries, Inc. Mon Oct 19 11:03:43 2020 Page 2	2
	-		ID:TBfl	sx8xnbQ8q	?qAEUg6	cKzS70A-kdeGZDVmhkz1tFM3wu10O1L0vtkS5?Muzv EEXyRt0U	j –

## LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-6=-60, 7-12=-20

Concentrated Loads (lb)

Vert: 11=-758(B) 8=-758(B) 13=-441(F) 14=-441(F) 15=-758(B) 16=-758(B) 17=-758(B) 18=-758(B) 19=-399(B) 20=-399(B)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_36_Picture_7.jpeg)

![](_page_37_Figure_0.jpeg)

⊢	6-0-0				12-0-0						
Plate Offsets (X V)	6-0-0 [2:0-2-0 Edge] [8:0-2-0 Edge]				6-0-0		·				
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0 *           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014	<b>CSI.</b> TC 0.23 BC 0.36 WB 0.07 Matrix-S	DEFL.         i           Vert(LL)         -0.04           Vert(CT)         -0.01           Horz(CT)         0.01           Wind(LL)         0.01	n (loc) l/defl 4 10-11 >999 7 10-11 >999 1 8 n/a 7 10-11 >999	L/d 360 240 n/a 240	PLATES MT20 Weight: 53 lb	<b>GRIP</b> 244/190 FT = 20%				
LUMBER-       TOP CHORD       2x4 SP No.1       TOP CHORD       Structural wood sheathing directly applied or 6-0-0 oc purlins.         BOT CHORD       2x4 SP No.1       BOT CHORD       Structural wood sheathing directly applied or 7-7-3 oc bracing.         WEBS       2x4 SP No.2       BOT CHORD       Rigid ceiling directly applied or 7-7-3 oc bracing.         REACTIONS.       (size)       2=0-3-0, 8=0-3-0 Max Horz       Max Horz         Max Uplift 2=-178(LC 8), 8=-178(LC 9) Max Grav 2=550(LC 1), 8=550(LC 1)       Max Horz											
FORCES.       (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         TOP CHORD       2-3=-686/759, 3-4=-636/758, 4-5=-621/790, 5-6=-621/790, 6-7=-636/758, 7-8=-686/759         BOT CHORD       2-14=-586/566, 13-14=-586/566, 12-13=-586/566, 10-11=-586/566, 8-10=-586/566         WEBS       5-12=-417/273											
NOTES- 1) Unbalanced roof live 2) Wind: ASCE 7-10; V MWFRS (envelope) for reactions shown; 3) Truss designed for v Gable End Details a	e loads have been considered for this dea /ult=130mph (3-second gust) Vasd=103n gable end zone and C-C Exterior(2) zon Lumber DOL=1.60 plate grip DOL=1.60 vind loads in the plane of the truss only. s applicable, or consult qualified building	sign. nph; TCDL=6.0psf; BCDL e; porch left and right exp For studs exposed to win designer as per ANSI/TF	=6.0psf; h=15ft; Cat. II; iosed;C-C for members id (normal to the face), Pl 1.	Exp C; Enclosed; and forces & MW see Standard Indu	FRS stry						

- applicable, or consu 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=178, 8=178.

![](_page_37_Figure_7.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_37_Picture_9.jpeg)

![](_page_38_Figure_0.jpeg)

F		6-0-0							12-0-0 6-0-0		
Plate Offsets (X,Y)	[2:0-2-0,Edge], [4:0-2-0,E	Edge]									
<b>_OADING</b> (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
rcll 20.0	Plate Grip DOL	1.15	тс	0.36	Vert(LL)	-0.03	<b>4</b> -6	>999	360	MT20	244/190
CDL 10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.06	4-6	>999	240		
CLL 0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	4	n/a	n/a		
CDL 10.0	Code IRC2015/T	PI2014	Matriz	k-S	Wind(LL)	0.08	4-6	>999	240	Weight: 46 lb	FT = 20%
UMBER-			1		BRACING-						
FOP CHORD 2x4 S	SP No 1				TOP CHOP	20	Structu	ral wood	sheathing di	rectly applied or 6-0-0	oc purlins

BOT CHORD

Rigid ceiling directly applied or 8-2-0 oc bracing.

TOP CHORD2x4 SP No.1BOT CHORD2x4 SP No.1WEBS2x4 SP No.2

REACTIONS. (size) 2=0-3-0, 4=0-3-0 Max Horz 2=-40(LC 13) Max Uplift 2=-131(LC 8), 4=-131(LC 9) Max Grav 2=550(LC 1), 4=550(LC 1)

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

 TOP CHORD
 2-3=-685/721, 3-4=-685/721

 BOT CHORD
 2-6=-537/551, 4-6=-537/551

WEBS 3-6=-361/283

# 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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 6-0-0, Exterior(2) 6-0-0 to 10-4-13, Interior(1) 10-4-13 to 13-2-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=131, 4=131.

![](_page_38_Figure_14.jpeg)

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![](_page_38_Picture_16.jpeg)

![](_page_39_Figure_0.jpeg)

LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.01	8	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	7	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TF	PI2014	Matri	x-S						Weight: 88 lb	FT = 20%

#### LUMBER-

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

BRACING-TOP CHORD

BOT CHORD

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

**REACTIONS.** All bearings 9-3-8.

(lb) - Max Horz 2=373(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 11, 12 except 9=-211(LC 12), 13=-144(LC 12) Max Grav All reactions 250 lb or less at joint(s) 2, 10, 11, 12, 13 except 9=295(LC 19)

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

TOP CHORD 2-3=-523/373, 3-4=-411/288, 4-5=-328/220, 6-7=-252/151, 7-9=-313/397

#### NOTES-

- 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) 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 11, 12 except (jt=lb) 9=211, 13=144.

![](_page_39_Picture_20.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 colleges 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_39_Picture_22.jpeg)

![](_page_40_Figure_0.jpeg)

	6-0-8											
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	0.20	Vert(LL)	-0.01	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/T	PI2014	Matri	k-S	Wind(LL)	0.01	5-6	>999	240	Weight: 50 lb	FT = 20%

BRACING-

TOP CHORD

BOT CHORD

# LUMBER-

TOP CHORD2x6 SP No.1BOT CHORD2x6 SP No.1WEBS2x6 SP No.1

REACTIONS. (size) 6=0-3-8, 5=Mechanical Max Horz 6=163(LC 12)

Max Uplift 5=-191(LC 9) Max Grav 6=196(LC 21), 5=441(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-322/219

WEBS 2-5=-447/490

#### NOTES-

- 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) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 8-3-8 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) 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) 5=191.

![](_page_40_Picture_14.jpeg)

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. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_40_Picture_16.jpeg)

![](_page_41_Figure_0.jpeg)

TCLL 20.0 Plate Grip DC TCDL 10.0 Lumber DOL BCLL 0.0 * Rep Stress In	L 1.15 1.15 cr YES	TC 0 BC 0 WB 0	).17 ).10 ).08	Vert(LL) Vert(CT) Horz(CT)	0.01 0.00 0.00	5 5	n/r n/r n/a	120 120 n/a	MT20	244/190
BCDL 10.0 Code IRC20	5/TPI2014	Matrix-P	0						Weight: 58 lb	FT = 20%

TOP CHORD	2x6
DOT OULO DD	~

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		except end verticals.
WEBS OTHERS	2x6 SP No.1 2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 6-0-8.

(lb) -Max Horz 10=240(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 10, 6, 8 except 9=-326(LC 12), 7=-269(LC 12) Max Grav All reactions 250 lb or less at joint(s) 6, 8 except 10=316(LC 12), 9=256(LC 19), 7=379(LC 19)

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

1-10=-270/147, 1-2=-412/271, 2-3=-251/150, 3-4=-310/185 2-9=-254/268, 4-7=-386/507 TOP CHORD

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) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 6, 8 except (jt=lb) 9=326, 7=269.

![](_page_41_Figure_19.jpeg)

818 Soundside Road Edenton, NC 27932

![](_page_41_Picture_20.jpeg)

![](_page_42_Figure_0.jpeg)

	⊢	-	7-1-6			9-3-8			19-3	3-8		
Plate Offset	ts (X,Y)	[2:0-0-6,0-1-3]	-1-0			2-2-2			10-0	5-0		
	(psf)	SPACING-	2-0-0	CSI.	0.21	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.16 18-19	>999	240	101120	244/130	

BCLL 0. BCDL 10.	.0 * .0	Rep Stress Incr YES Code IRC2015/TPI2014	WB 0.25 Matrix-S	Horz(CT) 0.03 Wind(LL) 0.09	3 15 n/a n/a 9 18 >999 240	Weight: 145 lb	FT = 20%
LUMBER- TOP CHORD	2x6 SP	No.1		BRACING- TOP CHORD	Structural wood sheathing di	rectly applied or 5-9-12 c	oc purlins,
BOT CHORD	2x6 SP	No.1			except end verticals.		
WEBS	2x4 SP	No.2 *Except*		BOT CHORD	Rigid ceiling directly applied	or 9-8-5 oc bracing.	
	12-15: 2	2x6 SP No.1		WEBS	1 Row at midpt 1	5-26	
OTHERS	2x4 SP	No.2		JOINTS	1 Brace at Jt(s): 26, 27		

REACTIONS. (size) 15=Mechanical, 2=0-3-8 Max Horz 2=236(LC 8) Max Uplift 15=-251(LC 12), 2=-238(LC 8) Max Grav 15=778(LC 1), 2=816(LC 1)

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

TOP CHORD 2-3=-1744/443, 3-4=-1682/466, 4-5=-1666/484, 5-6=-1642/503

 BOT CHORD
 2-23=-642/1617, 22-23=-642/1617, 21-22=-642/1617, 20-21=-642/1617, 19-20=-642/1617, 18-19=-642/1617, 15-16=-642/1617

 WEBS
 6-20=-106/362, 6-27=-1611/641, 26-27=-1576/627, 25-26=-1580/630, 24-25=-1587/631,

## NOTES-

- 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) 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.

15-24=-1621/646

- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=251, 2=238.

NUMBTH CAP WWWWWWWW or a state of the SEAL 036322 GI 11111111 October 19,2020

![](_page_42_Picture_17.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPTI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_43_Figure_0.jpeg)

	<u>−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−</u>	5 S	9-3-8	+			<u>19-3-8</u> 10-0-0		
Plate Offsets (X,Y)-	- [2:0-0-2,0-1-3]								
LOADING (psf)	SPACING- 2	2-0-0 <b>CSI</b> .	DE	FL. in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15 TC 0	.35 Ver	t(LL) -0.07	2-1Ó	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15 BC 0	.36 Ver	t(CT) -0.16	2-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES WB 0	.72 Hoi	rz(CT) 0.03	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI20	014 Matrix-S	Wir	nd(LL) 0.06	2-10	>999	240	Weight: 122 lb	FT = 20%
LUMBER-		ŀ	BR	ACING-					

LOWDEN		BIIAOING	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 5-5-8 oc purlins,
BOT CHORD	2x6 SP No.1		except end verticals.
WEBS	2x4 SP No.2 *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
	5-8: 2x6 SP No.1	WEBS	1 Row at midpt 3-8

REACTIONS. (size) 8=Mechanical, 2=0-3-8 Max Horz 2=165(LC 8) Max Uplift 8=-103(LC 12), 2=-98(LC 8) Max Grav 8=778(LC 1), 2=816(LC 1)

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

TOP CHORD 2-3=-1758/239, 5-8=-268/189

BOT CHORD 2-10=-383/1636, 8-10=-383/1636

WEBS 3-10=0/418, 3-8=-1601/364

## NOTES-

 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) -0-10-15 to 3-5-14, Interior(1) 3-5-14 to 19-3-8 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) 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) 2 except (jt=lb) 8=103.

![](_page_43_Picture_14.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPTI Ouality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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![](_page_44_Figure_0.jpeg)

LOADING         (ps           TCLL         20.           TCDL         10.           BCLL         0.           BCDL         10.	sf) .0 .0 .0 * .0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2015/TP	2-0-0 1.15 1.15 YES I2014	<b>CSI.</b> TC BC WB Matrix	0.07 0.02 0.03 x-P	<b>DEFL.</b> Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 1 1	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20 Weight: 24 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS	2x4 SP No 2x6 SP No 2x6 SP No	0.1 0.1 0.1				BRACING- TOP CHOR BOT CHOR	D	Structur except Rigid ce	ral wood end vertie eiling dire	sheathing di cals. ctly applied	rectly applied or 5-0-0 or 10-0-0 oc bracing.	oc purlins,

2x4 SP No.2 OTHERS

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

Max Horz 2=73(LC 8)

Max Uplift 5=-17(LC 8), 2=-92(LC 8), 6=-71(LC 12) Max Grav 5=40(LC 1), 2=189(LC 1), 6=225(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 (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) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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 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) 5, 2, 6.

![](_page_44_Picture_16.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 colleges 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_44_Picture_18.jpeg)

![](_page_45_Figure_0.jpeg)

Plate Offsets (X,Y)-	[2:0-2-14,0-0-6]	1 1					
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           PCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IPC/2015//TPI/2014	CSI. TC 0.26 BC 0.08 WB 0.00 Matrix B	DEFL.         in           Vert(LL)         -0.07           Vert(CT)         -0.07           Horz(CT)         0.00           Wind(LL)         0.07	n (loc) 2-4 2-4	l/defl L/d >999 360 >999 240 n/a n/a	PLATES MT20	<b>GRIP</b> 244/190
LUMBER- TOP CHORD 2x4 BOT CHORD 2x6	SP No.1 SP No.1	IVIAU IX-F	BRACING- TOP CHORD	Structu	ral wood sheat	hing directly applied or 5-0-0	oc purlins,

TOP CHORD2x4 SP No.1TOP CHORDStructural wood sheathing directly applied or 5-0-0 oc purlins,<br/>except end verticals.BOT CHORD2x6 SP No.1BOT CHORDBOT CHORDRigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-1-8 Max Horz 2=51(LC 8) Max Uplift 2=-121(LC 8), 4=-71(LC 8) Max Grav 2=277(LC 1), 4=174(LC 1)

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

### NOTES-

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-9-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 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.

![](_page_45_Picture_12.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_45_Picture_14.jpeg)

![](_page_46_Figure_0.jpeg)

TOP CHORD

BOT CHORD

WEBS

## LUMBER-

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

Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing. 2x4 SPF No.2 - 7-20 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 25-11-15.

(lb) -Max Horz 1=-264(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 13, 21, 22, 23, 24, 19, 17, 16, 15 except 25=-123(LC 12), 14=-122(LC 13) Max Grav All reactions 250 lb or less at joint(s) 1, 13, 20, 21, 22, 23, 24, 25, 19, 17, 16, 15, 14

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

TOP CHORD 1-2=-284/195

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

3) All plates are 2x4 MT20 unless otherwise indicated.

4) Gable requires continuous bottom chord bearing.

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

6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide

will fit between the bottom chord and any other members.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 13, 21, 22, 23, 24, 19, 17, 16, 15 except (jt=lb) 25=123, 14=122.

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

![](_page_46_Picture_21.jpeg)

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🙏 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only design parameters and READ NOTES ON TIRS AND INCLODED MITER REFERENCE PAGE mit-14/3 rev. 5/ 9/2/20 BEFORE DSE. Design valid for use only with MITeK we 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 dmage. 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** Sahrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANS/TPH Qu** Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_47_Figure_0.jpeg)

- 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) 0-7-12 to 5-0-9, Interior(1) 5-0-9 to 11-1-6, Exterior(2) 11-1-6 to 15-6-3, Interior(1) 15-6-3 to 21-7-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 21-7-0 Zone; C-C for members and forces & MVVFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=
   3) All plates are 2x4 MT20 unless otherwise indicated.
- All plates are 2x4 wir20 unless otherwise indicate
   Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 13, 8 except (jt=lb) 12=113, 9=112.

![](_page_47_Figure_7.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPTI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_47_Picture_9.jpeg)

![](_page_48_Figure_0.jpeg)

#### 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) 0-5-8 to 4-10-5, Interior(1) 4-10-5 to 9-2-13, Exterior(2) 9-2-13 to 13-7-9, Interior(1) 13-7-9 to 18-0-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

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

5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=136, 6=136.

![](_page_48_Picture_8.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 colleges 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_48_Picture_10.jpeg)

![](_page_49_Figure_0.jpeg)

#### NOTES-

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) 0-5-8 to 4-10-5, Interior(1) 4-10-5 to 7-4-3, Exterior(2) 7-4-3 to 11-9-0, Interior(1) 11-9-0 to 14-2-14 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=107, 6=107.

![](_page_49_Picture_8.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPTI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_49_Picture_10.jpeg)

<sup>1)</sup> Unbalanced roof live loads have been considered for this design.

![](_page_50_Figure_0.jpeg)

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) 0-5-8 to 4-10-5, Interior(1) 4-10-5 to 5-5-10, Exterior(2) 5-5-10 to 9-10-7, Interior(1) 9-10-7 to 10-5-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

6) Non Standard bearing condition. Review required.

![](_page_50_Picture_9.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPTI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_50_Picture_11.jpeg)

![](_page_51_Figure_0.jpeg)

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

4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

6) Non Standard bearing condition. Review required.

![](_page_51_Picture_10.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPTI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

A MiTek Affilia 818 Soundside Road Edenton, NC 27932

![](_page_52_Figure_0.jpeg)

2x4 🥢

2x4 📎

Plate Offsets (X,Y) [	2:0-2-0,Edge]		3-4-14			
L <b>OADING</b> (psf) TCLL 20.0 TCDL 10.0 3CLL 0.0 * 3CDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2015/TPI2014	<b>CSI.</b> TC 0.02 BC 0.05 WB 0.00 Matrix-P	<b>DEFL.</b> in (loc) l/defl Vert(LL) n/a - n/a Vert(CT) n/a - n/a Horz(CT) 0.00 3 n/a	L/d 999 999 n/a	<b>PLATES</b> MT20 Weight: 10 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- FOP CHORD 2x4 SP 3OT CHORD 2x4 SP	No.1 No.1		BRACING- TOP CHORD Structural woo BOT CHORD Rigid ceiling d	od sheathing directive applied or	ctly applied or 3-4-1 10-0-0 oc bracing.	4 oc purlins.

3-4-14

REACTIONS. (size) 1=3-4-14, 3=3-4-14

Max Horz 1=-21(LC 10) Max Uplift 1=-5(LC 12), 3=-5(LC 13) Max Grav 1=100(LC 1), 3=100(LC 1)

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

## NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

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

5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

![](_page_52_Picture_14.jpeg)

818 Soundside Road Edenton, NC 27932

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

![](_page_53_Figure_0.jpeg)

	ioDooian	CI TM Pr	lient: roject:				Da	ate: esigner:	10/19/202 Neal Bago	0 lett			Page 1 of 14
5	Ispesign	Ad	ddress:				Jo Pr	b Name	E LOT 49 SI	JMMERLIN			
BM1	Kerto-S L	VL 1.7	750" X	14.000	" 3-l	Ply - P	ASSE	)	Level: Level				
	3								5				
	22				1					4			
	Contraction of the second	· . · .		af	11 m	1. Andrew	-	- Aller	- Miles				
1 SPF			- 11-1	•							2 S	PF	
					20'4"								5 1/4"
/					20'4"								
Member I	nformation						Reaction	s UN	PATTERNI	ED lb (Upli	ft)		
Туре:	Girder		Applicatio	on: Flo	or		Brg	Live	e Dea	id Sno	W	Wind	Const
Plies:	3		Design M	lethod: AS	D		1	C	236	62 97	76	0	0
Deflection L	L: 480		Load Sha	Joae: IBC nrina: Yes	2012		2	(	) 236	62 97	76	0	0
Deflection T	L: 360		Deck:	Not	Checked								
Importance:	Normal												
Temperature	e: Temp <= 100	0°F					Boorings						
							Bearings	Longth	Can	Readt D/L lk	Total		I.d. Comb
							1 - SPF	2 500"	1 Cap. 43%	2362 / 976	5 3337	I Lu. Case	La. Comb. D+S
							2 - SPF	3.500"	43%	2362 / 976	5 3337	' L	D+S
Analysis R	lesults						ـــــــــــــــــــــــــــــــــــــ						
Analysis	Actual	Location Al	llowed	Capacity	Comb.	Case							
Moment	9135 ft-lb	10'2" 37	7907 ft-lb	0.241 (24%)	D	Uniform							
Unbraced	11538 TT-ID	10.2. 11	1546 IT-ID	0.999 (100%)	D+S	L							
Shear	2640 lb	18'11 1/4" 18	3032 lb	0.146 (15%)	D+S	L							
LL Defl inc	h 0.085 (L/2795)	10'2 1/16" 0.4	497 (L/480)	0.170 (17%)	S	L							
TL Defl inc	h 0.381 (L/627)	10'2 1/16" 0.	662 (L/360)	0.570 (57%)	D+S	L	ļ						
Design No	otes						1						
1 Fasten a to exceed	ll plies using 3 rows o d 6".	f 10d Box nails	(.128x3") at	12" o.c. Maxir	num end dis	stance not							
2 Refer to I	ast page of calculatio	ons for fasteners	s required fo	r specified load	ls.								
3 Girders a 4 Top loads	ire designed to be sup s must be supported e	pported on the t equally by all pli	bottom edge ies.	e only.									
5 Top must	be laterally braced a	t a maximum of	f 15'1 1/2" o	.C.									
6 Bottom b 7 Lateral sl	raced at bearings. enderness ratio base	d on single ply	width										
ID	Load Type	Lc	ocation T	rib Width	Side	Dead 0.9	Live 1	1 Sno	w 1.15 V	Vind 1.6 Co	nst. 1.25	Comment	S
1	Uniform			т	ор	120 PLF	0 PLF	=	0 PLF	0 PLF	0 PLF	WALL	
2	Part. Uniform	0-0-0 t	to 5-4-8	Т	ор	49 PLF	0 PLF	=	49 PLF	0 PLF	0 PLF	J2	
3	Tie-In	0-0-0 t	to 5-4-8 (\$	Span)13-3-0 T	ор	20 PSF	0 PSF	=	20 PSF	0 PSF	0 PSF	STICK FR/	AMING
4	Part. Uniform	14-11-8 to	20-4-0	Т	ор	49 PLF	0 PLF	=	49 PLF	0 PLF	0 PLF	J2	
5	Tie-In	14-11-8 to	20-4-0 (\$	Span)13-3-0 T	ор	20 PSF	0 PSF	=	20 PSF	0 PSF	0 PSF	STICK FR	AMING
	Self Weight					16 PLF							
Notes		chemicals			6. For flat	t roofs provide p	roper drainage to	prevent	Manufacture	Info	C	Comtech, Inc. 1001 S. Reilly Road	, Suite #639
Calculated Structure structural adequate	red Designs is responsible only by of this component based of	of the Handling	& Installation s must not be cut	1 or drilled	, houaiuć	3			Metsä Wood 301 Merritt 7 E	Building, 2nd Flo	or L	-ayetteville, NC JSA 28314	
cesign criteria a responsibility of th ensure the comp	and loadings shown. It is e customer and/or the contrac ponent suitability of the int	s the 2. Refer to ctor to regarding rended fastening	manufacturer's installation installation	equirements, multi-	ion ply ode				Norwalk, CT 0 (800) 622-585	6851 0	9	010-864-TRUS	
application, and to Lumber	verify the dimensions and loads	approvals 3. Damaged	Beams must not I	e used					www.metsawc ICC-ES: ESR-	od.com/us 3633			
<ol> <li>Dry service cor</li> <li>LVL not to be to</li> </ol>	ditions, unless noted otherwise reated with fire retardant or cor	4. Design as 5. Provide la lateral disr	sumes top edge is ateral support at	laterally restrained bearing points to av ation	oid	4 i						con	птесн
		iaterar dis	- acconone anu rol		This c	aesign is valid	untii 12/11/202	21					

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![](_page_54_Picture_2.jpeg)

		Client:		Date:	10/19/2020		Page 2 of 14
	licDecian™	Project:		Designer:	Neal Baggett		
67/	Isdesign	Address:		Job Name:	LOT 49 SUMMERLIN		
				Project #:			
BM1	Kerto-S LVL	1.750" X 14.0	000" 3-Ply - PAS	SED	evel: Level		
	· · · · · ·	· · · · ·	· · · · ·	· · ·	 		1'2"
· ·				• •		<u>·_</u> ¥	: @
1 SPF						2 SPF /	
			2014"				E 1/4"
			204				0 1/4
1			20'4"			1	
Multi-Ply	y Analysis						
Fasten all	plies using 3 rows of 1	Od Box nails (.128x3")	) at 12" o.c Nail from both	n sides. Maxin	num end distance n	ot to exceed	
6"	p j	,	,				
Capacity	0.0 %	6					
Load	0.0 F	PLF					
Yield Limit pe	er Foot 245.0	6 PLF					
Yield Limit pe	er Fastener 81.9	lb.					
Yield Mode	IV						
Edge Distand	ce 1 1/2	)" -					
Min. End Dist	tance 3"						
Load Combin	nation						

Notes	chemicals	6. For flat roofs provide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
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. <b>Lumber</b> 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive	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	ponding This design is valid until 12/11/2021	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	Fayetteville, NC USA 28314 910-864-TRUS
Version 10.00.24F Deversed by Convert				

Duration Factor

1.00

![](_page_55_Picture_3.jpeg)

![](_page_56_Figure_0.jpeg)

Version 18.80.245 Powered by iStruct™

![](_page_56_Picture_2.jpeg)

	isDesign™	Client: Project:		Date: Designer	10/19/2020 : Neal Baggett	Page 4 of 1
	130 631311	Address:		Job Nam Project #	e: LOT 49 SUMMERLIN	
GDH	Kerto-S LVI	_ 1.750" X 16.	000" 2-Ply -	PASSED	Level: Level	
•	• • •	• • •	• • •	• •	· · · ·	
						· ·   [7]
1 SPF	• • •	· · ·	• • •	• •	2 SPF End	
			16'7"			3 1/2"
1			16'7"			1
Multi-Ply	y Analysis					
Fasten all	plies using 3 rows o	of 10d Box nails (.128x3	) at 12" o.c Maximur	n end distance n	ot to exceed 6"	
.oad /ield Limit pe	er Foot 2	45.6 PLF				
field Limit pe	er Fastener 8	1.9 lb.				
ieid Mode dge Distand	ce 1	v 1/2"				
lin. End Dis	stance 3	"				
Duration Fac	ctor 1	.00				
					Manufacture 1.5	Constaals Inc
Notes	tured Designs is responsible only of th	chemicals	<ol><li>For flat roofs provide ponding</li></ol>	e proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC
structural adequi design criteria	act of this component based on the and loadings shown. It is the	<ul> <li>e 1. LVL beams must not be cut or drilled</li> <li>e 2. Refer to manufacturer's product</li> </ul>	information		301 Merritt 7 Building, 2nd Floor	USA 28314
responsibility of ensure the cor	the customer and/or the contractor to imponent suitability of the intender	d regarding installation requirement fastening details, beam strength value	s, multi-ply s, and code		Norwalk, CT 06851 (800) 622-5850	910-864-TRUS
application, and t Lumber	to verity the dimensions and loads.	approvals 3. Damaged Beams must not be used 4. Design assumes top odds is laterally as	strained		www.metsawood.com/us ICC-ES: ESR-3633	
<ol> <li>Dry service o</li> <li>LVL not to be</li> </ol>	conditions, unless noted otherwise e treated with fire retardant or corrosive	<ul> <li>Design assumes top edge is laterally re</li> <li>5. Provide lateral support at bearing polateral displacement and rotation</li> </ul>	ints to avoid This design is vo	lid until 12/11/2021		соттесн
Vorcion 18 80	245 Poworod by iStructIM		This design is Va	GIIGI IZ/ I I/ZUZ I	1	

![](_page_57_Picture_1.jpeg)

i	sDesign™	Client: Project: Address:		Date: Designer Job Nam Project #	10/19/2020 : Neal Baggett ie: LOT 49 SUMMERLIN :	Page 5 of 14
BM2	Kerto-S LVL	1.750" X 9.250'	' 2-Ply -	PASSED	Level: Level	
•		1 • • •	•	•	•	9 1/4
	End Grain	0171		2 SPF End	I Grain	
		6'7"				3 <sup>-</sup> 1/2 <sup></sup>
Member In	formation	Application		Reactions UN	IPATTERNED Ib (Uplift)	) Wind Const
Plies: Moisture Con Deflection LL: Deflection TL: Importance: Temperature:	dition: Dry 480 360 Normal Temp <= 100°F	Application: Floor Design Method: ASD Building Code: IBC 2 Load Sharing: No Deck: Not C	012 Necked	1 267 2 267	e Dead Show 70 912 0 70 912 0	0 0 0 0
porata or				Bearings		
				Bearing Lengt 1 - SPF 3.500	th Cap. React D/L lb " 34% 912 / 2670	Total Ld. Case Ld. Comb. 3582 L D+L
Analysis Re	sults			Grain		
Analysis Moment Unbraced Shear LL Defl inch TL Defl inch	Actual         Locat           5103 ft-lb         3'3           5103 ft-lb         3'3           2494 lb         0.069 (L/1063)         3'3           0.093 (L/792)         3'3	ion         Allowed         Capacity         Cd           1/2"         12542 ft-lb         0.407 (41%)         D4           1/2"         9934 ft-lb         0.514 (51%)         D4           1'         6907 lb         0.361 (36%)         D4           1/2"         0.153 (L/480)         0.450 (45%)         L           1/2"         0.204 (L/360)         0.450 (45%)         D4	omb. Case +L L +L L +L L L L +L L	2 - SPF 3.500' End Grain	" 34% 912 / 2670	3582 L D+L
Design Not	tes					
<ol> <li>Fasten all j to exceed 6</li> <li>Refer to las</li> <li>Girders are</li> <li>Top loads r</li> <li>Top bracec</li> <li>Bottom bra</li> <li>Lateral sleet</li> </ol>	blies using 2 rows of 10d Bo 5". Is page of calculations for fa e designed to be supported must be supported equally b l at bearings. Icced at bearings. Inderness ratio based on sin	ox nails (.128x3") at 12" o.c. Maximu asteners required for specified loads. on the bottom edge only. by all plies. gle ply width.	m end distance not			
ID 1	Load Type Uniform Self Weight	Location Trib Width Sid	de Dead 0.9 o 270 PLF 7 PLF	Live 1 Sn 811 PLF	ow 1.15 Wind 1.6 Cons 0 PLF 0 PLF	t. 1.25 Comments 0 PLF F2
Notes Calculated Structured structural adequacy design criteria ann responsibility of the ensure the compor	Designs is responsible only of the Hi of this component based on the 1, d loadings shown. It is the 2. customer and/or the contractor to rent suitability of the intended	chemicals andling & Installation LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-byb	<ol> <li>For flat roofs provide p ponding</li> </ol>	proper drainage to prevent	Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS
application, and to ver Lumber 1. Dry service condit 2. LVL not to be treat	rify the dimensions and loads. a, a, a, a, b, a, a, b, a, a, b, a, a, b, a, b	approvals Damaged Beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation	This design is valic	l until 12/11/2021	www.metsawood.com/us ICC-ES: ESR-3633	сотесн

![](_page_58_Picture_2.jpeg)

isDesign™	Client: Project: Address:	Date: Designer Job Nam Project #	10/19/2020 r: Neal Baggett ne: LOT 49 SUMMERLIN t:	Page 6 of 14
BM2 Kerto-S LVL	1.750" X 9.250"	2-Ply - PASSED	Level: Level	
• •	• •	• •	• • • • • • • • • • • • • • • • • • • •	9 1/
1 SPF End Grain	6'7" 6'7"	2 SPF End	d Grain	3 1/2"
Fasten all piles using 2 rows of 10         Capacity       0.0 %         Load       0.0 PLI         Yield Limit per Foot       163.71         Yield Limit per Fastener       81.91b         Yield Mode       IV         Edge Distance       1 1/2"         Min. End Distance       3"         Load Combination       Duration Factor         1.00       1.00	G BOX HAIIS (.128X3") AT 12"	o.c Maximum end distance n	Iot to exceed 6	
Notes Calculated Structured Designs is responsible only of the structural adequacy of this component based on the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads. Lumber 1. Due service conditions unless polled otherwise	hemicals <b>Idling &amp; Installation</b> VL beams must not be cut or drilled tefer to manufacturer's product information garding installation requirements, multi-ply stening details, beam strength values, and code provals amaged Beams must not be used tesign assumes top edge is laterally restrained	<ol> <li>For flat roofs provide proper drainage to prevent ponding</li> </ol>	Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (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
2. LVL not to be treated with fire retardant or corrosive	rovide lateral support at bearing points to avoid teral displacement and rotation	This design is valid until 12/11/2021		соттесн

Version 18.80.245 Powered by iStruct<sup>†</sup>

![](_page_59_Picture_2.jpeg)

![](_page_60_Figure_0.jpeg)

Version 18.80.245 Powered by iStruct™

isDesign™	Client: Project: Address:	Date: Designer Job Nam Project #	10/19/2020 T Neal Baggett te: LOT 49 SUMMERLIN t:	Page 8 of 14
BM3 Kerto-S LVL	1.750" X 9.250"	2-Ply - PASSED	Level: Level	
•••	• •	• •	• ~ 11/2"	9 1/
1 SPF End Grain	6'7" 6'7"	2 SPF End	I Grain	3 1/2"
Pastern an prices using 2 rows of rec         Capacity       0.0 %         Load       0.0 PL         Yield Limit per Foot       163.7         Yield Limit per Fastener       81.9 lb         Yield Mode       IV         Edge Distance       1 1/2"         Min. End Distance       3"         Load Combination       Duration Factor         Duration Factor       1.00	F PLF 2.	o.c Maximum end distance n		
Notes         Calculated Structured Designs is responsible only of the tarticutaria dequacy of this component based on the taging 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.         Calculated Structured Designs is responsible only of the structured application, and to verify the dimensions and loads.         Calculated Structured Designs is responsible only of the structured application, and to verify the dimensions and loads.         Calculated Structured Designs is responsible only of the structured dimensions and loads.         Calculated Structured Designs is responsible only of the structured dimensions and loads.         Calculated Structured Designs is responsible only of the structured dimensions and loads.         Calculated Structured Designs is responsible on the structured dimensions and loads.         Structured Designs is responsible on the structured dimensions and loads.           1. Dry service conditions, unless noted otherwise         5.         5.	chemicals ndling & Installation LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals Damaged Beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid alteral displacement over critering	<ol> <li>For flat roofs provide proper drainage to prevent ponding</li> </ol>	Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (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
	,	mis design is valid until 12/11/2021		

Version 18.80.245 Powered by iStruct<sup>†</sup>

![](_page_61_Picture_2.jpeg)

		Client:		Date:	10/19/2020	Page 9 of 14
	isDesign™	Project:		Designe	r: Neal Baggett	
J)	ISDESIGN	Address:		Job Nan	ne: LOT 49 SUMMERLIN	
					#:	
BM4	Kerto-S LVL	1.750" X 9.2	250" 2-Ply	PASSED		
			3			
			°			
	2	1				
	a ritte	and the second second	at the particular			9 1/
•	AND AND AND A DESCRIPTION OF A DESCRIPTI		Suid and a suid second suid	Salation of the second state and		
1 SF	PF End Grain		2	SPF End Grain		
		5'11"		,		3 1/2"
1		5'11"		~		
Member I	nformation			Reactions UN	NPATTERNED lb (Up	lift)
Туре:	Girder	Application:	Floor	Brg Liv	ve Dead Sr	ow Wind Const
Plies: Moisture Co	2 andition: Dry	Design Method: Building Code:	ASD	1 6	95 1787 1	180 0 0
Deflection L	L: 480	Load Sharing:	No	2 6	95 1787 1	180 0 0
Deflection T	L: 360	Deck:	Not Checked			
Importance:	Normal					
remperature	e: Temp <= 100 F			Bearings		
				Bearing Leng	th Cap. React D/L	lb Total Ld. Case Ld. Comb.
				1 - SPF 3.000	)" 35% 1787 / 14	07 3194 L D+0.75(L+S)
Analysis R	esults .			Grain		
Analysis	Actual Locati	on Allowed Capacit	y Comb. Case	2 - SPF 3.000	)" 35% 1787 / 14	07 3194 L D+0.75(L+S)
Moment	4145 ft-lb 2'11 1	/2" 14423 ft-lb 0.287 (2	9%) D+0.75(L+S) L	Grain		
Unbraced	4145 ft-lb 2'11 1.	/2" 11027 ft-lb 0.376 (3	8%) D+0.75(L+S) L			
Snear	2159 lb 411 1. h 0.028 (I./2346) 2'11 1	/2" /943 lb 0.272 (2 /2" 0.139 (1./480) 0.200 (2	7%) D+0.75(L+S) L 0%) 0.75(L+S) L			
TL Defl inc	h 0.064 (L/1033) 2'11 1	/2" 0.185 (L/360) 0.350 (3	5%) D+0.75(L+S) L			
Desian Na	otes			7		
1 Fasten al	I plies using 2 rows of 10d Bo	x nails (.128x3") at 12" o.c. I	Maximum end distance not	-		
to exceed 2 Refer to l	ast page of calculations for fa	steners required for specifie	d loads.			
3 Girders a	re designed to be supported of	on the bottom edge only.				
5 Top brace	ed at bearings.	y all plies.				
6 Bottom b	raced at bearings. enderness ratio based on sinc	le ply width				
ID	Load Type	Location Trib Width	Side Dead 0.	9 Live 1 Sr	now 1.15 Wind 1.6 C	onst. 1.25 Comments
1	Uniform		Top 120 PL	F 0 PLF	0 PLF 0 PLF	0 PLF WALL
2	Uniform		Top 399 PL	F 0 PLF	399 PLF 0 PLF	0 PLF A2
3	Uniform		Top 78 PL	F 235 PLF	0 PLF 0 PLF	0 PLF F2
	Self Weight		7 PL	F		
Notes		chemicals	6. For flat roofs provide	proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road. Suite #639
Calculated Structur structural adequac	red Designs is responsible only of the by of this component based on the 1. I	ndling & Installation .VL beams must not be cut or drilled	ponding		Metsä Wood 301 Merritt 7 Building, 2nd F	Fayetteville, NC USA 29914
design criteria and loadings shown. It is the 2. Refer to manufacturer's product information regarding installation requirements, multi-ply festening details hears strails hears total.					Norwalk, CT 06851 (800) 622-5850	28314 910-864-TRUS
application, and to	verify the dimensions and loads. 3.	approvals Damaged Beams must not be used	inod		www.metsawood.com/us ICC-ES: ESR-3633	
<ol> <li>Dry service con</li> <li>LVL not to be to</li> </ol>	ditions, unless noted otherwise reated with fire retardant or corrosive	Design assumes top edge is laterally restra Provide lateral support at bearing point ateral displacement and rotation	ameu s to avoid This design is va	lid until 12/11/2021		соттесн
			This design is Va		1	

![](_page_62_Picture_2.jpeg)

6	isDesign™	Client: Project: Address:	Date: Designe Job Nar Project i	10/19/2020 rr: Neal Baggett ne: LOT 49 SUMMERLIN #:	Page 10 of 1
BM4	Kerto-S LVL	1.750" X 9.250"	2-Ply - PASSED	Level: Level	
•	•	• •	• • •		M T
•	•	• •	• • • –	<u> </u>	9 1/
18	SPF End Grain		2 SPF End Grain		
		5'11"		·	3 1/2"
1		5'11"	ŕ		
Multi-Ply	/ Analysis				
Fasten all	plies using 2 rows of 1	0d Box nails (.128x3") at 12" (	o.c Maximum end distance r	not to exceed 6"	
.oad (iald Limit pr	0.0 F				
field Limit pe	er Fastener 81.9	Ib.			
ield Mode	IV 1/2	"			
lin. End Dis	tance 3"				
oad Combin	nation tor 1.00				
	1.00				
Neter		chemicale	6. For flat roofs provide proper drainage to provent	Manufacturer Info	Comtech, Inc.
Calculated Struct	tured Designs is responsible only of the H	andling & Installation	ponding	Metsä Wood	Fayetteville, NC USA
design criteria responsibility of	and loadings shown. It is the 2 the customer and/or the contractor to	LVL peams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-plv		SUT Merritt 7 Building, 2nd Floor Norwalk, CT 06851	28314 910-864-TRUS
ensure the cor application, and t	mponent suitability of the intended to verify the dimensions and loads.	fastening details, beam strength values, and code approvals		(800) 622-5850 www.metsawood.com/us	
1. Dry service of 2. LVL not to be	onditions, unless noted otherwise	Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid		IUU-ES: ESR-3033	соттесн
		iateral displacement and rotation	This design is valid until 12/11/2021		

![](_page_63_Picture_2.jpeg)

![](_page_64_Figure_0.jpeg)

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isDesign™	Client: Project: Address:	Date: Designe Job Nan Project #	10/19/2020 r: Neal Baggett ne: LOT 49 SUMMERLIN f:	Page 12 of 1
BM5 Kerto-S LVL	1.750" X 9.250"	2-Ply - PASSED	Level: Level	
		• •	•	
		• •	+ + 112	9 1/
1 SPF End Grain	6'7"	2 SPF Er	d Grain	↓ ↓ ↓ 3 1/2"
<del> </del>	6'7"		ł	
Capacity 0.0 % Load 0.0 PLF Yield Limit per Foot 163.7 P Yield Imit per Fastener 81.9 lb. Yield Mode IV Edge Distance 3" Load Combination Duration Factor 1.00	LF			
Notes chr Calculated Structured Designs is responsible only of the Hant structural adequacy of this component based on the 1. Ly design criteria and loadings shown. It is the responsibility of the customer and/or the contractor 2. Re	emicals dling & Installation L beams must not be cut or drilled fer to manufacturer's product information	<ol> <li>For flat roofs provide proper drainage to prevent ponding</li> </ol>	Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS
ensure the component suitability of the intended regression the component suitability of the intended regression and loads. Application, and to verify the dimensions and loads. Application, and to verify the dimensions and loads. Application and the suitability of the intended regression and the suitability of the intended regression. Application and the suitability of the intended regression and the suitability of the intended regression and the suitability of the intended regression. Application and the suitability of the intended regression and the suitability of the intended regression and the suitability of the intended regression and the suitability of the intended regression. Application and the suitability of the intended regression and the suitability of the suitabilit	jaroung instaliation requirements, multi-ply itening details, beam strength values, and code provals maged Beams must not be used sign assumes top edge is laterally restrained ovide lateral support at bearing points to avoid eral displacement and rotation	This design is valid until 12/11/2021	(800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	соттесн

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![](_page_65_Picture_2.jpeg)

![](_page_66_Figure_0.jpeg)

![](_page_66_Picture_2.jpeg)

	isDesign	тм	Client: Project: Address:			Date: Design Job Na Project	10/19/2020 er: Neal Baggett me: LOT 49 SUMMERLIN #:	Page 14 of 1
BM6	Kerto-S L	VL	1.750" X 9	9.250"	2-Ply -	- PASSED	Level: Level	
•	•	•	•	•	•	• •	• •	21 L 14"
	•	•	•	•	•	• •	• •	
	7 End Grain			10	'3 1/2"		2 SPI	- End Grain
/				10	3 1/2"			
Multi-Ply	Analysis							
Fasten all Capacity	plies using 2 row	/s of 10d 0.0 %	Box nails (.128x	3") at 12" d	o.c Maximur	n end distance	not to exceed 6"	
Load Vield Limit ne	er Foot	0.0 PLF 163 7 PL	E					
Yield Limit pe	er Fastener	81.9 lb.						
Yield Mode	<u>`</u>	IV 1 1/2"						
Min. End Dist	tance	3"						
Load Combin	nation	1.00						
	101	1.00						
Notes	med Designs is soon 111	cherr	icals	e	<ol> <li>For flat roofs provide ponding</li> </ol>	e proper drainage to preven	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Eavetteville NC
Calculated Structu structural adequa	ured Designs is responsible only acy of this component based of and loadings shown It is	of the <b>Handl</b> i on the <u>1. LVL</u> to the <u>0. D</u>	eams must not be cut or drilled	at information			Metsa Wood 301 Merritt 7 Building, 2nd Flo	DOF USA 28314
responsibility of t ensure the con	the customer and/or the contrac nponent suitability of the int	ctor to 2. Refer ended faste	to manufacturer's production installation requirem the ding details, beam strength version of the st	uct information ents, multi-ply alues, and code			Norwalk, CT 06851 (800) 622-5850	910-864-TRUS
application, and to Lumber	o verify the dimensions and loads	· appro 3. Dama	aged Beams must not be used				www.metsawood.com/us ICC-ES: ESR-3633	
<ol> <li>Dry service co</li> <li>LVL not to be</li> </ol>	onditions, unless noted otherwise treated with fire retardant or cor	4. Desig 5. Provi rosive later	in assumes top edge is laterally de lateral support at bearing displacement and rotation	restrained points to avoid	This dealer in the			соттесн
		laidh	Internet and Totation		i nis design is va	iia untii 12/11/2021		

by

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