

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/17/2021

RELEASE FOR CONSTRUCTION	
AS NOTED ON PLANS REVIEW	
CODES ADMINISTRATION	
LEE'S SUMMIT, MISSOURI	
BY	_
DATE	

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 21-25886 LOT 323 PARK RIDGE

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Pioneer Industries, LLC.

Pages or sheets covered by this seal: E16072519 thru E16072622

My license renewal date for the state of Missouri is December 31, 2021.

Missouri COA: Engineering 001193



Gilbert, Eric

August 20,2021

**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.

,Engineer



Edenton, NC 27932



Edenton, NC 27932

						RELEASE FOR CONSTRUCTION	
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF		
21-25886	42	Roof Special	1	1		LEE'S SUMMIT, MISSOURI	
			Ľ,	'ı	Job Reference	(optional)	
Pioneer Industries, LLC (Mitek), Owensville, MO - 65066, 8.430 s Aug 16 2021 MiTe						k Industresk Inc. Fri Aug 20 15:11:58 2021 Page 2	
		ID:9	nGsdTcR	9lxklZzmNj	yg3EYzCg6m-s	hloHtQoXODmyHhqjh_oCGjXNuX1vc1XSVltl4ylw5l	
NOTES-		DATE					
11) This truss is designed ir	n accordance with the 2018 L	tandard ANSI/FPI 1.					
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.							



August 20,2021

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E 818 Soundside Road Edenton, NC 27932

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						F	RELEASE FOR CONSTRUCTION
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF	K RIDGE	
21-25886	A3	Нір	1	1			LEE'S SUMMIT, MISSOURI
					Job Reference	(optional)	
Pioneer Industries, LLC (Mitek), Owensville, MO - 65066, 8.430 s Aug 16 2021 MiTek							Inc. Fri Aug 20 15:12:00 2021 Page 2
	ZR23?UUC	arDq60GHhppghAwNWdqwpE_Nyylw5j					
NOTES- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.							DATE



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							RELEASE FOR CONSTRUCTION
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF	K RIDGE	CODES ADMINISTRATION
21-25886	A5	Roof Special Girder	1	1			LEE'S SUMMIT, MISSOURI
					Job Reference	(optional)	
Pioneer Industries, LLC	(Mitek), Owensvil	lle, MO - 65066,		8.430 s Au	g 16 2021 MiTe	k Industre	🛠 Inc. Fri Aug 20 15:12:05 2021 Page 2
			ID:9nGsdTcR	9lxklZzmNyg	3EYzCg6m-97	JRIGVBuY	Y6mIMkAdfcR_IWhmiu_2q3Z35yl2Aylw5e
NOTES- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.						DATE	
11) WARNING: The fol at 33-10-4 from the	lowing hangers are m	nanually applied but fail due to geometric conside	erations: NAILED o	n back face	e at 32-10-9 fro	om the lef	tend, NAILED on book food

- 12) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 13) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-4=-61, 4-8=-71, 8-9=-61, 9-10=-71, 10-11=-61, 17-24=-20, 16-29=-20

Concentrated Loads (lb)

Vert: 10=-46(B) 13=-35(B) 12=-29(B)



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



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Continued on page 2

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						RELEASE FOR CONSTRUCTION
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF	
					1	CODES ADMINISTRA E16072526
21-25886	A8	Roof Special Girder	1	1		LEE'S SUMMIT, MISSOURI
					Job Reference	(optional)
Pioneer Industries, LLC (Mitek), Owensville, MO - 65066, 8.430 s Aug 16 2021 MiTe						k Industresk Inc. Fri Aug 20 15:12:11 2021 Page 2
ID:9nGsdTcR9lxklZzmNyg3EYzCg6m+						j0JayTOsw0HBKzvjrD0mky7xzSVjSS0P3Fqylw5Y
NOTEC					-	

NOTES

12) WARNING: The following hangers are manually applied but fail due to geometric considerations: NAILED on back face at 4-1-13 from the left end, NAILED on back face at 5-0-8 from the left end, NAILED on back face at 7-0-8 from the left end, NAILED on back face at 8-9-7 from the left end, NAILED on back NAILED on back face at 13-0-8 from the left end, NAILED on back face at 15-0-8 from the left end, NAILED on back face at 17-0-8 from the left end, NAILED on back face at 19-0-8 from the left end, NAILED on back face at 21-0-8 from the left end.

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

14) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf) Vert: 1-3=-61, 3-8=-71, 8-10=-61, 10-11=-61, 12-22=-20

Concentrated Loads (lb)

Vert: 20=27(B) 16=-29(B) 30=64(B) 31=64(B) 32=64(B) 33=-31(B) 34=-29(B) 35=-29(B) 36=-54(B) 37=-57(B)



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

2-3=-1254/330, 3-4=-1001/285, 4-5=-1001/285, 5-6=-1254/330 TOP CHORD

BOT CHORD 10-11=-545/1976. 9-10=-545/1976

- 2-12=-1029/269, 2-11=-265/1019, 3-11=-111/422, 4-11=-1083/330, 4-10=-116/532,
- 4-9=-1083/330, 5-9=-111/422, 6-9=-266/1019, 6-8=-1029/261

# NOTES-

WFBS

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=282.8=260.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord. 10) Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 4-7-0 from
- the left end to 12-7-0 to connect truss(es) to back face of bottom chord.
- 11) Fill all nail holes where hanger is in contact with lumber.
- 12) 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

#### Continued on page 2

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fabrication, storage, delivery, erection and bracing of trusses sand truss systems, see
MISUTPI Quality Criteria, DSB-89 and BCSI Building Component
Safety Information
available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



August 20,2021



						RELEASE FOR CONSTRUCTION
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF	
21-25886	B1	Hip Girder	1	1		LEE'S SUMMIT, MISSOURI
					Job Reference	(optional)
Pioneer Industries, LLC	C (Mitek), Owensvil	lle, MO - 65066,		8.430 s Au	ıg 16 2021 MiTe	k Industresk, Inc. Fri Aug 20 15:12:12 2021 Page 2
			ID:9nGsdTcR9lxkl	ZzmNyg3E	YzCg6m-STb5	faaEh_neQmWXdE4mDlxLXErBxnbgg8coGylw5X
LOAD CASE(S) Star	ndard	en-1 15. Plate Increase-1 15				DATE

э, Uniform Loads (plf) Vert: 1-3=-61, 3-5=-71, 5-7=-61, 13-16=-20

Concentrated Loads (lb)

Vert: 10=-161(B) 21=-161(B) 22=-161(B) 23=-161(B) 24=-161(B)



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0-11-0	5-1-5 4-2-5	<u>12-0-11</u> 6-11-6	<u> </u>	4		
Plate Offsets (X,Y) [3:0-3-0	,0-2-3], [4:0-3-0,0-2-3]					
LOADING (psf)           TCLL (roof)         20.0           Snow (Pf/Pg)         20.4/20.0           TCDL         15.0           BCLL         0.0 *           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	<b>CSI.</b> TC 0.68 BC 0.30 WB 0.17 Matrix-MS	DEFL.         in         (lor           Vert(LL)         -0.05         7           Vert(CT)         -0.11         7           Horz(CT)         0.01	c) l/defl L/d 8 >999 240 8 >999 180 6 n/a n/a	<b>PLATES</b> MT20 Weight: 87 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER-		BRAC	ING- HORD Structural wo	ood sheathing directly applie	ed or 6-0-0 oc purlin	is except

BOT CHORD 2x4 SP No 1 2-0-0 oc purlins (5-6-0 max.): 3-4. BOT CHORD WFBS 2x4 SP No 2 Rigid ceiling directly applied or 6-0-0 oc bracing. REACTIONS. 6=Mechanical, 9=0-3-8 (size)

Max Horz 9=-69(LC 12) Max Uplift 6=-108(LC 14), 9=-148(LC 14) Max Grav 6=690(LC 2), 9=793(LC 2)

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

TOP CHORD 2-3=-812/165, 3-4=-674/186, 4-5=-853/175

BOT CHORD 7-8=-111/625

WFBS 5-6=-662/140, 5-7=-94/682, 2-9=-743/208, 2-8=-103/602

# NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-1-5, Exterior(2R) 5-1-5 to 9-4-4, Interior(1) 9-4-4 to 12-0-11, Exterior(2E) 12-0-11 to 16-5-12 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=108, 9=148.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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21-25886 E	34	Roof Special	<sub>1</sub>	2		LEE'S SUMMIT, MISSOURI	
·		·			Job Reference	(optional)	
Pioneer Industries, LLC (Mitek), Owensville, MO - 65066, 8.430 s Aug 16 2021 MiT						k Industres Inc. Fri Aug 20 15:12:23 2021 Page 2	
		XQjTf4NDS76egRxgjYGnHz?7GzHDCuJih7ylw5M					
NOTES-		DATE					
12) This truss is designed in	accordance with the 2018 l.	and referenced	Tandard ANSI/TPI 1.				
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RENCO



ENGINEERING BY REALIZED A MITEK Affiliate 818 Soundside Road Edenton, NC 27932

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A MITEK Atfiliate 818 Soundside Road Edenton, NC 27932

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ponent B18 Soundside Road Edenton, NC 27932

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ENGINEERING BY EREPACED A MITEK Atfiliate 818 Soundside Road Edenton, NC 27932

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LUMBER-BRACING-Structural wood sheathing directly applied or 6-0-0 oc purlins, TOP CHORD 2x4 SP No.1 TOP CHORD BOT CHORD 2x4 SP No.1 \*Except\* except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5. 12-13,7-9: 2x4 SP No.2 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: WEBS 2x4 SP No.2 6-0-0 oc bracing: 6-7. OTHERS 2x4 SP No.2

REACTIONS. (size) 14=0-3-8, 19=0-3-0 Max Horz 14=159(LC 11) Max Uplift 14=-131(LC 14), 19=-159(LC 11) Max Grav 14=723(LC 2), 19=577(LC 2)

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

TOP CHORD 2-3=-814/175. 3-4=-584/201. 4-5=-534/150

BOT CHORD 2-12=-124/526, 11-12=-283/594, 10-11=-199/534

WEBS 5-10=-169/617, 2-14=-699/239, 4-10=-358/157, 5-19=-647/179

#### NOTES-

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 6-7-5, Exterior(2R) 6-7-5 to 10-10-4, Interior(1) 10-10-4 to 14-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 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.
- 7) Bearing at joint(s) 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=131, 19=159.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 20,2021

818 Soundside Road Edenton, NC 27932

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						F	RELEASE FOR CONSTRUCTION	
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF	K RIDGE	CODES ADMINISTRATION	
21-25886	B17	Half Hip Girder	1	1			LEE'S SUMMIT, MISSOURI	
					Job Reference	(optional)		
Pioneer Industries, L	LC (Mitek), Owensvi	ille, MO - 65066,	8	8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Aug 20 15:12:20 2021 /				
			ID:9nGsdTcR9lx	klZzmNyg	3EYzCg6m-D0	6vOhbM97	ebfN3?INz5veJdlyl3cCmWw414oylw5P	
LOAD CASE(S) St 1) Dead + Snow (ba	andard alanced): Lumber Increa	se=1.15. Plate Increase=1.15					DATE	

- Uniform Loads (plf) Vert: 1-3=-61, 3-6=-71, 13-15=-20, 10-12=-20, 7-8=-20
- Concentrated Loads (lb)

Vert: 19=-161(F) 20=-161(F) 21=-161(F) 22=-161(F) 23=-161(F)



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- 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) 11, 12, 9, 8.
- 10) Non Standard bearing condition. Review required.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-1-12, Exterior(2R) 5-1-12 to 8-1-12, Interior(1) 8-1-12 to 10-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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) 8, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-1-12, Exterior(2R) 5-1-12 to 8-1-12, Interior(1) 8-1-12 to 9-2-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

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) 5, 7.

7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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	ŀ		3-8-12			4-2-12					
LOADING (psf) TCLL (roof) 20.0 Snow (Pf/Pg) 15.4/20.0 TCDL 15.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/	2-0-0 1.15 1.15 YES TPI2014	CSI. TC BC WB Matri	0.28 0.11 0.05 x-MP	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.02 0.00	(loc) 4-5 4-5 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 45 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER-				В	RACING-						

TOP CHORD

BOT CHORD

# LUMBER-

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

REACTIONS. (size) 4=0-3-8, 6=0-1-8 Max Horz 6=-92(LC 12)

Max Uplift 4=-55(LC 14), 6=-53(LC 14) Max Grav 4=345(LC 2), 6=345(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 1-2=-282/126, 2-3=-291/120, 1-6=-322/150 TOP CHORD WEBS 3-4=-310/150

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 3-8-12, Exterior(2R) 3-8-12 to 6-8-12, Interior(1) 6-8-12 to 7-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

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) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 6.

9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

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

except end verticals.

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						RELEASE FOR CONSTRUCTION
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF	
21-25886	CJ1	Diagonal Hip Girder	1	1		LEE'S SUMMIT, MISSOURI
					Job Reference	(optional)
Pioneer Industries, LLC (Mit	ek), Owensville, MO - 65	066,		8.430 s Au	g 16 2021 MiTe	ek Industres, Inc. Fri Aug 20 15:12:32 2021 Page 2
			ID:9nGsdTcR9lx	klZzmNyg	3EYzCg6m-sJp	pQVq7XrWx1VIMiqbnaR8M3b1gt7CXHo_gV6yIw5D
LOAD CASE(S) Standard	1					DATE

Uniform Loads (plf) Vert: 1-3=-61, 4-6=-20 Concentrated Loads (lb) Vert: 9=-7(F) 10=187(B)



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REACTIONS. (size) 4=Mechanical, 5=0-5-13, 3=Mechanical Max Horz 5=75(LC 12)

Max Uplift 4=-59(LC 9), 5=-139(LC 12), 3=-55(LC 12) Max Grav 4=88(LC 51), 5=370(LC 16), 3=151(LC 16)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. WEBS 2-5=-399/118

## NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 3 except (jt=lb) 5=139.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) WARNING: The following hangers are manually applied but fail due to geometric considerations: NAILED on front face at 2-10-14 from the left end, NAILED on front face at 5-4-14 from the left end, NAILED on back face at 2-11-15 from the left end.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 11) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf) Vert: 1-3=-61, 4-6=-20 Concentrated Loads (lb) Vert: 10=65(F=70, B=-5) 11=-40(F)



August 20,2021



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- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 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 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 3, 2.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) WARNING: The following hangers are manually applied but fail due to geometric considerations: NAILED on front face at 1-5-9 from the left end, NAILED on back face at 1-4-9 from the left end, NAILED on back face at 3-10-9 from the left end.
- 11) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 12) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf) Vert: 1-2=-61, 3-4=-20

Concentrated Loads (lb) Vert: 5=26(F=-44, B=70) 6=-39(B)



August 20,2021



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BOT CHORD

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

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

REACTIONS. (size) 4=Mechanical, 5=0-5-13

Max Horz 5=74(LC 12)

Max Uplift 4=-61(LC 12), 5=-120(LC 12) Max Grav 4=162(LC 16), 5=402(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. WEBS 2-5=-418/121

## NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=120.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) WARNING: The following hangers are manually applied but fail due to geometric considerations: NAILED on front face at 3-1-6 from the left end, NAILED on back face at 3-5-11 from the left end.
- 10) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 11) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf) Vert: 1-3=-61, 4-6=-20 Concentrated Loads (lb) Vert: 9=-7(F) 10=42(B)



August 20,2021



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TCDL BCLL BCDL	15.0 0.0 * 10.0	Rep Stress Incr NO Code IRC2018/TPI2014	WB 0.04 Matrix-MP	Horz(CT)	0.00	n/a n/	a Weight: 21 lb	FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS	2x4 SP No.1 2x4 SP No.1 2x4 SP No.2		<b>В</b> Т В	RACING- OP CHORD S OT CHORD R	tructural wood igid ceiling dire	sheathing dire	ectly applied or 5-3-15 oc purl r 10-0-0 oc bracing.	ins.
REACTIONS.	(size) 4=N Max Horz 5=6 Max Uplift 4=-6 Max Grav 4=1	/lechanical, 5=0-5-13 7(LC 12) 61(LC 12), 5=-140(LC 12) 17(LC 16), 5=324(LC 16)						
FORCES. (II WEBS	o) - Max. Comp./M 2-5=-372/92	Max. Ten All forces 250 (lb) or less exc	ept when shown.					
NOTES- 1) Wind: ASC II; Exp C; E plate grip D 2) TCLL: ASC DOL=1.15) 3) Unbalanced 4) This truss f	E 7-16; Vult=115r nclosed; MWFRS OL=1.60 E 7-16; Pr=20.0 p ; Is=1.0; Rough C d snow loads have as been designed	mph (3-second gust) Vasd=91mph; TCDI 6 (directional); cantilever left and right exp osf (roof LL: Lum DOL=1.15 Plate DOL= cat C; Partially Exp.; Ce=1.0; Cs=1.00; Cf e been considered for this design. d for a 10.0 psf bottom chord live load no	L=6.0psf; BCDL=3.0psf; posed ; end vertical left a 1.15); Pg=20.0 psf; Pf=1 =1.10 pnconcurrent with any oth	h=25ft; B=45ft; L=2 ind right exposed; L 5.4 psf (Lum DOL=1 ner live loads.	4ft; eave=4ft; ( umber DOL=1 I.15 Plate	Cat. .60		
5) ^ I his truss will fit betw	has been design	led for a live load of 20.0pst on the bottor	m chord in all areas whei	e a rectangle 3-6-0	tall by 2-0-0 w	lide		

- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=140.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) WARNING: The following hangers are manually applied but fail due to geometric considerations: NAILED on front face at 2-7-12 from the left end, NAILED on back face at 2-10-14 from the left end.
- 10) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 11) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf) Vert: 1-3=-61, 4-6=-20 Concentrated Loads (lb) Vert: 9=113(F=42, B=70)



August 20,2021

ENGINEERING BY CREENCOD A MITek Affiliate 818 Soundside Road Edenton, NC 27932

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REACTIONS. (size) 4=Mechanical, 5=0-5-13

Max Horz 5=67(LC 12) Max Uplift 4=-64(LC 12), 5=-149(LC 12)

Max Grav 4=111(LC 16), 5=315(LC 16)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. WEBS 2-5=-379/89

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=149.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) WARNING: The following hangers are manually applied but fail due to geometric considerations: NAILED on front face at 2-10-14 from the left end, NAILED on back face at 2-7-12 from the left end.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 11) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf) Vert: 1-3=-61, 4-6=-20 Concentrated Loads (lb) Vert: 9=127(F=70, B=56)



August 20,2021



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A MITEK Atfiliate B18 Soundside Road Edenton, NC 27932

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						RELEASE FOR CONSTRUCTION
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF	KRIDGE CODES ADMINISTRATION
21-25886	D2	DUAL RIDGE GABLE	1	1		LEE'S SUMMIT, MISSOURI
					Job Reference	(optional)
Pioneer Industries, LL	C (Mitek), Owensvi	lle, MO - 65066,		8.430 s A	ug 16 2021 MiTe	k Industres Inc. Fri Aug 20 15:12:39 2021 Page 2
			ID:9nGsdTcR9lxklZz	mNyg3EY	zCg6m-9gkluuv	/t_OyNaKjcoDQMwwWKPMG08MZuNBYFCylw56
NOTES-			DATE			
11) Hanger(s) or othe	er connection device(s)	shall be provided sufficient to support concent	rated load(s) 50 lb do	wn and 7	6 lb up at 30-6	-2 on bottom chord. The

12) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf) Vert: 1-6=-61, 6-14=-61, 30-35=-20

Concentrated Loads (lb)

Vert: 18=-34(B) 16=-34(B) 15=-6(B) 19=-34(B) 17=-34(B) 40=-63(B)



August 20,2021

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August 20,2021







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#### Continued on page 2

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						RELEASE FOR CONSTRUCTION
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF	
21-25886	D5	GABLE	1	1		LEE'S SUMMIT, MISSOURI
					Job Reference	(optional)
Pioneer Industries, LLC (Mite	k), Owensville, MO - 650	166,	i.	8.430 s Au	g 16 2021 MiTe	k Industres: Inc. Fri Aug 20 15:12:42 2021 Page 2
		ID:9nGsdTu	cR9lxklZzi	mNyg3EYz	Cg6m-aEPRW	vyOAvmWE23Hlwm7_YY5ldY5Da30aLPCsXylw53
NOTES-						DATE
12) Hanger(s) or other conn	vection device(s) shall be pro	12 71 lb down and 34 lb up at 3-2-4,				
71 lb down and 24 lb un	at 5.2.4.71 lb down and 2	1 lb up at 7.2.4.71 lb down and 24 lb up at 0.4	2 / 71 lb	down and	124 lb up of 1	1 2 74 lb down and 24 lb up at

Ib down and 34 lb up at 7-2 -4. 71 lb down and 34 lb up at 9-2-4. 71 lt 13-2-4, 71 lb down and 34 lb up at 15-2-4, and 71 lb down and 34 lb up at 17-2-4, and 71 lb down and 34 lb up at 19-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

## LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-6=-61, 6-11=-61, 1-11=-20

Concentrated Loads (lb)

Vert: 22=-71 23=-71 24=-71 25=-71 26=-71 27=-71 28=-71 29=-71 30=-71 31=-71



August 20,2021

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						RELEASE FOR CONSTRUCTION
Job	Truss	Truss Type	Qty F	Ply	LOT 323 PAF	KRIDGE CODES ADMINISTRATION
21-25886	E1	Hip Girder	1	1		LEE'S SUMMIT, MISSOURI
					Job Reference	(optional)
Pioneer Industries, LLC (	Mitek), Owensville	e, MO - 65066,	8.4	430 s Au	g 16 2021 MiTe	k Industresk Inc. Fri Aug 20 15:12:45 2021 Page 2
			ID:9nGsdTcR9lxklZz	zmNyg3E	EYzCg6mp5Z	3y_HTq855Vnsz2KqcBAVaqTuQnBSGJesSsylw50
LOAD CASE(S) Stand 1) Dead + Snow (baland	e=1.15, Plate Increase=1.15				DATE	

Uniform Loads (plf) Vert: 1-4=-61, 4-7=-71, 7-10=-61, 20-23=-20

Concentrated Loads (lb)

Vert: 18=-207(B) 12=-207(B) 30=-155(B) 31=-30(B) 32=-30(B) 33=-30(B) 34=-30(B) 35=-30(B) 35=-30(



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- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads
- 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 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=241, 8=218.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 20,2021

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to 17-6-11, Interior(1) 17-6-11 to 30-0-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate

DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

4) Unbalanced snow loads have been considered for this design.

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 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.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=202, 7=219.

8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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6) \* 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.

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

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=241, 7=202.

9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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onent 818 Soundside Road Edenton, NC 27932

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- TOP CHORD 2-3=-1974/409, 3-4=-2219/488, 4-5=-1445/377, 5-6=-1518/375, 6-7=-1956/389
- BOT CHORD 12-13=-198/1197 10-12=-234/1552 9-10=-280/1695
- WFBS 2-13=-1592/349, 2-12=-175/1059, 3-12=-1206/282, 4-10=-664/187, 5-10=-215/931, 6-10=-562/172, 7-8=-1231/263, 7-9=-282/1707, 4-12=-143/830

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 15-5-3, Exterior(2R) 15-5-3 to 18-5-3, Interior(1) 18-5-3 to 28-8-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) Provide adequate drainage to prevent water ponding.
- 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 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.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 13.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=203. 8=200.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 20,2021

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Edenton, NC 27932

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



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 Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-3=-61, 3-5=-61, 6-10=-20

Concentrated Loads (lb)

Vert: 8=-1136(F) 11=-1143(F) 12=-1139(F) 13=-1139(F) 14=-1145(F) 15=-1147(F) 16=-1148(F)



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□-11-0 1-0-12 0-11-0 0-1-12 Plate Offsets (X,Y) [3:0-3-0,0]	5-0-12 4-0-0 D-2-3], [4:0-3-0,0-2-3]	10-9-4 5-8-8	l	14-9-4 4-0-0	14 <sub>1</sub> 11-0 0-1-12 0-11-/	<u></u>
LOADING (psf) TCLL (roof) 20.0 Snow (Pf/Pg) 20.4/20.0 TCDL 15.0 BCLL 0.0 * BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCodeIRC2018/TPI2014	CSI.DEFL.TC0.42Vert(LL)BC0.22Vert(CT)WB0.12Horz(CT)Matrix-MSHorz(CT)	in (loc) l/defl -0.04 9 >999 ) -0.06 8-9 >999 Γ) 0.01 7 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 73 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1 WEBS 2x4 SP No.2		BRACING- TOP CHORD BOT CHORD	Structural wood sheathir 2-0-0 oc purlins (6-0-0 r Rigid ceiling directly app 10-0-0 oc bracing: 8-9.	ng directly applied nax.): 3-4. lied or 6-0-0 oc bra	or 6-0-0 oc purlin acing, Except:	s, except

REACTIONS. (size) 10=0-3-8, 7=0-3-8 Max Horz 10=73(LC 13) Max Uplift 10=-136(LC 14), 7=-111(LC 14) Max Grav 10=713(LC 2), 7=713(LC 2)

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

TOP CHORD 2-3=-693/158, 3-4=-519/165, 4-5=-693/158

BOT CHORD 8-9=-71/519

WFBS 2-10=-663/202, 2-9=-100/500, 5-8=-101/500, 5-7=-663/202

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-0-12, Exterior(2R) 5-0-12 to 9-3-11, Interior(1) 9-3-11 to 10-9-4, Exterior(2R) 10-9-4 to 14-9-4, Interior(1) 14-9-4 to 15-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=136, 7=111.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 20,2021



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

						RELEASE FOR CONSTRUCTION		
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF			
21-25886	F4	Hip Girder	1	1		LEE'S SUMMIT, MISSOURI		
					Job Reference	(optional)		
Pioneer Industries, LLC (Mite	ek), Owensville, MO - 650	)66,		8.430 s Aug 16 2021 MiTek Industr <mark>es</mark> y Inc. Fri Aug 20 15:13:01 2021 Page 2				
			ID:9nGsdTcR9	ID:9nGsdTcR9lxklZzmNyg3EYzCg6m-WucVQAJil9q0y0xvPcaFZqK7H_zA99pxoWi0w				
LOAD CASE(S) Standard	l ): Lumber Increase=1 15. Pla	te Increase=1 15				DATE		

Uniform Loads (plf) Vert: 1-3=-61, 3-5=-71, 5-7=-61, 13-16=-20

Concentrated Loads (lb) Vert: 11=-137(B) 10=-157(B) 9=-137(B) 19=-157(B) 20=-157(B) 21=-157(B) 22=-157(B)



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BCLL BCDL	0.0 * 10.0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.09 Matrix-S	Horz(CT)	-0.00	8	n/a	n/a	Weight: 61 lb	FT = 20%
LUMBER-			BF	RACING-						
TOP CHORD	2x4 SP No.1		TC	P CHORD	Structural	wood s	sheathin	g directly app	blied or 10-0-0 oc purlins,	
WEBS	2x4 SP N0.1 2x4 SP No.2		BC		Pigid ceilin	a vertic	ais. Mu anni	ied or 6-0-0 (	oc bracing	
OTHERS	2x4 SP No.2				Ttigiu ceilli	iy unet	siy appi		be bracing.	
WEDGE										

Left: 2x4 SP No.2

REACTIONS. All bearings 11-2-0.

(lb) - Max Horz 13=113(LC 13)

Max Uplift All uplift 100 lb or less at joint(s) 12, 13, 10, 9 except 8=-110(LC 24) Max Grav All reactions 250 lb or less at joint(s) 8, 12, 10 except 11=295(LC 2), 13=293(LC 2), 9=275(LC 24)

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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 6-5-0, Corner(3R) 6-5-0 to 9-5-0, Exterior(2N) 9-5-0 to 11-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 5) All plates are 1.5x5 MT20 unless otherwise indicated.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 13, 10, 9 except (jt=lb) 8=110.
- 10) Non Standard bearing condition. Review required.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD	2x4 SP No.1		2-0-0 oc purlins (6-0-0 max.): 4-6.
OTHERS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 9-9-2.

(lb) - Max Horz 1=-168(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 9 except 10=-190(LC 14), 8=-194(LC 14) Max Grav All reactions 250 lb or less at joint(s) 1, 7, 9 except 10=338(LC 23), 8=307(LC 24)

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

WEBS 2-10=-315/235, 5-8=-318/240

### NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-4 to 3-3-4, Interior(1) 3-3-4 to 3-10-9, Exterior(2E) 3-10-9 to 4-10-10, Interior(1) 4-10-10 to 7-0-7, Exterior(2E) 7-0-7 to 9-5-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Provide adequate drainage to prevent water ponding.
- 5) Gable requires continuous bottom chord bearing.
- 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 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.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 9 except (jt=lb) 10=190, 8=194.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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LUMBER-		BF	RACING-			
TOP CHORD	2x4 SP No.1	TC	OP CHORD	2-0-0 oc purlins: 1-4, ex	cept end verticals	i.
BOT CHORD	2x4 SP No.1	BC	DT CHORD	Rigid ceiling directly app	lied or 6-0-0 oc br	racing.
WEBS	2x4 SP No.2	W	EBS	1 Row at midpt	1-7	
OTHERS	2x4 SP No.2					

REACTIONS.

All bearings 5-10-11. (lb) -Max Horz 7=-229(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 6, 5 except 7=-135(LC 12), 4=-163(LC 14) Max Grav All reactions 250 lb or less at joint(s) 7, 4, 6, 5

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

BOT CHORD 6-7=-305/297, 5-6=-308/295, 4-5=-308/287

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 3) Provide adequate drainage to prevent water ponding.
- 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 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 5 except (jt=lb) 7=135, 4=163.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 4, 6, 5.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



August 20,2021



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Edenton, NC 27932



1.5x5 || 1.5x5 || 1.5x5 || 3x4 =

7-4-14 7-4-14

Plate Offsets (	X,Y) [6:Edge,0-	1-8], [7:Edge,0-1-8]						
LOADING (ps TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	f) 20.0 20.4/20.0 15.0 0.0 * 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	<b>CSI.</b> TC 0.48 BC 0.23 WB 0.45 Matrix-S	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) n/a - n/a - -0.00 7	l/defl L/d n/a 999 n/a 999 n/a n/a	PLATES MT20 Weight: 61 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS OTHERS	2x4 SP No.1 2x4 SP No.1 2x4 SP No.1 2x4 SP No.2		BF TC BC WI	RACING- OP CHORD OT CHORD EBS	Structural wood except end vertio Rigid ceiling dire 1 Row at midpt	sheathing directly app cals, and 2-0-0 oc pur ctly applied or 10-0-0 6-7	plied or 6-0-0 oc purlir rlins (6-0-0 max.): 5-6 ) oc bracing.	ns,
REACTIONS.	All bearings 7-4	-14.						

(lb) - Max Horz 1=357(LC 13)

Max Uplift All uplift 100 lb or less at joint(s) 7 except 1=-315(LC 12), 10=-139(LC 14), 9=-195(LC 14), 8=-168(LC 11)

Max Grav All reactions 250 lb or less at joint(s) 7, 10 except 1=409(LC 11), 9=256(LC 23), 8=298(LC 23)

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

TOP CHORD 1-2=-848/839, 2-3=-672/674, 3-4=-488/514

WEBS 2-10=-258/202, 3-9=-368/312, 4-8=-506/412

NOTES-

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-4 to 3-1-11, Interior(1) 3-1-11 to 6-5-3, Exterior(2E) 6-5-3 to 7-3-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Provide adequate drainage to prevent water ponding.
- 5) Gable requires continuous bottom chord bearing.
- 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 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 1=315, 10=139, 9=195, 8=168.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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



August 20,2021





- surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4. 4) Provide adequate drainage to prevent water ponding
- 5) All plates are 1.5x5 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 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) 1, 28, 27, 26, 25, 23, 22, 21, 20, 18, 17 except (jt=lb) 24=105, 16=102.
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 28, 27, 26, 25.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



818 Soundside Road

Edenton, NC 27932



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Edenton, NC 27932



- 3) TCLE: ASCE 7-16; Pr=20.0 pst (root LE: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 pst; Pr=15.4 pst (Lum DOL=1.16 DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=211, 6=211.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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818 Soundside Road Edenton, NC 27932



TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. All bearings 15-6-13.

Max Horz 1=-161(LC 12) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 1, 14, 13, 12, 11 except 15=-100(LC 14), 10=-100(LC 14) All reactions 250 lb or less at joint(s) 1, 9, 14, 13, 12, 11 except 15=252(LC 23), 10=251(LC 24) Max Grav

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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-4-9 to 3-4-9, Interior(1) 3-4-9 to 7-9-7, Exterior(2R) 7-9-7 to 10-9-7, Interior(1) 10-9-7 to 15-2-5 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) All plates are 1.5x5 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 14, 13, 12, 11 except (jt=lb) 15=100, 10=100.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

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

August 20,2021





BCDL	10.0	Code IRC2018/TPI2	2014	Matri	к-Р <b>F</b>	RACING-					Weight: 45 lb	FT = 20%	%
Snow (Pf/Pg) TCDL	20.4/20.0 15.0	Plate Grip DOL Lumber DOL Rep Stress Incr	1.15 1.15 YES	TC BC WB	0.42 0.03 0.05	Vert(LL) Vert(CT) Horz(CT)	n/a n/a -0.00	- - 5	n/a n/a n/a	999 999 n/a	MT20	244/190	
TCLL (roof)	20.0	SPACING-	2-0-0	CSI.		DEFL.	ın	(loc)	l/defl	L/d	PLATES	GRIP	

TOP CHORD

BOT CHORD

2-0-0 oc purlins: 1-5, except end verticals.

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

### LUMBER-

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

REACTIONS. All bearings 7-2-15.

(lb) Max Horz 9=-170(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 9, 5, 8, 7, 6

Max Grav All reactions 250 lb or less at joint(s) 9, 5, 8, 7, 6

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 1.5x5 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 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 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 5, 8, 7, 6. 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 5, 8, 7, 6.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



August 20,2021





12 11 4x6 1/ 3x4 ||

	0-9-14 0-9-14	<u>9-2-15</u> 8-5-1							
LOADING (psf) TCLL (roof) 20.0 Snow (Pf/Pg) 20.4/20.0 TCDL 15.0 BCLL 0.0 * BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	<b>CSI.</b> TC 0.37 BC 0.13 WB 0.10 Matrix-S	DEFL. Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 6	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 62 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER-		BR	ACING-						

TOP CHORD

BOT CHORD

### LUMBER-

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

REACTIONS. All bearings 9-2-15.

(lb) -Max Horz 12=-205(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 12, 6, 11, 10, 9, 8, 7 Max Grav All reactions 250 lb or less at joint(s) 12, 6, 11, 10, 9, 8, 7

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

### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 1.5x5 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 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 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.
- 8) Bearing at joint(s) 12, 6, 11, 10, 9, 8, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 6, 11, 10, 9, 8,
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6, 10, 9, 8, 7.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

OF MISSO TE ERIC A. GILBERT NUMBER PE-2011030168 C SSIONAL

August 20,2021

818 Soundside Road Edenton, NC 27932

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

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



- exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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.
- Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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818 Soundside Road Edenton, NC 27932



TOP CHORD

BOT CHORD

## LUMBER-

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

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

Max Horz 5=51(LC 16) Max Uplift 4=-29(LC 16), 5=-39(LC 16)

Max Grav 4=80(LC 20), 5=247(LC 20)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

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

August 20,2021





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

Max Horz 5=40(LC 14) Max Uplift 4=-30(LC 24), 5=-28(LC 14)

Max Grav 4=13(LC 12), 5=194(LC 2)

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

## NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 20,2021





- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 5, 8.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.







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

Max Horz 5=36(LC 16)

Max Uplift 4=-17(LC 13), 5=-41(LC 16) Max Grav 4=24(LC 14), 5=214(LC 20)

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

### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 20,2021





0-11-0	2-1-8	
0-11-0	1-2-8	

Plate Offsets (X,Y) [2:0-3-8,	Edge]							
LOADING (psf)           TCLL (roof)         20.0           Snow (Pf/Pg)         15.4/20.0           TCDL         15.0           BCLL         0.0 *           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.33 BC 0.34 WB 0.06 Matrix-MP	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) 0.00 5-6 0.00 5-6 0.00	l/defl >999 >999 n/a	L/d 240 180 n/a	<b>PLATES</b> MT20 Weight: 15 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1 WEBS 2x4 SP No.2 WEDGE Left: 2x4 SP No.2		BF TC BC	RACING- DP CHORD S DT CHORD F	Structural wood Rigid ceiling dire	sheathing	g directly app ied or 10-0-0	blied or 2-1-8 oc purlir oc bracing.	IS.
REACTIONS. (size) 5=M Max Horz 6=1 Max Uplift 5=-3 Max Grav 5=20	echanical, 6=0-3-8 13(LC 14) i75(LC 2), 6=-333(LC 14) j2(LC 14), 6=706(LC 2)							
FORCES.         (lb) - Max. Comp./M           WEBS         3-6=-301/318	lax. Ten All forces 250 (lb) or less exc	ept when shown.						
NOTES- 1) Wind: ASCE 7-16; Vult=115n II; Exp C; Enclosed; MWFRS right exposed ; end vertical le plate grip DOL=1.60 2) TCLL: ASCE 7-16; Pr=20.0 p DOI=1.15): Is=1.0; Rough C	nph (3-second gust) Vasd=91mph; TCD (directional) and C-C Exterior(2E) -2-2- ft and right exposed;C-C for members a sf (roof LL: Lum DOL=1.15 Plate DOL= at C: Partially Exp.: Ce=1.0; Cs=1.0; C	L=6.0psf; BCDL=3.0psf; h 4 to 0-7-1, Interior(1) 0-7- and forces & MWFRS for r 1.15); Pg=20.0 psf; Pf=15 t=1 10	n=25ft; B=45ft; L=2 1 to 1-11-12 zone reactions shown; L .4 psf (Lum DOL=	24ft; eave=4ft; ; cantilever left Lumber DOL=1 =1.15 Plate	Cat. and .60			

- 3) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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 100 lb uplift at joint(s) except (jt=lb) 5=375, 6=333.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.







#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_87_Picture_9.jpeg)

August 20,2021

![](_page_87_Picture_12.jpeg)

![](_page_88_Figure_0.jpeg)

![](_page_88_Picture_1.jpeg)

Plate Offsets (X,Y) [2:0-3-8,	Edge]										
LOADING         (psf)           TCLL (roof)         20.0           Snow (Pf/Pg)         15.4/20.0           TCDL         15.0           BCLL         0.0 *           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	<b>CSI.</b> TC 0.31 BC 0.34 WB 0.05 Matrix-MP	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.01 5-6 0.01 5-6 0.00	l/defl L >999 2 >999 1 n/a r	_/d 40 80 n/a	<b>PLATES</b> MT20 Weight: 19 lb	<b>GRIP</b> 244/190 FT = 20%			
LUMBER- TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1 WEBS 2x4 SP No.2 WEDGE Left: 2x4 SP No.2		BF TC BC	<b>Racing-</b> DP Chord S DT Chord R	tructural wood	sheathing di ectly applied	rectly applie or 10-0-0 oc	ed or 3-1-0 oc purlir c bracing.	s.			
REACTIONS.       (size)       5=Mechanical, 6=0-3-8 Max Horz       6=134(LC 14) Max Uplift         Max Uplift       5=-121(LC 18), 6=-213(LC 14) Max Grav       5=68(LC 14), 6=537(LC 2)         FORCES.       (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.											
<ul> <li>WEBS 3-6=-287/267</li> <li>NOTES-</li> <li>1) Wind: ASCE 7-16; Vult=115n II; Exp C; Enclosed; MWFRS right exposed ; end vertical le plate grip DOL=1.60</li> <li>2) TCLL: ASCE 7-16; Pr=20.0 p DOL=1.15); Is=1.0; Rough Ci</li> <li>3) This truss has been designed non-concurrent with other live</li> <li>4) This truss has been designed vill fit between the bottom ch</li> </ul>	nph (3-second gust) Vasd=91mph; TCDI (directional) and C-C Exterior(2E) -2-2 aft and right exposed;C-C for members a vsf (roof LL: Lum DOL=1.15 Plate DOL= at C; Partially Exp.; Ce=1.0; Cs=1.00; Ci d for greater of min roof live load of 12.0 e loads. d for a 10.0 psf bottom chord live load nc ed for a live load of 20.0psf on the bottor nord and any other members.	L=6.0psf; BCDL=3.0psf; H 4 to 0-7-1, Interior(1) 0-7- ind forces & MWFRS for i 1.15); Pg=20.0 psf; Pf=15 t=1.10 psf or 1.00 times flat roof pnconcurrent with any oth m chord in all areas where	h=25ft; B=45ft; L=2 1 to 2-11-4 zone; c reactions shown; L 5.4 psf (Lum DOL= <sup>2</sup> 1 load of 15.4 psf or er live loads. e a rectangle 3-6-0	24ft; eave=4ft; ( cantilever left a .umber DOL=1. 1.15 Plate n overhangs tall by 2-0-0 w	Cat. nd 60 ide	A	TE OF MIS	Sol			

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

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=121, 6=213.

8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_88_Picture_6.jpeg)

August 20,2021

![](_page_88_Picture_9.jpeg)

![](_page_89_Figure_0.jpeg)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_89_Picture_10.jpeg)

August 20,2021

![](_page_89_Picture_13.jpeg)

![](_page_90_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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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 100 lb uplift at joint(s) 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_90_Picture_11.jpeg)

August 20,2021

![](_page_90_Picture_14.jpeg)

![](_page_91_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 <u>ANS/TP11 Quality Criteria, DSB-89 and BCSI Building Component</u> **Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

August 20,2021

![](_page_91_Picture_3.jpeg)

Edenton, NC 27932

![](_page_92_Figure_0.jpeg)

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

### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_92_Picture_12.jpeg)

August 20,2021

![](_page_92_Picture_15.jpeg)

![](_page_93_Figure_0.jpeg)

Max Grav 4=83(LC 20), 3=83(LC 20)

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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 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 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_93_Figure_13.jpeg)

August 20,2021

![](_page_93_Picture_16.jpeg)

![](_page_94_Figure_0.jpeg)

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

Max Horz 5=44(LC 16)

Max Uplift 4=-24(LC 16), 5=-39(LC 16) Max Grav 4=55(LC 27), 5=230(LC 20)

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

### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_94_Figure_15.jpeg)

August 20,2021

![](_page_94_Picture_18.jpeg)

![](_page_95_Figure_0.jpeg)

3x4 =

		2-0-0 2-0-0							
LOADING (psf)           TCLL (roof)         20.0           Snow (Pf/Pg)         15.4/20.0           TCDL         15.0           BCLL         0.0 *           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.04 BC 0.04 WB 0.00 Matrix-MP	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.00 -0.00 -0.00	(loc) 6 6 1	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 7 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER-		BR	ACING-						

TOP CHORD

BOT CHORD

## LUMBER-

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

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

Max Horz 3=42(LC 15) Max Uplift 1=-11(LC 16), 3=-18(LC 13)

Max Grav 1=91(LC 20), 3=91(LC 20)

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

### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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) Bearing at joint(s) 3 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3. 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.

![](_page_95_Picture_22.jpeg)

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

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

except end verticals.

August 20,2021

![](_page_95_Picture_25.jpeg)

![](_page_96_Figure_0.jpeg)

1-9-13												
LOADING (psf)           TCLL (roof)         20.0           Snow (Pf/Pg)         15.4/20.0           TCDL         15.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.04 BC 0.03 WB 0.01 Matrix-MS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.00 -0.00 0.00	(loc) 4 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 8 lb	<b>GRIP</b> 244/190 FT = 20%			

BRACING-

TOP CHORD

BOT CHORD

## LUMBER-

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

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

Max Horz 4=39(LC 16) Max Uplift 3=-29(LC 16)

Max Grav 4=74(LC 20), 3=74(LC 20)

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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 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 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_96_Picture_18.jpeg)

Structural wood sheathing directly applied or 1-9-13 oc purlins,

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

except end verticals.

August 20,2021

![](_page_96_Picture_21.jpeg)

![](_page_97_Figure_0.jpeg)

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

Actiono. (Si

Max Horz 5=36(LC 16) Max Uplift 4=-17(LC 13), 5=-41(LC 16)

Max Grav 4=22(LC 14), 5=213(LC 20)

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

### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_97_Picture_16.jpeg)

August 20,2021

![](_page_97_Picture_19.jpeg)

![](_page_98_Figure_0.jpeg)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_98_Picture_10.jpeg)

![](_page_98_Picture_12.jpeg)

![](_page_99_Figure_0.jpeg)

## LUMBER-

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

# BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 5-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins; 3-4. Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS. (size) 5=Mechanical, 7=0-3-8, 4=Mechanical

Max Horz 7=90(LC 33) Max Uplift 5=-95(LC 7), 7=-124(LC 10), 4=-33(LC 6)

Max Grav 5=227(LC 1), 7=388(LC 2), 4=78(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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 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.
- Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4 except (jt=lb) 7=124.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- 12) WARNING: The following hangers are manually applied but fail due to geometric considerations: NAILED on front face at 3-3-5 from the left end, NAILED on front face at 3-8-4 from the left end.
- 13) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 14) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-3=-61, 3-4=-71, 5-8=-20

#### Continued on page 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 besign valid to less only with with the contractors. This besign is based only upon parameters and properly incorporate this design into the overall 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/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_99_Picture_29.jpeg)

August 20,2021

![](_page_99_Picture_31.jpeg)

						RELEASE FOR CONSTRUCTION
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF	
21-25886	M18A	Half Hip Girder	2	1		LEE'S SUMMIT, MISSOURI
					Job Reference	(optional)
Pioneer Industries, LLC (Mit	ek), Owensville, I	MO - 65066,	i	8.430 s Au	g 16 2021 MiTe	k Industres Inc. Fri Aug 20 15:13:19 2021 Page 2
			ID:9nGsdTcR9lxkl	ZzmNyg3E	YzCg6mM80	HaOcTHRGAjOPyBxo_LaRsX7aONDS4ctfetylw4U
LOAD CASE(S) Standard	1					DATE

Vert: 6=-225(F)

OF MISSOL JE P ERIC A. GILBERT NUMBER PE-201103010 ER A STORA

August 20,2021

![](_page_100_Picture_4.jpeg)

![](_page_101_Figure_0.jpeg)

Max Horz 4=33(LC 14)

Max Uplift 3=-82(LC 2), 4=-34(LC 14) Max Grav 3=1(LC 10), 4=221(LC 2)

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

### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_101_Picture_12.jpeg)

August 20,2021

![](_page_101_Picture_15.jpeg)

![](_page_102_Figure_0.jpeg)

- grip DOL=1.60 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
  - referenced standard ANSI/TPI 1.

![](_page_102_Picture_10.jpeg)

![](_page_102_Picture_13.jpeg)

![](_page_103_Figure_0.jpeg)

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

Max Horz 5=39(LC 14) Max Uplift 4=-35(LC 24), 5=-28(LC 14)

Max Grav 4=10(LC 12), 5=196(LC 2)

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

## NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_103_Picture_13.jpeg)

August 20,2021

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818 Soundside Road Edenton, NC 27932

![](_page_104_Figure_0.jpeg)

- plate grip DOL=1.60
  2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_104_Picture_8.jpeg)

![](_page_104_Picture_11.jpeg)

![](_page_105_Figure_0.jpeg)

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

Max Horz 5=36(LC 16)

Max Uplift 4=-17(LC 13), 5=-41(LC 16) Max Grav 4=24(LC 14), 5=214(LC 20)

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

### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (Pf=15.4 ps
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_105_Figure_15.jpeg)

August 20,2021

![](_page_105_Picture_18.jpeg)

![](_page_106_Figure_0.jpeg)

TOP CHORD 1-2=-315/176 WEBS 2-5=-363/362

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

![](_page_106_Figure_10.jpeg)

August 20,2021

![](_page_106_Picture_13.jpeg)

![](_page_107_Figure_0.jpeg)

1.5x5 ||

0-11-0

4-9-5 5-7-8 2-9-7

TOP CHORD

BOT CHORD

	0110	1 10 1	1 1 1 1 7	0 10 0				
LOADING (psf) TCLL (roof) 20.0 Snow (Pf/Pg) 20.4/20.0 TCDL 15.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	<b>CSI.</b> TC 0.17 BC 0.15 WB 0.04	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) 0.02 5-6 -0.03 5-6 0.00 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	<b>GRIP</b> 244/190
BCLL 0.0 * BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP	()				Weight: 29 lb	FT = 20%
LUMBER-		BR	ACING-					

## LUMBER-

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

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

Max Horz 6=131(LC 13) Max Uplift 5=-74(LC 11), 6=-65(LC 14)

Max Grav 5=201(LC 23), 6=306(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. WEBS 2-6=-256/252

## NOTES-

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 4-9-5, Exterior(2E) 4-9-5 to 5-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6. 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

![](_page_107_Picture_20.jpeg)

Structural wood sheathing directly applied or 5-7-8 oc purlins,

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

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

August 20,2021

![](_page_107_Picture_23.jpeg)


- grip DOL=1.60 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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.
- Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 20,2021

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#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf;  $Pf=15.4 \text{ ps$
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 20,2021

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#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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						RELEASE FOR CONSTRUCTION
Job	Truss	Truss Type	Qty	Ply	LOT 323 PAF	
						CODES ADMINISTRA EL60 2615
21-25886	T1	Roof Special Girder	1	2		LEE'S SUMMIT, MISSOURI
				<b></b>	Job Reference	(optional)
Pioneer Industries, LLC (Mite	Jioneer Industries, LLC (Mitek), Owensville, MO - 65066, 8.430 s Aug 16 20			g 16 2021 MiTe	k Industresk, Inc. Fri Aug 20 15:13:34 2021 Page 2	
ID:9nGsdTcR9lxklZzmNyg3EYzCg6m-						/5Ria0wuK8T11HLriJ5WizzaFpP19fXR0ygWylw4F

- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced tandard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Use Simpson Strong-Tie MUS26 (6-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent at 4-0-0 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
- 13) Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 10-0-0 oc max. starting at 6-0-0 from the left end to 16-0-0 to connect truss(es) to back face of bottom chord.
- 14) Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 4-0-0 oc max. starting at 28-0-0 from the left end to 34-0-0 to connect truss(es) to back face of bottom chord.
- 15) Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 29-11-4 from the left end to connect truss(es) to back face of bottom chord. 16) Fill all nail holes where hanger is in contact with lumber.

17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 150 lb down and 52 lb up at 0-1-12, 111 lb down and 67 lb up at 2-1-8, 111 lb down and 67 lb up at 4-1-8, and 111 lb down and 67 lb up at 6-1-8, and 122 lb down and 63 lb up at 10-1-8 on top chord, and 557 lb down and 179 lb up at 8-0-0, 557 lb down and 174 lb up at 10-0-0, 557 lb down and 168 lb up at 12-0-0, 557 lb down and 162 lb up at 14-0-0, 553 lb down and 192 lb up at 18-0-0, 557 lb down and 171 lb up at 20-0-0, 557 lb down and 164 lb up at 22-0-0, and 557 lb down and 171 lb up at 24-0-0, and 655 lb down and 184 lb up at 26-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-8=-71, 8-10=-61, 11-22=-20

Concentrated Loads (lb)

Vert: 1=-120 19=-536 12=-639(B) 23=-57 24=-57 25=-57 26=-17 27=-17 32=-1038(B) 33=-572(B) 34=-552 35=-545 36=-526 37=-521(B) 38=-504 39=-521 40=-531 41=-541 42=-641 43=-647(B) 44=-638(B) 45=-635(B)



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	<u>1-4-12</u> 1-4-12	1-7-11 0-2-15	5-10-3 4-2-8			ł		
LOADING (psf)   TCLL (roof) 20.0   Snow (Pt/Pg) 15.4/20.0   TCDL 15.0   BCLL 0.0   BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	CSI. TC 0.26 BC 0.05 WB 0.05 Matrix-MP	DEFL. Vert(LL) 0 Vert(CT) -0 Horz(CT) -0	in (loc) 0.00 4-5 0.00 4-5 0.00 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 33 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER-		BF	ACING-					

TOP CHORD

BOT CHORD

# LUMBER-

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

REACTIONS. (size) 4=Mechanical, 5=0-5-13

Max Horz 5=93(LC 41) Max Uplift 4=-80(LC 9), 5=-134(LC 12)

Max Grav 4=199(LC 16), 5=404(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. WEBS 2-5=-407/141

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=134.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) WARNING: The following hangers are manually applied but fail due to geometric considerations: NAILED on front face at 4-1-11 from the left end, NAILED on back face at 3-5-9 from the left end.
- 10) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 11) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf) Vert: 1-3=-61. 4-6=-20 Concentrated Loads (lb) Vert: 9=39(B) 10=-48(F)



Structural wood sheathing directly applied or 5-10-3 oc purlins,

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

except end verticals

August 20,2021

818 Soundside Road Edenton, NC 27932

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- II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 1-2-15, Interior(1) 1-2-15 to 1-11-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 100 lb uplift at joint(s) 5, 4.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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- 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 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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**REACTIONS.** (size) 1=8-3-10, 3=8-3-10, 4=8-3-10 Max Horz 1=-55(LC 12)

Max Uplift 1=-44(LC 14), 3=-44(LC 14), 4=-16(LC 14) Max Grav 1=183(LC 2), 3=183(LC 2), 4=300(LC 2)

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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-2-3, Exterior(2R) 4-2-3 to 7-2-3, Interior(1) 7-2-3 to 7-10-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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Max Horz 1=-33(LC 12) Max Uplift 1=-26(LC 14), 3=-26(LC 14), 4=-10(LC 14)

Max Grav 1=109(LC 2), 3=109(LC 2), 4=179(LC 2)

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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

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 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.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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3x4 🥢

3x4 📎

BRACING-

TOP CHORD

BOT CHORD

Plate Offsets (X,Y) [2:0-2-0,]	0-0 <u>-</u> 6 0-0 <sup>1</sup> 6 Edge]	2-4-6 2-4-0					
LOADING (psf)   TCLL (roof) 20.0   Snow (Pf/Pg) 15.4/20.0   TCDL 15.0   BCLL 0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code, IRC2018/TPI2014	CSI. TC 0.01 BC 0.02 WB 0.00 Matrix-P	DEFL. in Vert(LL) n/a Vert(CT) n/a Horz(CT) 0.00	(loc) l - - 3	l/defl L n/a 99 n/a 99 n/a n	/d <b>PLATES</b> 99 MT20 99 /a Weight: 6 lb	<b>GRIP</b> 244/190 FT = 20%

## LUMBER-

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

REACTIONS. (size) 1=2-3-10, 3=2-3-10 Max Horz 1=-10(LC 12) Max Uplift 1=-10(LC 14), 3=-10(LC 14)

Max Uplift 1=-10(LC 14), 3=-10(LC 14) Max Grav 1=63(LC 2), 3=63(LC 2)

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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

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 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.

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

8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 2-4-6 oc purlins.

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

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3x4 🥢

3x4 📎

0-0-6 0-0-6 2-11-12 2-11-6 Plate Offsets (X,Y)--[2:0-2-0,Edge] LOADING (psf) SPACING-2-0-0 CSI. DEFL. in (loc) l/defl L/d PLATES GRIP TCLL (roof) 20.0 Plate Grip DOL 1.15 тс 0.02 Vert(LL) n/a n/a 999 MT20 244/190 Snow (Pf/Pg) 15.4/20.0 Lumber DOL 1.15 BC 0.04 Vert(CT) n/a n/a 999 TCDL 15.0 WB Rep Stress Incr YES 0.00 Horz(CT) 0.00 3 n/a n/a BCLL 0.0 Code IRC2018/TPI2014 Matrix-P Weight: 8 lb FT = 20% BCDL 10.0

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. (size) 1=2-11-0, 3=2-11-0 Max Horz 1=-15(LC 12) Max Uplift 1=-14(LC 14), 3=-14(

Max Uplift 1=-14(LC 14), 3=-14(LC 14) Max Grav 1=91(LC 2), 3=91(LC 2)

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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

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 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.

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

8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 2-11-12 oc purlins.

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

August 20,2021

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 system. See **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



