



MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: 21-26876
290 PARK RIDGE

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

Pages or sheets covered by this seal: I50438346 thru I50438355

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

Missouri COA: Engineering 001193

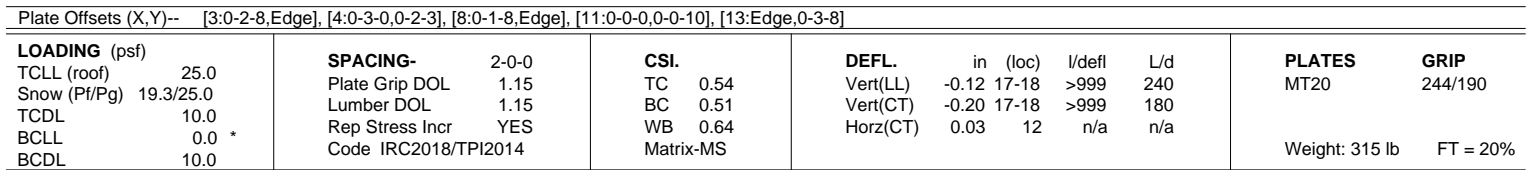


February 28, 2022

Gilbert, Eric ,Engineer

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.

8.430 s Dec 2 2021 MiTek Industries, Inc. Fri Feb 25 14:40:06 2022 Page 1
 ID: GSPVvo9ERO5RBWVVLhfk0yNGJr-u1QwK9?XAPTVDHu2ag11LpRbrH4xwDpL3fYr5dzhZfN
 7-6-9 14-2-4 20-8-14 27-2-9 27-5-4 33-8-12 37-5-8 41-5-13 45-8-0
 7-6-9 6-7-11 6-6-10 6-5-11 0-2-11 6-3-8 3-8-12 4-0-6 4-2-2
 Scale = 1:84.4



REACTIONS. (size) 12=0-3-8, 21=0-3-8
 Max Horz 21=-192(LC 12)
 Max Uplift 12=-387(LC 14), 21=-256(LC 14)
 Max Grav 12=2727(LC 24), 21=1842(LC 23)

NOTES-

- 1) N/A.
- 2) Attach 13"H X 96"W X 7/16" OSB (APA Rated Sheathing
24/16 Exposure 1) gusset to both sides of truss at joint 18 with 10d (0.131"x3") nails from each face, driven through both sheets of plywood and clinched. Connected together as follows: 2x4 - 2 rows 0-4-0 o.c. Minimum 0-3-0 end distance.
- 3) n/a.
- 4) Unbalanced roof live loads have been considered for this design.
- 5) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=0ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) 0-0-0 to 3-0-0, Exterior(2E) 3-0-0 to 45-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 6) T CLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Pf=19.3 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.
- 7) Provide adequate drainage to prevent water ponding.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



February 28, 2022

Job	Truss	Truss Type	Qty	Ply	290 PARK RIDGE	I50438347
21-26876	B1XXX	Piggyback Base	1	1	Job Reference (optional)	

Pioneer Industries, LLC, Owensville, MO 65066, Mitek

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ID:GSVPvo9ERO5RBWVVLhkfk0yNGJr-u1QwK9?XAPTVDHu2ag11LpRbrH4xDpL3fYr5dzhZfN

- NOTES-**
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 387 lb uplift at joint 12 and 256 lb uplift at joint 21.
 - 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.

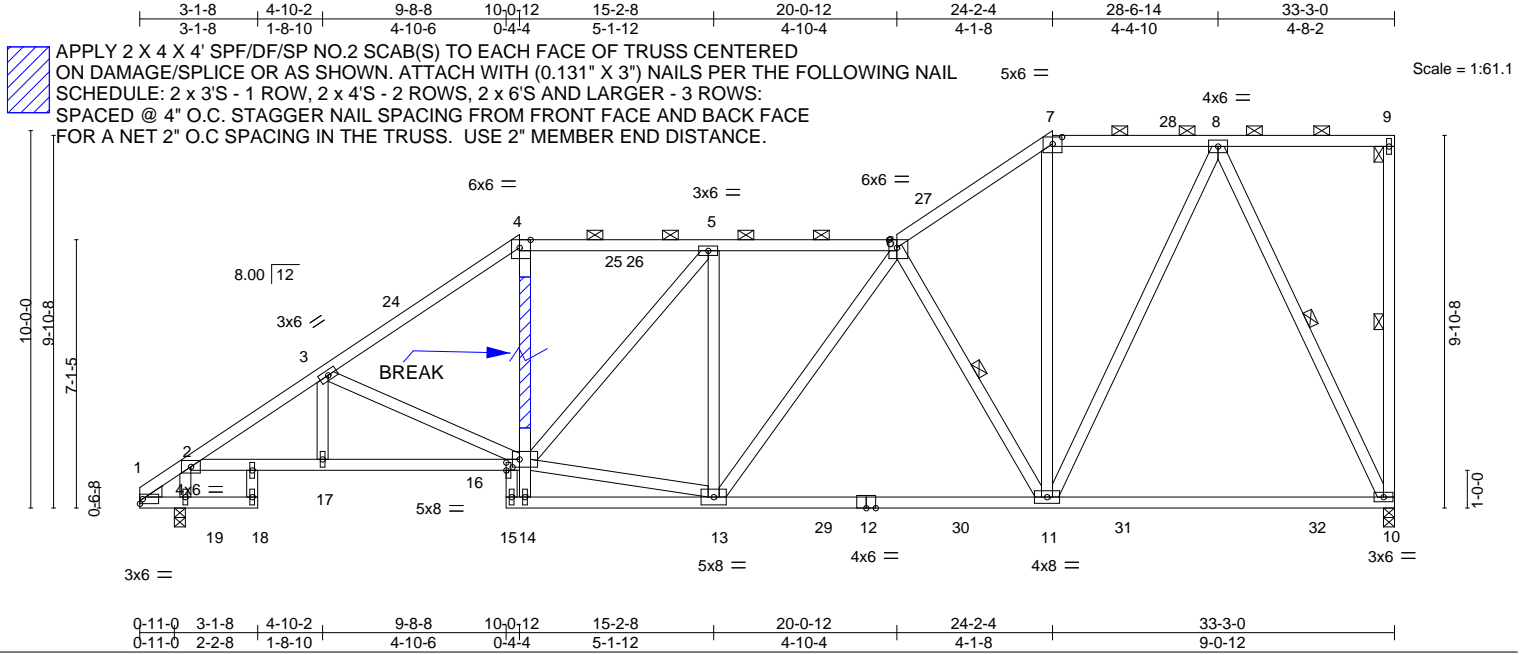


Job	Truss	Truss Type	Qty	Ply	290 PARK RIDGE	I50438348
21-26876	B5	Piggyback Base	1	1	Job Reference (optional)	

Pioneer Industries, LLC (Mitek), Owensville, MO - 65066,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Feb 24 14:21:00 2022 Page 1

ID:GSPV09ERO5RBWVVLhkf0yNGJr-OQz2l?ImPDoChBjle3Qxq7YejyfhvTLuEbHOWzhv1H



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.29 10-11 >999	MT20		244/190	
Snow (Pf/Pg)	19.3/25.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.46 10-11 >832				
TCDL	10.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	-0.11 10 n/a				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-MS							
BCDL	10.0										
								Weight: 241 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 3-9-11 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-13 max.): 4-6, 7-9.
BOT CHORD	2x4 SP No.1 *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
	18-20,15-16: 2x4 SP No.2		7-7-11 oc bracing: 16-17.
WEBS	2x4 SP No.2 *Except*	WEBS	1 Row at midpt 9-10, 6-11, 8-10
	9-10,6-13,7-11,8-10,8-11: 2x4 SP No.1		
WEDGE			
Left: 2x4 SP No.3			
REACTIONS.			
(size)	10=0-3-8, 19=0-3-8		
Max Horz	19=300(LC 14)		
Max Uplift	10=-269(LC 14), 19=-183(LC 14)		
Max Grav	10=1630(LC 23), 19=1777(LC 23)		
FORCES.			
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.			
TOP CHORD	2-3=-2659/475, 3-4=-2189/371, 4-5=-1770/350, 5-6=-1889/298, 6-7=-1443/212, 7-8=-1150/214		
BOT CHORD	1-19=-208/325, 2-17=-676/2257, 16-17=-676/2257, 11-13=-359/1819, 10-11=-130/652		
WEBS	5-13=-284/170, 6-11=-1319/291, 7-11=-19/522, 2-19=-1576/114, 4-16=-90/861, 3-16=-507/247, 13-16=-397/1902, 5-16=-254/0, 8-10=-1494/306, 8-11=-194/1165		

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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 10-0-12, Exterior(2R) 10-0-12 to 13-0-12, Interior(1) 13-0-12 to 24-2-4, Exterior(2R) 24-2-4 to 27-2-4, Interior(1) 27-2-4 to 33-1-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Pf=19.3 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x5 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 10 and 183 lb uplift at joint 19.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 28, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	290 PARK RIDGE	I50438351
21-26876	B6XXX	Piggyback Base	1	1	Job Reference (optional)	

Pioneer Industries, LLC, Owensville, MO 65066, Mitek

8.430 s Dec 2 2021 MiTek Industries, Inc. Fri Feb 25 14:46:29 2022 Page 1
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1-0-12 3-1-8 4-10-3 8-6-12 9-8-8 11-8-8 18-6-12 24-2-4 28-6-14 33-3-0
1-0-12 2-0-12 1-8-11 3-8-9 1-1-12 2-0-0 6-10-4 5-7-8 4-4-10 4-8-2

Scale = 1:66.9

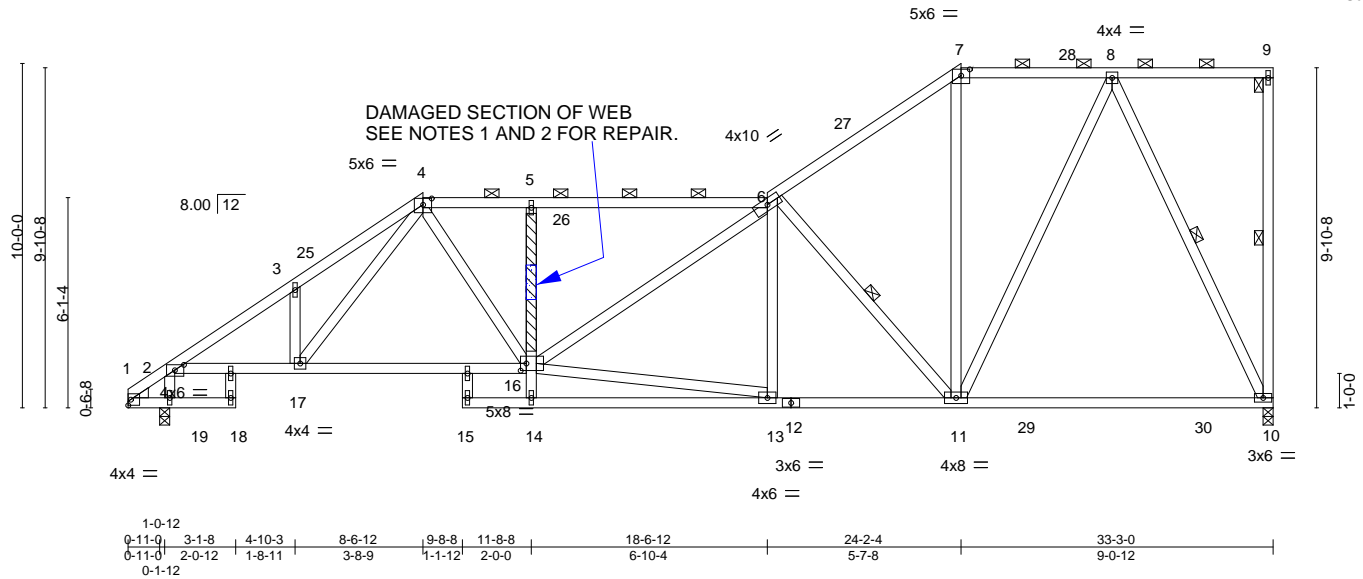


Plate Offsets (X,Y)-- [2:0-3-2,0-1-14], [4:0-3-0,0-2-3], [7:0-3-0,0-2-3], [16:0-2-0,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL	1.15	TC 0.79	Vert(LL)	-0.34 10-11	>999	240	MT20	244/190
Snow (Pf/Pg) 19.3/25.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.55 10-11	>696	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.66	Horz(CT)	0.12 10	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-MS						
BCDL 10.0								Weight: 248 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1 *Except*
18-20,15-21: 2x4 SP No.2
WEBS 2x4 SP No.2 *Except*
9-10,6-16,7-11,8-11,8-10: 2x4 SP No.1
WEDGE
Left: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-1 oc purlins, except end verticals, and 2-0-0 oc purlins (2-11-15 max.): 4-6, 7-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-11-2 oc bracing: 16-17
9-9-6 oc bracing: 11-13.
WEBS 1 Row at midpt 9-10, 6-11, 8-10

REACTIONS.

(size) 10=0-3-8, 19=0-3-8
Max Horz 19=300(LC 14)
Max Uplift 10=267(LC 14), 19=177(LC 14)
Max Grav 10=1618(LC 23), 19=1787(LC 23)

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

TOP CHORD 2-3=-2688/451, 3-25=-2714/565, 4-25=-2652/587, 4-5=-2391/391, 5-26=-2389/392,
6-26=-2387/392, 6-27=-1445/178, 7-27=-1352/198, 7-28=-1132/214, 8-28=-1134/213
BOT CHORD 1-19=-208/325, 2-17=-652/2268, 16-17=-488/1902, 12-13=-410/2209, 11-12=-410/2209,
11-29=-128/641, 29-30=-128/641, 10-30=-128/641
WEBS 4-16=-79/998, 13-16=-407/2137, 6-16=-134/253, 6-11=-1565/289, 7-11=0/469,
8-11=-198/1150, 8-10=-1466/302, 2-19=-1586/109, 5-16=-475/139, 4-17=-270/602

NOTES-

- 1) Repair Condition: web has damaged section 1-0-0 long starting 1-8-0 below joint 5.
- 2) Replace damaged section cut clean with same size and grade of material. Apply 48" long 2x4 SP No.2 scab to front side(s) of truss centered on damage located 2-2-0 below joint 5 with 2 row(s) of 10d (0.131"x3") nails spaced 2" o.c. from front face. Minimum 0-3-0 end distance.
- 3) N/A.
- 4) Unbalanced roof live loads have been considered for this design.
- 5) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=3ft; 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 8-6-12, Exterior(2R) 8-6-12 to 11-8-8, Interior(1) 11-8-8 to 24-2-4, Exterior(2R) 24-2-4 to 27-2-4, Interior(1) 27-2-4 to 33-1-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 6) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Pf=19.3 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.
- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 1.5x5 MT20 unless otherwise indicated.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



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Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	290 PARK RIDGE	I50438351
21-26876	B6XXX	Piggyback Base	1	1	Job Reference (optional)	

Pioneer Industries, LLC, Owensville, MO 65066, Mitek

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- NOTES-**
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 267 lb uplift at joint 10 and 177 lb uplift at joint 19.
 - 12) 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.
 - 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job 21-26876	Truss B8XXX	Truss Type Piggyback Base	Qty 1	Ply 1	290 PARK RIDGE Job Reference (optional)	I50438353
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Pioneer Industries, LLC, Owensville, MO 65066, Mitek

8.430 s Dec 2 2021 MiTek Industries, Inc. Fri Feb 25 14:48:49 2022 Page 1
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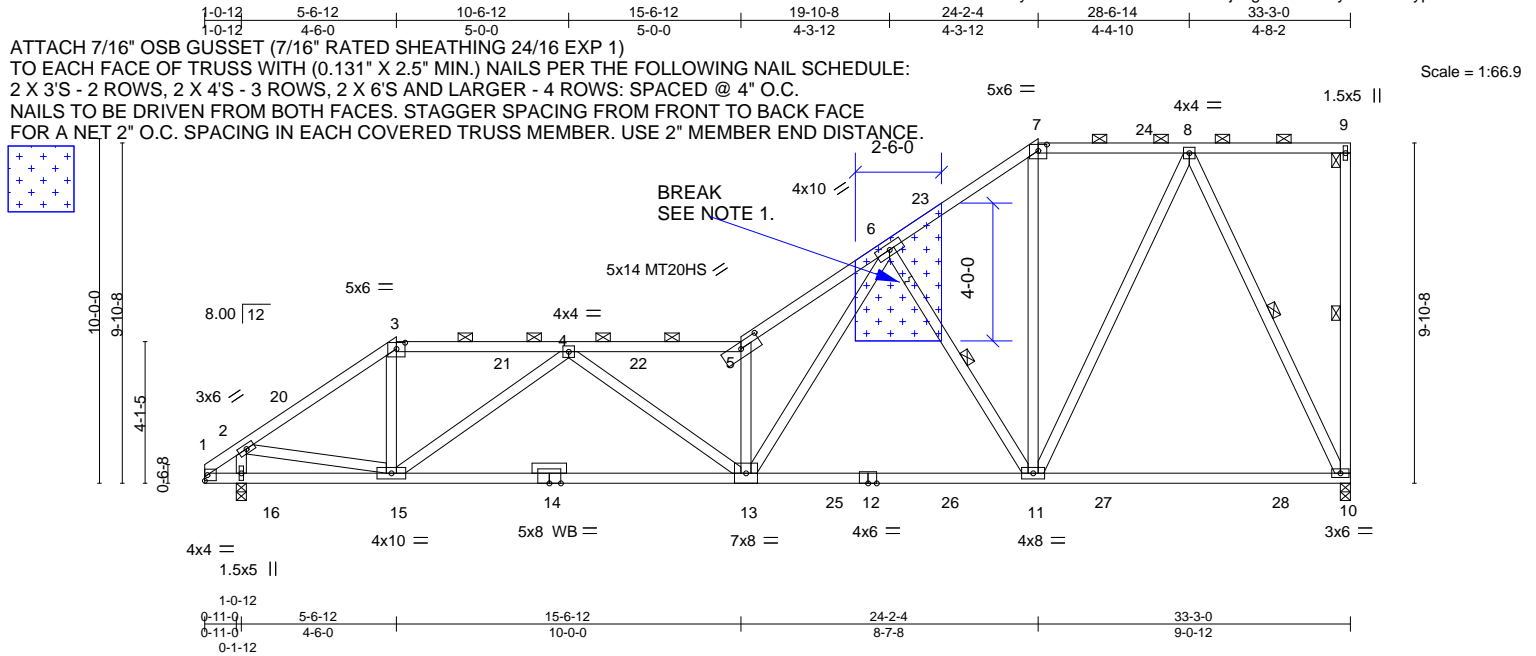


Plate Offsets (X,Y)-- [3:0-3-0,0-2-3], [5:0-7-0,0-2-2], [7:0-3-0,0-2-3]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.32	10-11	>999	240	244/190
Snow (Pf/Pg) 19.3/25.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.62	13-15	>617	180	187/143
TCDL 10.0	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.07	10	n/a	n/a	
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-MS						
BCDL 10.0									

Weight: 223 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except*
9-10,7-11,8-11,8-10: 2x4 SP No.1
OTHERS 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-12 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-8 max.): 3-5, 7-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-2-11 oc bracing: 13-15.
WEBS 1 Row at midpt 9-10, 6-11, 8-10

REACTIONS.

(size) 10=0-3-8, 16=0-3-8
Max Horz 16=300(LC 14)
Max Uplift 10=-271(LC 14), 16=-195(LC 14)
Max Grav 10=1641(LC 23), 16=1682(LC 23)

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

TOP CHORD 2-20=-2034/242, 3-20=-1956/261, 3-21=-1646/252, 4-21=-1647/252, 4-22=-3347/375, 5-22=-3345/376, 5-6=-3993/504, 6-23=-1455/190, 7-23=-1377/216, 7-24=-1155/212, 8-24=-1156/212
BOT CHORD 15-16=-375/268, 14-15=-580/2784, 13-14=-580/2784, 13-25=-365/1884, 12-25=-365/1884, 12-26=-365/1884, 11-26=-365/1884, 11-27=-130/656, 27-28=-130/656, 10-28=-130/656
WEBS 2-16=-1663/244, 2-15=-98/1558, 3-15=-36/821, 4-15=-1368/179, 4-13=0/760, 5-13=-2435/352, 6-13=-361/2716, 6-11=-1381/293, 7-11=-29/530, 8-11=-191/1169, 8-10=-1502/306

NOTES-

- 1) Repair Condition: web has 0-1-0 long break centered at 1-0-8 below joint 6.
- 2) N/A.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=24ft; eave=5ft; 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 5-6-12, Exterior(2R) 5-6-12 to 8-6-12, Interior(1) 8-6-12 to 24-2-4, Exterior(2R) 24-2-4 to 27-2-4, Interior(1) 27-2-4 to 33-1-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Pf=19.3 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.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 271 lb uplift at joint 10 and 195 lb uplift at joint 16.

Continued on page 2



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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	290 PARK RIDGE	I50438353
21-26876	B8XXX	Piggyback Base	1	1	Job Reference (optional)	

Pioneer Industries, LLC, Owensville, MO 65066, Mitek

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- NOTES-**
- 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.

Job 21-26876	Truss C7XXX	Truss Type Roof Special	Qty 1	Ply 1	290 PARK RIDGE Job Reference (optional)	IS0438355
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Pioneer Industries, LLC, Owensville, MO 65066, Mitek

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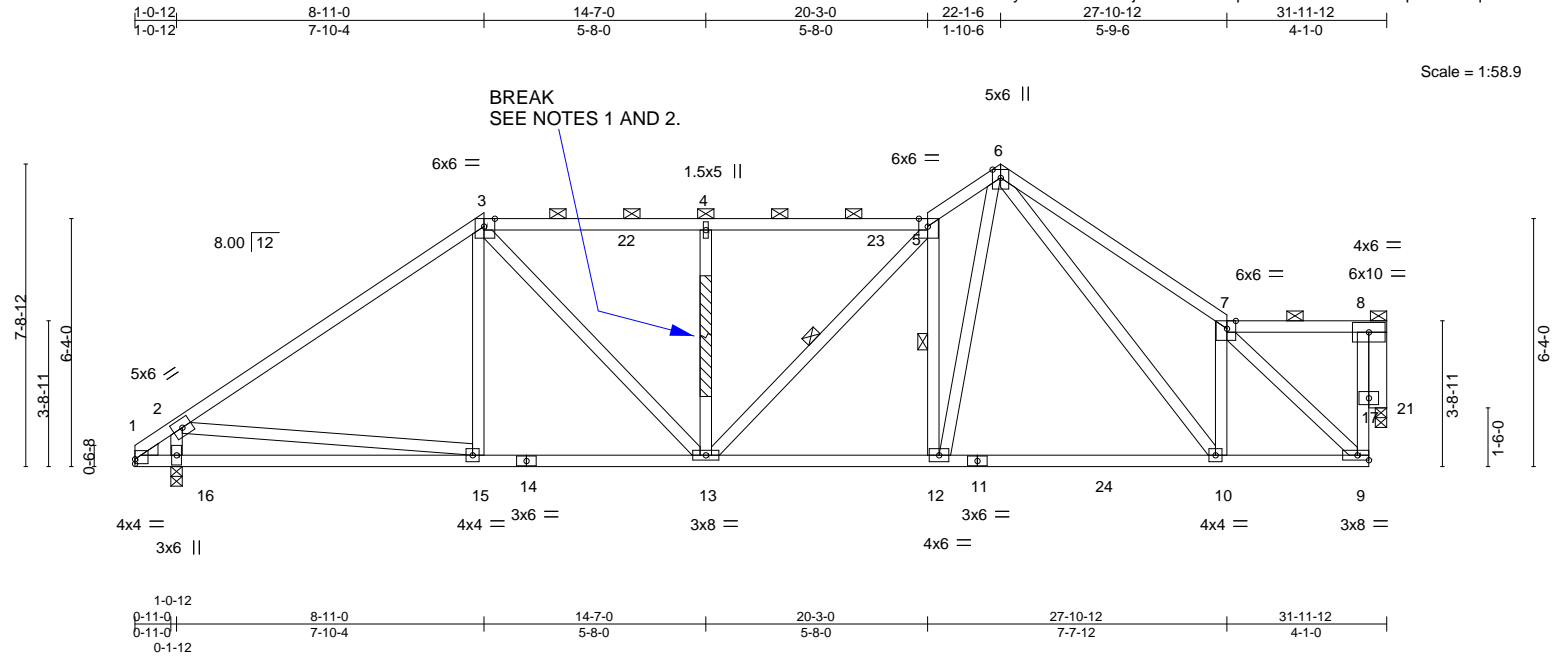


Plate Offsets (X,Y)-- [1:0-0-0,0-1-6], [3:0-3-5,Edge], [5:0-2-11,Edge], [7:0-2-11,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL	1.15	TC 0.87	Vert(LL)	-0.16 10-12	>999	240	MT20	244/190
Snow (Pf/Pg) 19.3/25.0	Lumber DOL	1.15	BC 0.54	Vert(CT)	-0.27 10-12	>999	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.07 21	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-MS					Weight: 213 lb	FT = 20%
BCDL 10.0									

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-14 max.): 3-5, 7-8.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 6-10: 2x4 SP No.1	WEBS 1 Row at midpt 5-13, 5-12
OTHERS 2x6 SP No.1	
WEDGE Left: 2x4 SP No.2	

REACTIONS. (size) 16=0-3-8, 21=0-3-8
Max Horz 16=-124(LC 12)
Max Uplift 16=-226(LC 14), 21=-216(LC 14)
Max Grav 16=1591(LC 24), 21=1427(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-445/91, 2-3=-1871/421, 3-22=-1866/505, 4-22=-1867/505, 4-23=-1868/505, 5-23=-1866/505, 5-6=-2128/579, 6-7=-1934/503, 9-17=-284/1351, 8-17=-284/1351
BOT CHORD 1-16=-199/547, 15-16=-322/640, 14-15=-319/1506, 13-14=-319/1506, 12-13=-365/1791, 11-12=-262/1343, 11-24=-262/1343, 10-24=-262/1343, 9-10=-329/1511
WEBS 2-16=-1451/509, 2-15=-66/1017, 3-13=-125/678, 4-13=-470/167, 5-13=-57/272, 5-12=-1489/438, 6-12=-409/1824, 6-10=-102/365, 7-9=-1841/399, 8-21=-1465/322

- NOTES-**
- 1) Repair Condition: web has 0-1-0 long break centered at 2-8-8 below joint 4.
 - 2) Apply 37" long 2x4 SP No.2 scab to front side(s) of truss centered on damage located 2-8-8 below joint 4 with 2 row(s) of 10d (0.131"x3") nails spaced 2" o.c. from front face. Minimum 0-3-0 end distance.
 - 3) N/A.
 - 4) Unbalanced roof live loads have been considered for this design.
 - 5) 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 8-11-0, Corner(3R) 8-11-0 to 11-11-0, Exterior(2N) 11-11-0 to 22-1-6, Corner(3R) 22-1-6 to 25-1-6, Exterior(2N) 25-1-6 to 31-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 6) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Pf=19.3 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs.
 - 7) Provide adequate drainage to prevent water ponding.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



February 28, 2022

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	290 PARK RIDGE	I50438355
21-26876	C7XXX	Roof Special	1	1	Job Reference (optional)	

Pioneer Industries, LLC, Owensville, MO 65066, Mitek

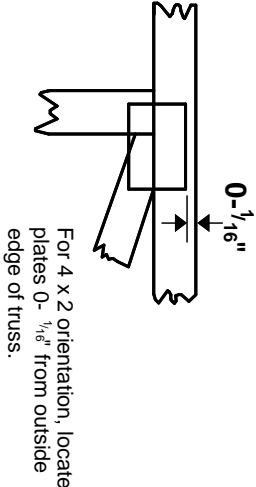
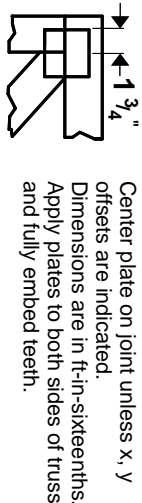
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- NOTES-**
- 10) Bearing at joint(s) 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 226 lb uplift at joint 16 and 216 lb uplift at joint 21.
 - 12) 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.
 - 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Symbols

PLATE LOCATION AND ORIENTATION



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

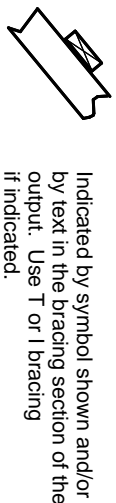
For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

PLATE SIZE

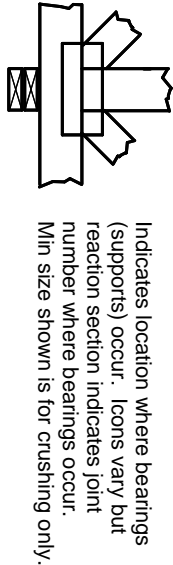
4 X 4

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

LATERAL BRACING LOCATION



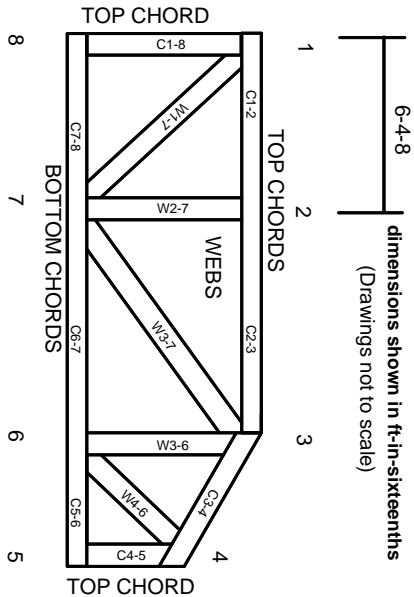
BEARING



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

Industry Standards:
ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:
ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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Mitek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.