

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 24356-24356B CL 3145 CP

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I42366172 thru I42366197

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

North Carolina COA: C-0844



August 11,2020

# Sevier, Scott

**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 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

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CL 3145 CP	
						142366172
24356-24356B	GR01	Common Girder	1	2		
				<b>_</b>	Job Reference (optional)	
84 Components (Dunn),	Dunn, NC - 28334,		8	.330 s Jul 1	22 2020 MiTek Industries, Inc. Mon A	Aug 10 13:12:51 2020 Page 2
		ID:t3e	epcH3jsYD	tlBpFK2vj	bozk_By-x2Kog0Ett4Gol_wPQGaU5_	_yiWE6dC5?JWlGPGaypEnQ

## LOAD CASE(S) Standard Concentrated Loads (Ib)

Vert: 7=-1409(F) 14=-1409(F) 15=-1409(F) 16=-1409(F) 17=-1409(F)





A MITEK Affiliate 818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CL 3145 CP
					142366173
24356-24356B	GR02	Common Girder	1	2	lab Deference (actional)
				-	Job Reference (optional)
84 Components, Dunn, NC 28334	1				8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Aug 10 14:13:22 2020 Page 2
			ID:t3epcH	3jsYDtIBp	FK2vjoozk_By-uORO4dfXko2wPWVM5Eb0FxrDIwNnSFWmS9K2CdypDu

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

Uniform Loads (plf) Vert: 1-3=-60, 3-5=-60, 8-11=-20

Concentrated Loads (lb)

Vert: 11=-1547(F) 14=-1542(F) 15=-1540(F) 16=-1540(F) 17=-1540(F) 18=-1540(F)





		0-2-4	<u>2-0-0</u> 1-9-12	———————————————————————————————————————
LOADING (psf) TCLL 20.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOI 1.15	<b>CSI.</b> TC 0.07 BC 0.02	<b>DEFL.</b> in (loc) I/defl L/d Vert(LL) -0.00 7 >999 240 Vert(CT) -0.00 7 >999 180	PLATES         GRIP           MT20         197/144
CLL 0.0 * CDL 10.0	Rep Stress Incr YES Code IRC2015/TPI2014	WB 0.00 Matrix-MP	Horz(CT) 0.00 4 n/a n/a	Weight: 8 lb FT = 20%

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 WEBS 2x4 SP No.3

TOP CHORD

Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.

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

REACTIONS. (size) 2=0-3-8, 4=0-1-8 Max Horz 2=31(LC 7) Max Uplift 2=-73(LC 8), 4=-3(LC 8) Max Grav 2=150(LC 1), 4=58(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=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 2 and 3 lb uplift at joint 4.







	0-2-4		4-0-0	
Plate Offsets (X,Y)	[2:0-0-6,Edge]		3-9-12	
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.18	Vert(LL) -0.01 4-7 >999 240	MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.16	Vert(CT) -0.02 4-7 >999 180	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 2 n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP		Weight: 15 lb FT = 20%
LUMBER-			BRACING-	

### LUMBER-

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 2x4 SP No.3 WEBS

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

(size) 4=0-1-8, 2=0-3-8 REACTIONS. Max Horz 2=58(LC 7) Max Uplift 4=-29(LC 8), 2=-81(LC 8)

Max Grav 4=146(LC 1), 2=222(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=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 4 and 81 lb uplift at joint 2.



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 **ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate horiture 2670. Crian Highway. Suite 203 Waldroff MD 2061 
 Satisfy of the storage, delivery, erection and bracing of trusses and truss systems, see
 ANSI/TPH Qu

 Safety Information
 available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





0-6-8	<u>6-0-0</u> 5-5-8			1 <sup>.</sup> 5	1-5-8 -5-8		12-0-0
LOADING (psf) TCLL 20.0	SPACING- 2-0-0 Plate Grip DOL 1.15	<b>CSI.</b> TC 0.41	DEFL. in Vert(LL) -0.02	(loc) l/defl 6-14 >999	L/d 240	PLATES MT20	<b>GRIP</b> 197/144
ICDL 10.0 BCLL 0.0 * BCDL 10.0	Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014	BC 0.28 WB 0.08 Matrix-MS	Vert(C1) -0.04 Horz(CT) 0.01	6-14 >999 4 n/a	180 n/a	Weight: 43 lb	FT = 20%
LUMBER-			BRACING-				

TOP CHORD

BOT CHORD

#### LOWRER

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2
WEBS	2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 4=0-3-8 Max Horz 2=-29(LC 6) Max Uplift 2=-145(LC 8), 4=-145(LC 8) Max Grav 2=540(LC 1), 4=540(LC 1)

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

TOP CHORD 2-3=-645/111, 3-4=-645/111

BOT CHORD 2-6=-28/556, 4-6=-28/556

## 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=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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 20.0psf 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 145 lb uplift at joint 2 and 145 lb uplift at joint 4.



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

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





![](_page_8_Figure_1.jpeg)

REACTIONS. (size) 2=0-3-8, 5=0-3-8 Max Horz 2=21(LC 24) Max Uplift 2=-185(LC 8), 5=-185(LC 8) Max Grav 2=689(LC 1), 5=689(LC 1)

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

TOP CHORD 2-3=-1011/184, 3-4=-931/178, 4-5=-999/180

BOT CHORD 2-8=-119/934, 7-8=-112/943, 5-7=-123/923

### 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=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

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

5) \* This truss has been designed for a live load of 20.0psf 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 185 lb uplift at joint 2 and 185 lb uplift at joint 5.

7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-4=-60, 4-6=-60, 2-5=-20

Concentrated Loads (lb)

Vert: 3=-22(F) 4=-22(F) 8=-15(F) 7=-15(F) 17=-22(F) 18=-93(F) 19=-15(F) 20=-93(F)

![](_page_8_Picture_22.jpeg)

TREERING BY A MiTek Affiliate 818 Soundside Road

Edenton, NC 27932

![](_page_9_Figure_0.jpeg)

			' 0-6-0				3-6-0	)				
LOADING (	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 2 TCDL 1	20.0 10.0	Plate Grip DOL Lumber DOL	1.15 1.15	TC BC	0.14 0.10	Vert(LL) Vert(CT)	-0.01 -0.01	4-9 4-9	>999 >999	240 180	MT20	197/144
BCLL BCDL 1	0.0 * 10.0	Rep Stress Incr Code IRC2015/TF	YES PI2014	WB Matri	0.00 x-MP	Horz(CT)	0.00	3	n/a	n/a	Weight: 14 lb	FT = 20%

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LUMBER-
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TOP CHORD2x4 SP No.2 or 2x4 SPF No.2BOT CHORD2x4 SP No.2 or 2x4 SPF No.2

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

Max Horz 2=72(LC 8)

Max Uplift 3=-39(LC 8), 2=-86(LC 8)

Max Grav 3=82(LC 1), 2=258(LC 1), 4=60(LC 3)

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=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 20.0psf 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 39 lb uplift at joint 3 and 86 lb uplift at joint 2.

![](_page_9_Figure_15.jpeg)

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![](_page_9_Picture_17.jpeg)

BRACING-TOP CHORD BOT CHORD

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

![](_page_10_Figure_0.jpeg)

		0-6-8	2-0-0 1-5-8	 
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 *	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code JEC2015//[Pl2014	CSI. TC 0.09 BC 0.06 WB 0.00 Matrix MP	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         -0.00         5         >999         240           Vert(CT)         -0.00         5         >999         180           Horz(CT)         -0.00         3         n/a         n/a	PLATES         GRIP           MT20         197/144

BRACING-

TOP CHORD

BOT CHORD

```
LUMBER-
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TOP CHORD2x4 SP No.2 or 2x4 SPF No.2BOT CHORD2x4 SP No.2 or 2x4 SPF No.2

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

Max Horz 2=46(LC 8)

Max Uplift 3=-5(LC 5), 4=-7(LC 1), 2=-96(LC 8)

Max Grav 3=13(LC 13), 4=20(LC 8), 2=213(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=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf 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 5 lb uplift at joint 3, 7 lb uplift at joint 4 and 96 lb uplift at joint 2.

![](_page_10_Picture_15.jpeg)

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

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

![](_page_10_Picture_17.jpeg)

![](_page_11_Figure_0.jpeg)

	<u>0-6-0</u> 0-6-0	2-0-0 1-6-0				4-0-0 2-0-0		———————————————————————————————————————
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0         *           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrNOCode IRC2015/TPI2014	CSI. TC 0.09 BC 0.17 WB 0.02 Matrix-MP	DEFL. i Vert(LL) -0.0 Vert(CT) -0.0 Horz(CT) 0.0	n (loc) I 6 2 6 ) 2	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 15 lb	<b>GRIP</b> 197/144 FT = 20%
LUMBER-			BRACING-					

TOP CHORD

BOT CHORD

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 2x4 SP No.3 WEBS

REACTIONS. (size) 5=Mechanical, 2=0-3-8 Max Horz 2=33(LC 7) Max Uplift 5=-22(LC 5), 2=-95(LC 8) Max Grav 5=113(LC 1), 2=255(LC 1)

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

## NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60

plate grip DOL=1.60 3) Provide adequate drainage to prevent water ponding.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf 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) Refer to girder(s) for truss to truss connections.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 5 and 95 lb uplift at joint 2.

8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

- 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-3=-60, 3-4=-60, 5-7=-20 Contraction of the SEAL 044925 S mm August 11,2020

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

except end verticals, and 2-0-0 oc purlins: 3-4.

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

![](_page_11_Picture_22.jpeg)

![](_page_12_Figure_0.jpeg)

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 Satisfies
 Ansi/TPH Qu

 Safety Information
 available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

## 818 Soundside Road Edenton, NC 27932

August 11,2020

![](_page_13_Figure_0.jpeg)

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

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CL 3145 CP	
						142366182
24356-24356B	T01A	ROOF TRUSS	6	1		
					Job Reference (optional)	
84 Components (Dunn),	Dunn, NC - 28334,		8	.330 s Jul 2	22 2020 MiTek Industries, Inc. Mon Aug 10 13:13:02 2020	Page 2
		ID:t3	epcH3jsYI	DtIBpFK2vj	oozk_By-79Uy_nNnITeEagGXZ4H32IvUvgtmH4zx2yQU9R	lypĒnF

LOAD CASE(S) Standard

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

Vert: 1-7=-60, 7-12=-60, 23-26=-20, 17-19=-20

Concentrated Loads (lb)

Vert: 16=-75(F)

![](_page_14_Picture_7.jpeg)

![](_page_15_Figure_0.jpeg)

Left: 2x4 SP No.3 , Right: 2x4 SP No.3

- (lb) Max Horz 2=-102(LC 6)
  - Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

## 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=40ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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 1.5x4 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.

10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 8.

![](_page_15_Picture_17.jpeg)

![](_page_15_Picture_19.jpeg)

REACTIONS. All bearings 11-2-0.

![](_page_16_Figure_0.jpeg)

![](_page_16_Picture_1.jpeg)

TRENGINEERING BY A MITCH Attiliate 818 Soundside Road

Edenton, NC 27932

![](_page_17_Figure_0.jpeg)

```
REACTIONS. All bearings 11-1-8.
```

- (lb) Max Horz 2=-102(LC 6)
  - Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

## 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=40ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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 1.5x4 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.

10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 8.

![](_page_17_Picture_16.jpeg)

ENGINEERING BY REENCO AMITEK Affiliate 818 Soundside Road

Edenton, NC 27932

![](_page_18_Figure_0.jpeg)

![](_page_18_Picture_2.jpeg)

![](_page_19_Figure_0.jpeg)

- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 30, 31, 32, 33, 34, 35, 36, 28, 26, 25, 24, 23, 22 except (jt=lb) 21=109.

![](_page_19_Picture_6.jpeg)

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Edenton, NC 27932

![](_page_20_Figure_0.jpeg)

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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 20.0psf 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=311, 8=311.

![](_page_20_Picture_6.jpeg)

![](_page_20_Picture_8.jpeg)

![](_page_21_Figure_0.jpeg)

			32-0-0		
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 *	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Bep Stress Incr. YES	CSI. TC 0.16 BC 0.12 WB 0.18	DEFL. in (loc Vert(LL) 0.00 1 Vert(CT) 0.01 1 Horz(CT) 0.01 1	c) l/defl L/d 19 n/r 120 19 n/r 90	PLATES         GRIP           MT20         197/144
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			Weight: 193 lb FT = 20%
LUMBER-			BRACING-		

#### 

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 2x4 SP No.3 OTHERS

TOP CHORD BOT CHORD

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

REACTIONS. All bearings 32-0-0. Max Horz 2=-168(LC 6)

(lb) -

Max Uplift All uplift 100 lb or less at joint(s) 2, 27, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21, 20, 18 All reactions 250 lb or less at joint(s) 2, 26, 27, 28, 29, 30, 31, 25, 24, 23, 22, 21, 18 except Max Grav 32=310(LC 17), 20=310(LC 18)

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=40ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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 1.5x4 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 27, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21, 20, 18.

![](_page_21_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 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 <u>ANS/TPH1</u> Quality Criteria, DSB-89 and BCSI Building Component 
 Satisfy for the second secon

![](_page_22_Figure_0.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/TP11 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

![](_page_23_Figure_0.jpeg)

## LUMBER-

 TOP CHORD
 2x4 SP No.2 or 2x4 SPF No.2

 BOT CHORD
 2x4 SP No.2 or 2x4 SPF No.2

 WEBS
 2x4 SP No.3

 OTHERS
 2x4 SP No.3

BRACING-TOP CHORD BOT CHORD

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

**REACTIONS.** All bearings 20-0-0.

(lb) - Max Horz 24=237(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 22, 16 except 21=-167(LC 8), 23=-162(LC 8), 17=-167(LC 8), 15=-162(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 21, 22, 17, 16, 15 except 24=263(LC 14), 14=257(LC 13), 20=334(LC 13), 23=252(LC 6), 18=331(LC 14)

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

## NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 14, 22, 16 except (jt=lb) 21=167, 23=162, 17=167, 15=162.

![](_page_23_Figure_21.jpeg)

818 Soundside Road Edenton, NC 27932

![](_page_24_Figure_0.jpeg)

![](_page_24_Figure_1.jpeg)

![](_page_24_Picture_3.jpeg)

![](_page_25_Figure_0.jpeg)

![](_page_25_Picture_1.jpeg)

![](_page_25_Picture_3.jpeg)

![](_page_26_Figure_0.jpeg)

Max Uplift 1=-56(LC 8), 3=-56(LC 8), 4=-11(LC 8) Max Grav 1=158(LC 1), 3=158(LC 1), 4=274(LC 1)

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

## NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60

plate grip DOL=1.603) 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 20.0psf 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, 4.

![](_page_26_Picture_10.jpeg)

![](_page_26_Picture_12.jpeg)

![](_page_27_Figure_0.jpeg)

#### LUMBER-

TOP CHORD 2x4 SP No.3 BOT CHORD 2x4 SP No.3 2x4 SP No.3 WEBS

TOP CHORD BOT CHORD Structural wood sheathing directly applied or 5-4-1 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-4-1, 3=5-4-1, 4=5-4-1 Max Horz 1=-34(LC 6) Max Uplift 1=-33(LC 8), 3=-33(LC 8), 4=-7(LC 8) Max Grav 1=94(LC 1), 3=94(LC 1), 4=163(LC 1)

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

## NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; 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 20.0psf 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, 4.

![](_page_27_Picture_15.jpeg)

![](_page_27_Picture_17.jpeg)

![](_page_28_Figure_0.jpeg)

Max Uplift 1=-55(LC 8), 3=-55(LC 8), 4=-11(LC 8) Max Grav 1=157(LC 1), 3=157(LC 1), 4=273(LC 1)

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

## NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60

plate grip DOL=1.603) 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 20.0psf 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, 4.

![](_page_28_Picture_10.jpeg)

![](_page_28_Picture_12.jpeg)

![](_page_29_Figure_0.jpeg)

		2-7-13	I	2-7-13	
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 *	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.14 BC 0.08 WB 0.02	DEFL. Vert(LL) n. Vert(CT) n. Horz(CT) 0.0	in (loc) l/defl L/d /a - n/a 999 /a - n/a 999 00 3 n/a n/a	PLATES         GRIP           MT20         244/190
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P			Weight: 17 lb FT = 20%

BRACING-

TOP CHORD

BOT CHORD

## LUMBER-

TOP CHORD 2x4 SP No.3 BOT CHORD WEBS

2x4 SP No.3 2x4 SP No.3

REACTIONS. (size) 1=5-3-9, 3=5-3-9, 4=5-3-9 Max Horz 1=-34(LC 6) Max Uplift 1=-33(LC 8), 3=-33(LC 8), 4=-7(LC 8) Max Grav 1=93(LC 1), 3=93(LC 1), 4=161(LC 1)

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

## NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; 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 20.0psf 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, 4.

![](_page_29_Picture_14.jpeg)

Structural wood sheathing directly applied or 5-3-9 oc purlins.

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

![](_page_29_Picture_16.jpeg)

![](_page_30_Figure_0.jpeg)