

RE: 28199A  
 LOT 8 PRINCE PLACE - FLOOR

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: 28199A  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

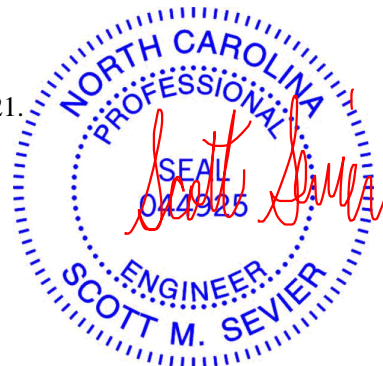
Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.5  
 Wind Code: N/A Wind Speed: N/A mph  
 Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 17 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I47790992	F1	9/7/2021
2	I47790993	F2	9/7/2021
3	I47790994	F3	9/7/2021
4	I47790995	F4	9/7/2021
5	I47790996	F5	9/7/2021
6	I47790997	F6	9/7/2021
7	I47790998	F7	9/7/2021
8	I47790999	F7G	9/7/2021
9	I47791000	F8G	9/7/2021
10	I47791001	F9	9/7/2021
11	I47791002	F11	9/7/2021
12	I47791003	F12	9/7/2021
13	I47791004	KW1	9/7/2021
14	I47791005	KW2	9/7/2021
15	I47791006	KW3	9/7/2021
16	I47791007	KW4	9/7/2021
17	I47791008	KW5	9/7/2021

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.  
 Truss Design Engineer's Name: Sevier, Scott  
 My license renewal date for the state of North Carolina is December 31, 2021.  
 North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.



September 07, 2021

Job 28199A	Truss F1	Truss Type FLOOR	Qty 6	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	147790992
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:37:45 2021 Page 1  
ID:NS3h4WSAr6NUQemYdajYWgykej-Ym5ycmluQXaC\_Up84pPZAfTP?9aBRyDngC59Tyg2Qq

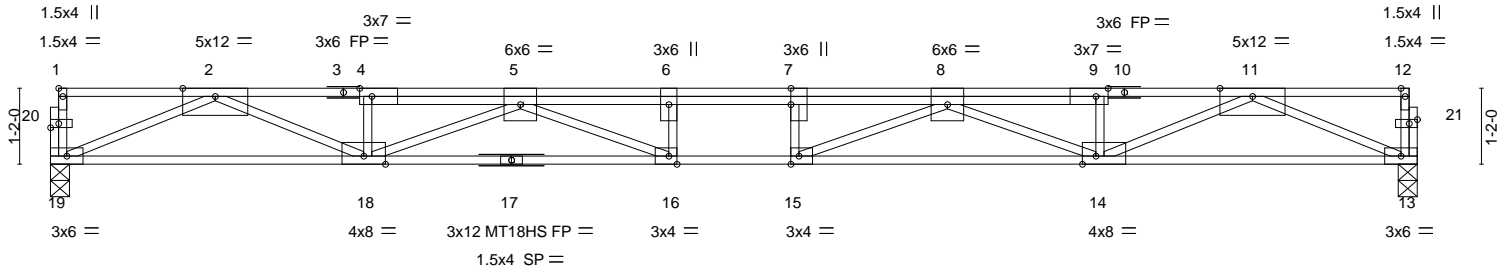
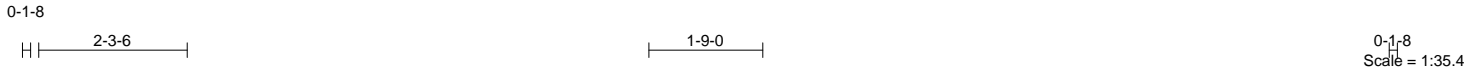


Plate Offsets (X,Y)--	[1:Edge,0-0-12], [4:0-2-4,Edge], [7:0-3-0,0-0-0], [9:0-2-4,Edge], [14:0-2-8,Edge], [15:0-1-8,Edge], [16:0-1-8,Edge], [20:0-1-8,0-0-12], [21:0-1-8,0-0-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.55	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.00	BC 0.57	Vert(LL) -0.48 15-16 >519 480	MT18HS	244/190
BCLL 0.0	Lumber DOL 1.00	WB 0.88	Vert(CT) -0.66 15-16 >379 360		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.10 13 n/a n/a		
	Code IRC2015/TPI2014			Weight: 118 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins, except end verticals.
BOT CHORD 2x4 SP DSS(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 19=0-3-8, 13=0-3-8  
Max Grav 19=1135(LC 1), 13=1135(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-4051/0, 4-5=-4054/0, 5-6=-5985/0, 6-7=-5985/0, 7-8=-5985/0, 8-9=-4054/0, 9-11=-4051/0  
BOT CHORD 18-19=0/2360, 16-18=0/5394, 15-16=0/5985, 14-15=0/5394, 13-14=0/2360  
WEBS 2-19=-2565/0, 11-13=-2565/0, 2-18=0/1850, 11-14=0/1850, 5-18=-1456/0, 8-14=-1456/0, 5-16=-19/1060, 6-16=-345/2, 8-15=-19/1060, 7-15=-345/2

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 4) The Fabrication Tolerance at joint 17 = 11%
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



September 7, 2021

Job 28199A	Truss F2	Truss Type Floor	Qty 1	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	147790993
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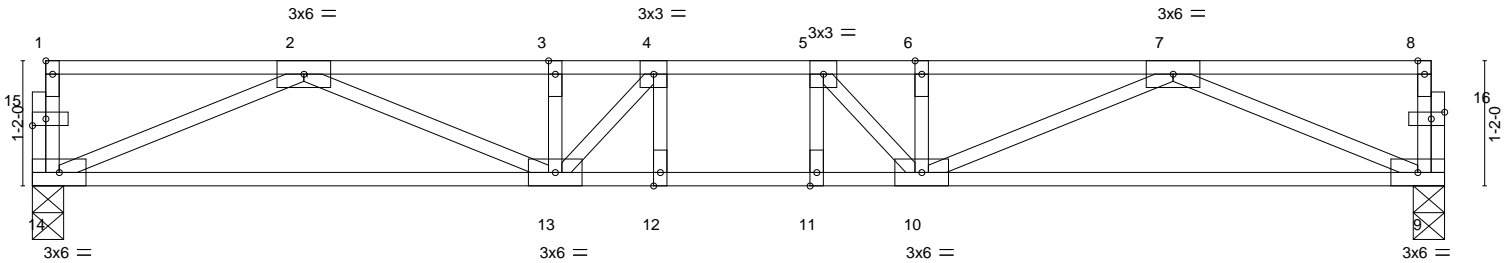
84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:37:50 2021 Page 1  
ID: NS3h4WSAr6NUQemYdajYWgyykej-vkurFUM1F4CU5Gi5tM?ktiAJiAF?60RMxywsqgyg2Ql

0-1-8



0-1-8  
Scale = 1:21.5



13-2-0  
13-2-0

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [15:0-1-8,0-0-12], [16:0-1-8,0-0-12]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.36	Vert(LL)	-0.11 11-12	>999	480	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.66	Vert(CT)	-0.15 11-12	>999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.39	Horz(CT)	0.03 9	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S					Weight: 68 lb	FT = 20%F, 11%E

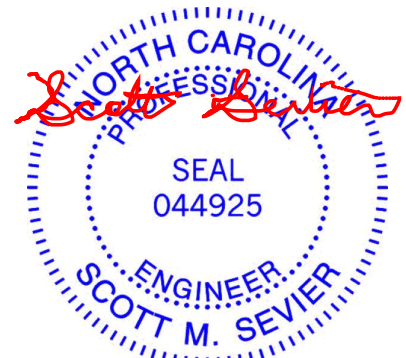
**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 14=0-3-8, 9=0-3-8  
Max Grav 14=704(LC 1), 9=704(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2083/0, 3-4=-2083/0, 4-5=-2173/0, 5-6=-2083/0, 6-7=-2083/0  
BOT CHORD 13-14=0/1370, 12-13=0/2173, 11-12=0/2173, 10-11=0/2173, 9-10=0/1370  
WEBS 2-14=-1487/0, 7-9=-1487/0, 2-13=0/780, 7-10=0/780, 4-13=-363/123, 5-10=-363/123

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



September 7, 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 systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job 28199A	Truss F3	Truss Type Floor	Qty 6	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	147790994
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:37:52 2021 Page 1  
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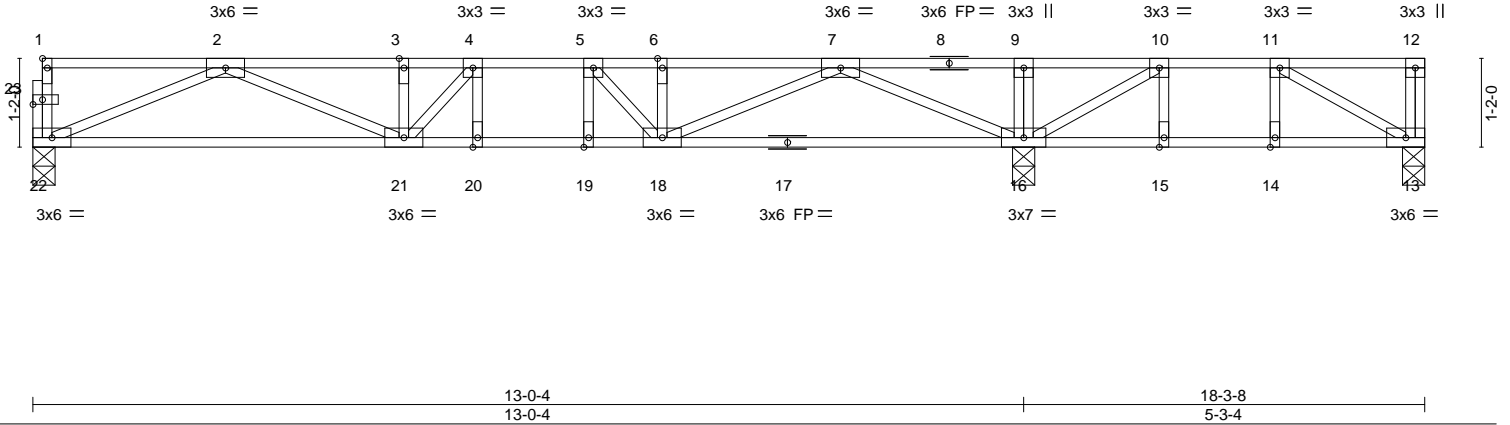


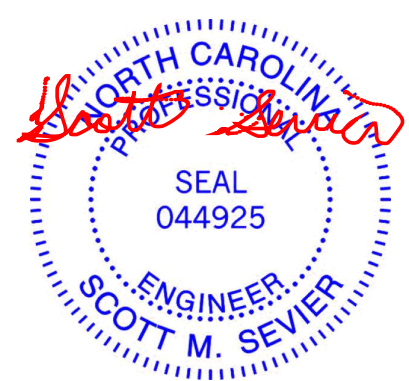
Plate Offsets (X,Y)--	[1:Edge,0-0-12], [23:0-1-8,0-0-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.51	Vert(LL) -0.10 20 >999 480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.67	Vert(CT) -0.14 20 >999 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.44	Horz(CT) 0.03 13 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 94 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 22=0-3-8, 16=0-3-8, 13=0-3-8  
 Max Uplift 13=46(LC 3)  
 Max Grav 22=659(LC 10), 16=1173(LC 1), 13=245(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1881/0, 3-4=-1881/0, 4-5=-1894/0, 5-6=-1726/0, 6-7=-1726/0, 7-9=0/680, 9-10=0/676, 10-11=-250/212  
 BOT CHORD 21-22=0/1266, 20-21=0/1894, 19-20=0/1894, 18-19=0/1894, 16-18=0/924, 15-16=-212/250, 14-15=-212/250, 13-14=-212/250  
 WEBS 2-22=-1373/0, 7-16=-1572/0, 2-21=0/673, 7-18=0/919, 4-21=-251/202, 5-18=-447/10, 10-16=-705/0, 11-13=-287/244

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 13.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.



September 7, 2021

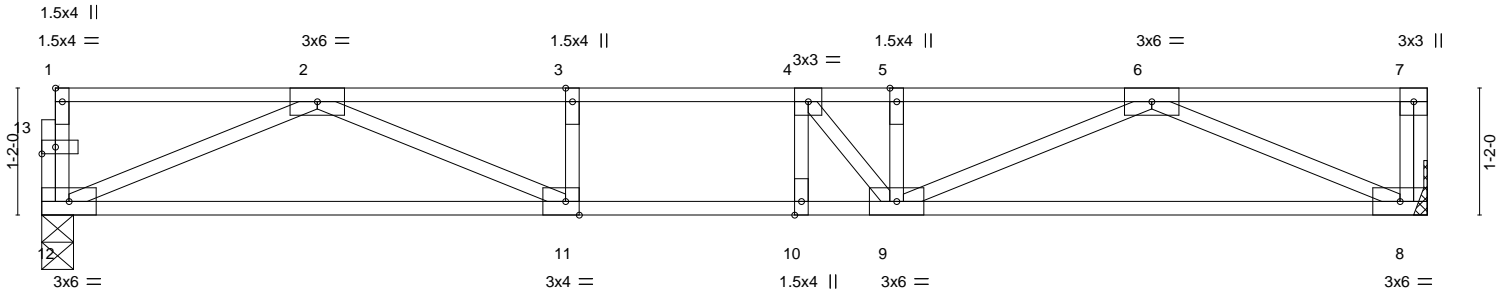
Job 28199A	Truss F4	Truss Type Floor	Qty 10	Ply 1	LOT 8 PRINCE PLACE - FLOOR 147790995
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:37:54 2021 Page 1  
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Scale = 1:21.2



12-8-12  
12-8-12

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [11:0-1-8,Edge], [13:0-1-8,0-0-12]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.53	Vert(LL) -0.13 10 >999 480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.90	Vert(CT) -0.17 10 >885 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.39	Horz(CT) 0.03 8 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 63 lb	FT = 20%F, 11%E

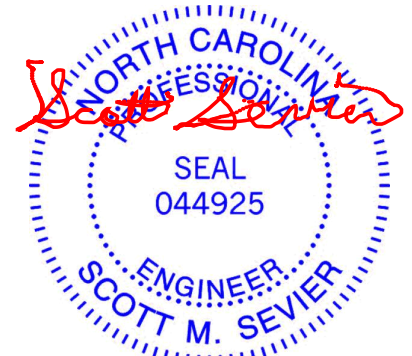
**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 12=0-3-8, 8=Mechanical  
Max Grav 12=680(LC 1), 8=686(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2008/0, 3-4=-2008/0, 4-5=-1976/0, 5-6=-1976/0  
BOT CHORD 11-12=0/1312, 10-11=0/2008, 9-10=0/2008, 8-9=0/1318  
WEBS 2-12=-1423/0, 6-8=-1436/0, 2-11=0/813, 6-9=0/720, 4-9=-382/208

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) CAUTION, Do not erect truss backwards.



September 7, 2021

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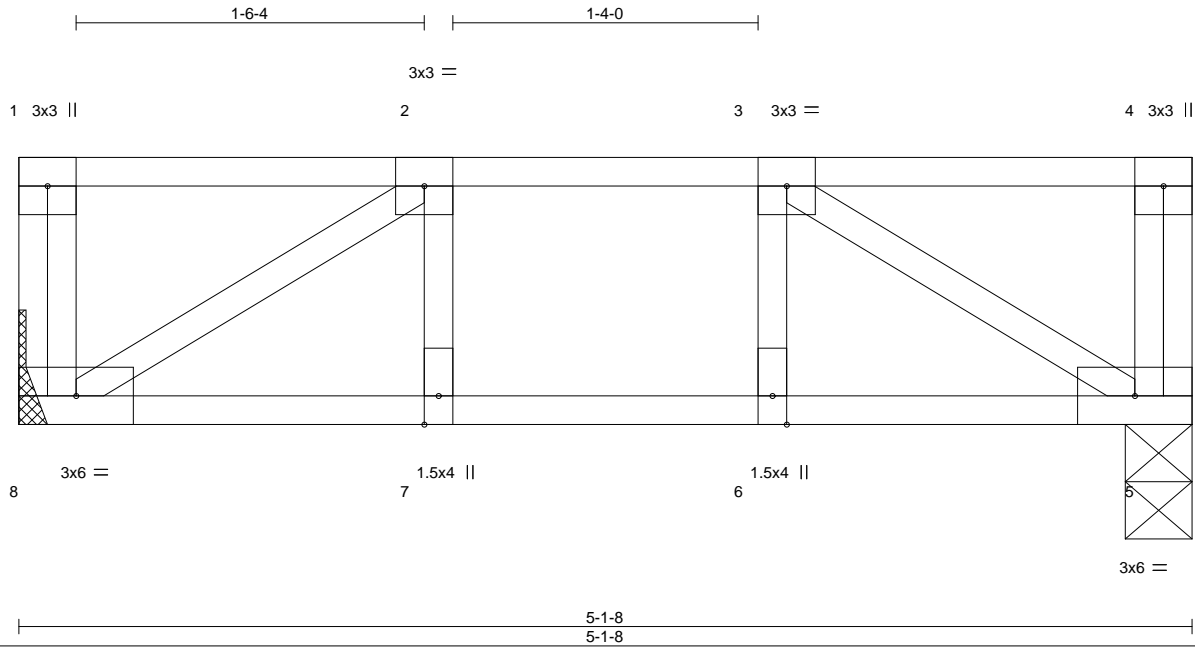
818 Soundside Road  
Edenton, NC 27932

Job 28199A	Truss F5	Truss Type Floor	Qty 1	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	147790996
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:37:55 2021 Page 1

ID: NS3h4WSAr6NUQemYdajYWgyykej-GiikiBQA3cqnB1a3gvavamtCEB4ynMQ54DddVuyg2Qg



Scale = 1:10.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.18	Vert(LL)	-0.01	7	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.00	BC 0.16	Vert(CT)	-0.01	7	>999		
BCLL 0.0	Lumber DOL 1.00	WB 0.09	Horz(CT)	0.00	5	n/a		
BCDL 5.0	Rep Stress Incr YES	Matrix-S					Weight: 29 lb	FT = 20%F, 11%E
	Code IRC2015/TPI2014							

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-1-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 8=Mechanical, 5=0-3-8  
 Max Grav 8=268(LC 1), 5=268(LC 1)

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

TOP CHORD 2-3=-310/0  
 BOT CHORD 7-8=0/310, 6-7=0/310, 5-6=0/310  
 WEBS 2-8=-363/0, 3-5=-363/0

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



September 7, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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

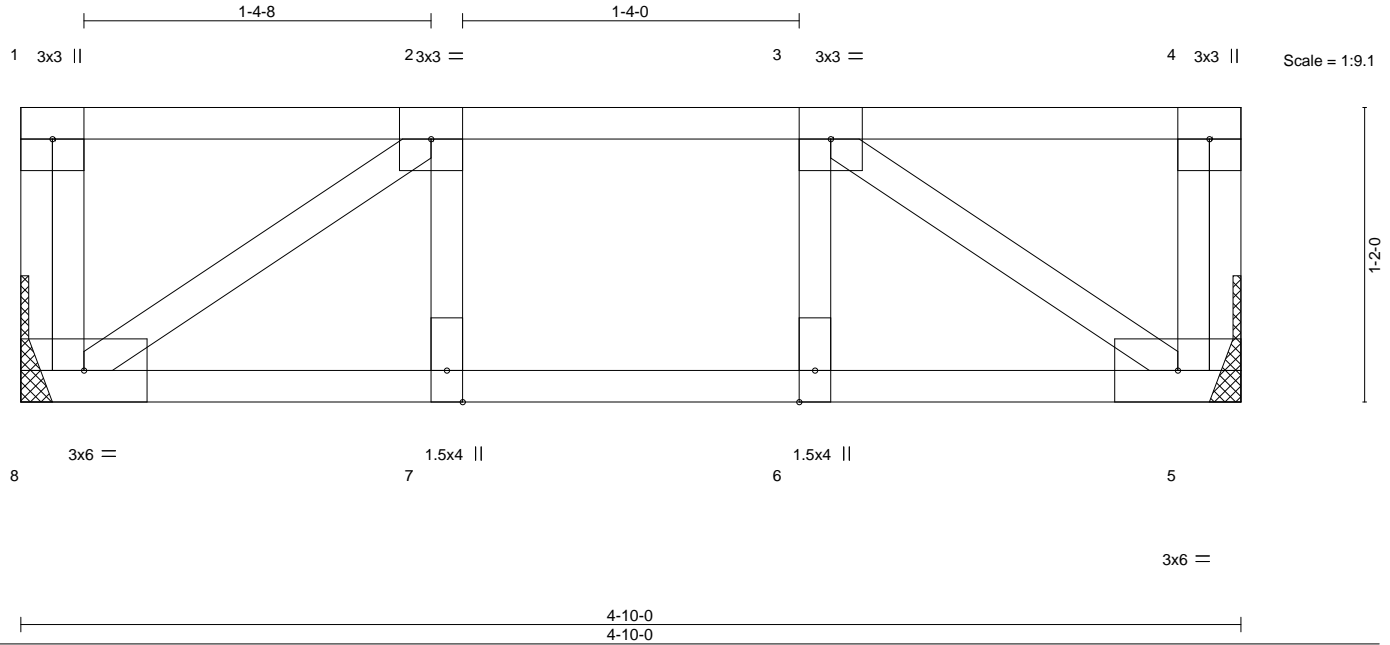


818 Soundside Road  
 Edenton, NC 27932

Job 28199A	Truss F6	Truss Type Floor	Qty 1	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	I47790997
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:37:57 2021 Page 1  
ID: NS3h4WSAr6NUQemYdajYWgykej-C4pV7tRQbD4VQKkRnKdNfBzYH\_mmFG3OYX6kamyg2Qe



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0 Plate Grip DOL 1.00	TC 0.15	Vert(LL) -0.01	7	>999	480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.14	Vert(CT) -0.01	7	>999	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.00	5	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S					Weight: 27 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 4-10-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 8=Mechanical, 5=Mechanical  
Max Grav 8=252(LC 1), 5=252(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-270/0  
BOT CHORD 7-8=0/270, 6-7=0/270, 5-6=0/270  
WEBS 2-8=-325/0, 3-5=-325/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



September 7, 2021

Job 28199A	Truss F7	Truss Type Floor	Qty 7	Ply 1	LOT 8 PRINCE PLACE - FLOOR 147790998
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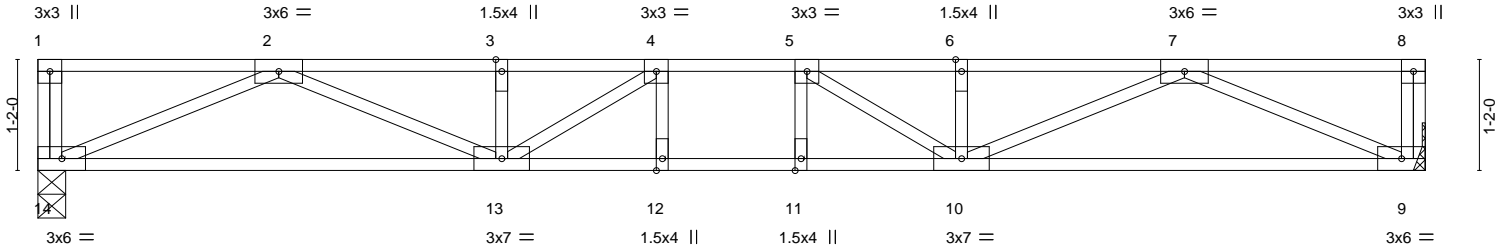
84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:38:00 2021 Page 1

ID:NS3h4WSAr6NUQemYdajYWgykej-cfVdlvUlu8S3HoT0TSA4Hpb?iCdySXnqEVLOB5yg2Qb



Scale: 1/2"=1'



14-7-0  
14-7-0

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.39	Vert(LL)	-0.16 11-12	>999	480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.81	Vert(CT)	-0.22 11-12	>774	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.46	Horz(CT)	0.05 9	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S					Weight: 74 lb	FT = 20%F, 11%E

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 14=0-3-8, 9=Mechanical  
 Max Grav 14=788(LC 1), 9=788(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2440/0, 3-4=-2440/0, 4-5=-2686/0, 5-6=-2440/0, 6-7=-2440/0  
 BOT CHORD 13-14=0/1549, 12-13=0/2686, 11-12=0/2686, 10-11=0/2686, 9-10=0/1549  
 WEBS 2-14=-1688/0, 7-9=-1688/0, 2-13=0/974, 7-10=0/974, 4-13=-517/45, 5-10=-517/45

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



September 7, 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 systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932



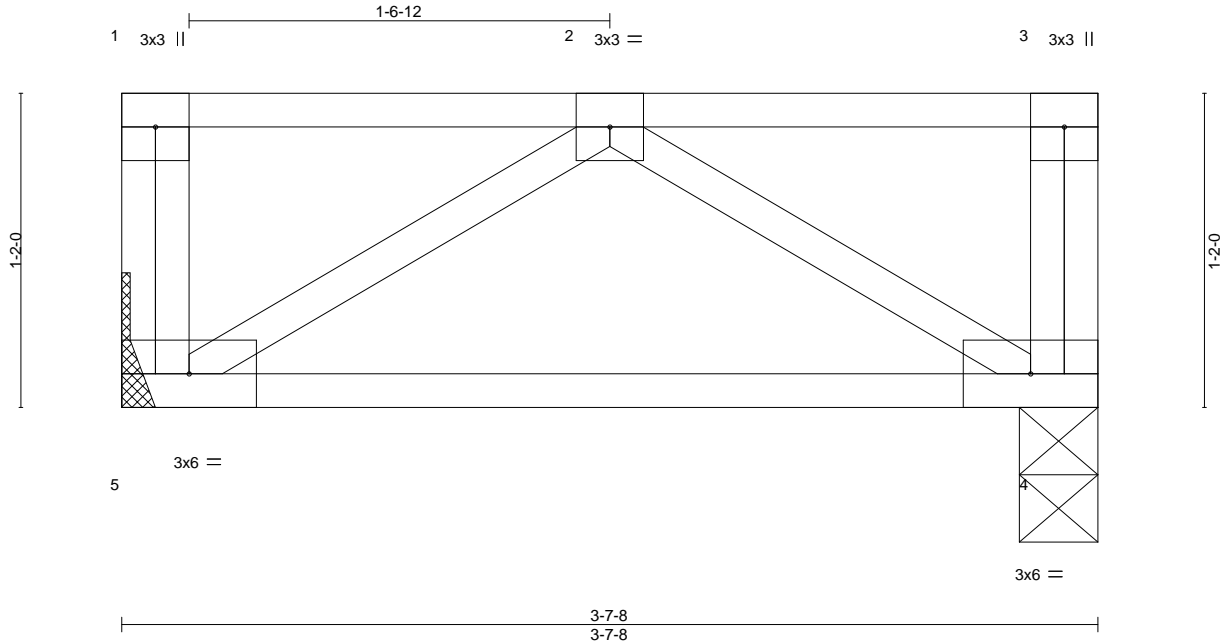
Job 28199A	Truss F7G	Truss Type Floor Girder	Qty 1	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	147790999
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84 Components (Dunn),

Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:38:06 2021 Page 1

ID: NS3h4WSAr6NUQemYdajYWgyykej-Rpsv0yY3U\_DD?jwApjHUX4r5Kcp\_sKDjcRoiOlyg2QV



Scale = 1:8.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0 Plate Grip DOL 1.00	TC 0.19	Vert(LL) 0.00	5	****	480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.19	Vert(CT) -0.02	4-5	>999	360		
BCLL 0.0	Rep Stress Incr NO	WB 0.08	Horz(CT) 0.00	4	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-P					Weight: 22 lb	FT = 20%F, 11%E

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-7-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=Mechanical, 4=0-3-8  
 Max Grav 5=262(LC 1), 4=262(LC 1)

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

BOT CHORD 4-5=0/291  
 WEBS 2-5=-342/0, 2-4=-342/0

**NOTES-**

- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 152 lb down at 1-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 4-5=-10, 1-3=-100  
 Concentrated Loads (lb)  
 Vert: 2=-152(F)



September 7, 2021

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**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



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Job 28199A	Truss F8G	Truss Type Floor Girder	Qty 1	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	147791000
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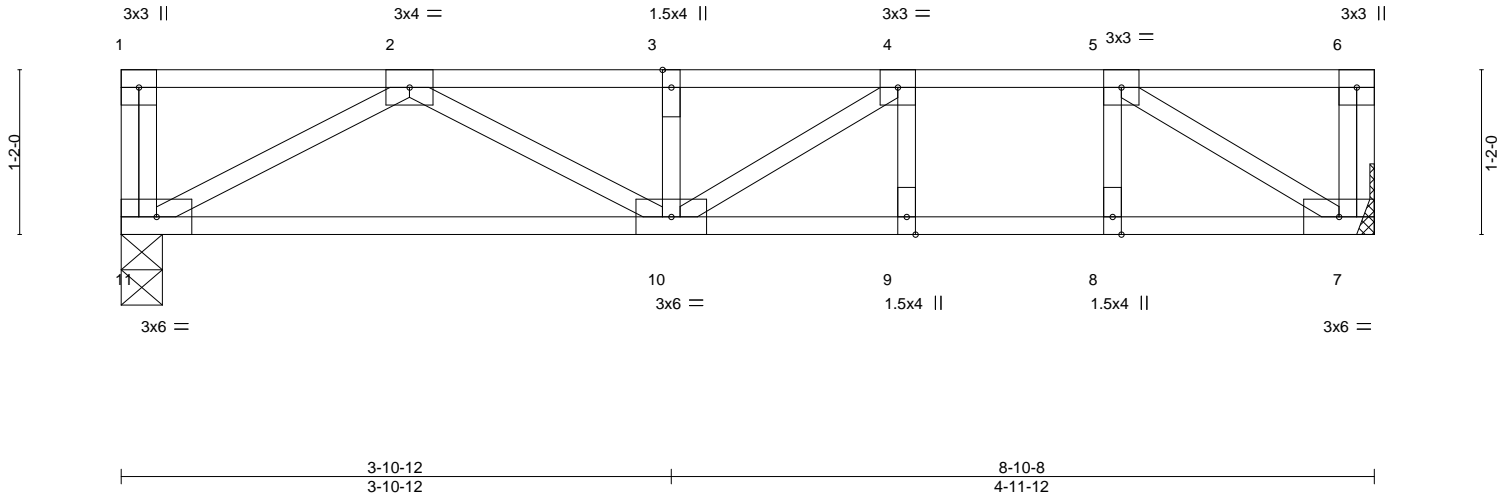
84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:38:07 2021 Page 1

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Scale = 1:16.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.79	Vert(LL)	-0.10 9-10	>999	480	MT20	197/144
BCDL 5.0	Lumber DOL	1.00	BC 0.77	Vert(CT)	-0.14 9-10	>746	360		
	Rep Stress Incr	NO	WB 0.27	Horz(CT)	0.01 7	n/a	n/a		
	Code IRC2015/TPI2014		Matrix-S					Weight: 47 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 BOT CHORD 2x4 SP No.1(flat)  
 WEBS 2x4 SP No.3(flat)

**BRACING-**

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

**REACTIONS.**

(size) 11=0-3-8, 7=Mechanical  
 Max Grav 11=565(LC 1), 7=545(LC 1)

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

TOP CHORD 2-3=-1357/0, 3-4=-1357/0, 4-5=-951/0  
 BOT CHORD 10-11=0/870, 9-10=0/951, 8-9=0/951, 7-8=0/951  
 WEBS 3-10=-421/0, 2-11=-990/0, 2-10=0/559, 4-10=0/526, 5-7=-1111/0

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 242 lb down at 3-10-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 6) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 7-11=-10, 1-6=-100  
 Concentrated Loads (lb)  
 Vert: 3=-162(B)



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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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



818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	LOT 8 PRINCE PLACE - FLOOR	147791001
28199A	F9	Floor	7	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:38:09 2021 Page 1  
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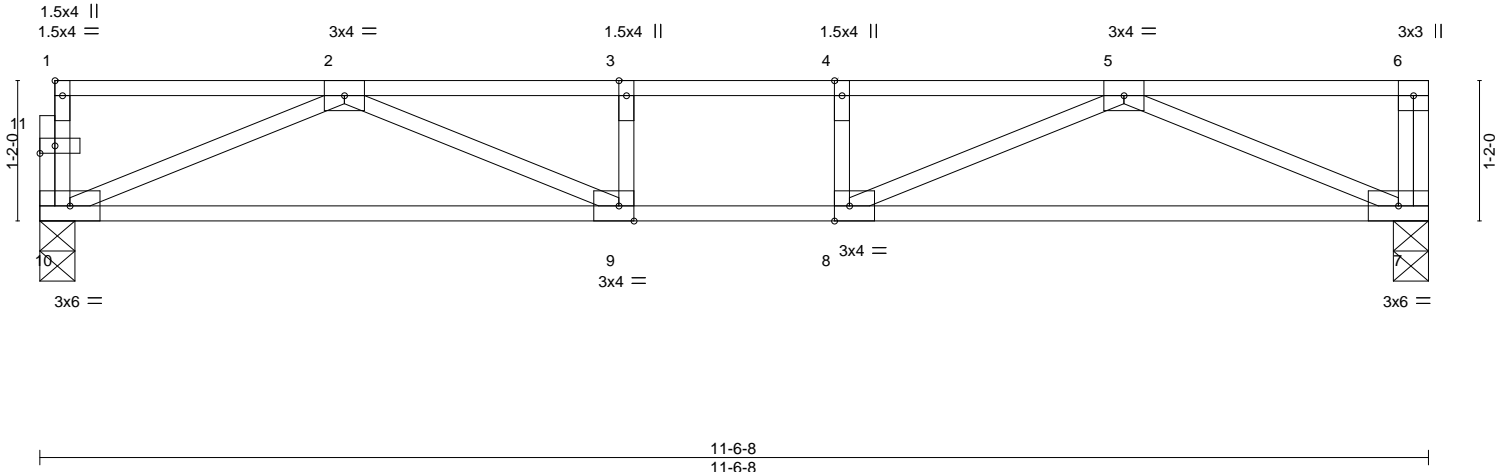


Plate Offsets (X,Y)--	[1:Edge,0-0-12], [8:0-1-8,Edge], [9:0-1-8,Edge], [11:0-1-8,0-0-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.43	Vert(LL) -0.12 9-10 >999 480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.60	Vert(CT) -0.18 9-10 >761 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.33	Horz(CT) 0.02 7 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 57 lb	FT = 20%F, 11%E

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		

**REACTIONS.** (size) 10=0-3-8, 7=0-3-8  
Max Grav 10=615(LC 1), 7=621(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1678/0, 3-4=-1678/0, 4-5=-1678/0  
BOT CHORD 9-10=0/1161, 8-9=0/1678, 7-8=0/1164  
WEBS 2-10=-1259/0, 5-7=-1268/0, 2-9=0/650, 5-8=0/649

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 4) CAUTION, Do not erect truss backwards.



September 7, 2021

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 28199A	Truss F11	Truss Type Floor	Qty 2	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	147791002
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:37:46 2021 Page 1  
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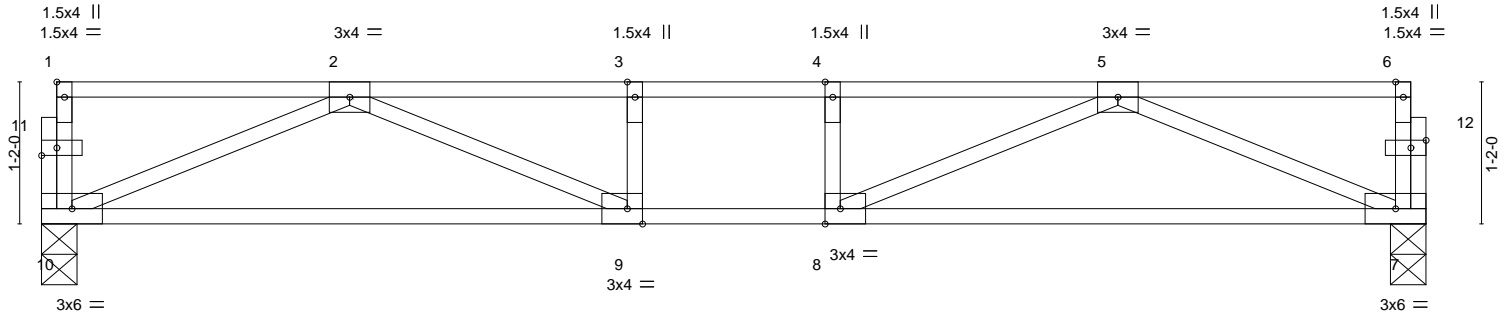
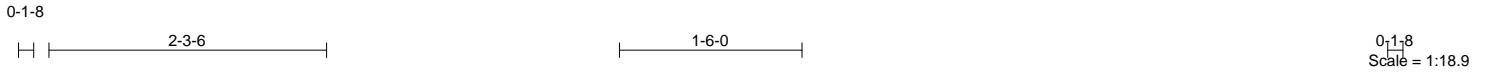


Plate Offsets (X,Y)--	[1:Edge,0-0-12], [8:0-1-8,Edge], [9:0-1-8,Edge], [11:0-1-8,0-0-12], [12:0-1-8,0-0-12]
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<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.39	Vert(LL) -0.11 7-8 >999 480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.57	Vert(CT) -0.17 9-10 >805 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.33	Horz(CT) 0.02 7 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 56 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 10=0-3-8, 7=0-3-8  
Max Grav 10=606(LC 1), 7=606(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1635/0, 3-4=-1635/0, 4-5=-1635/0  
BOT CHORD 9-10=0/1141, 8-9=0/1635, 7-8=0/1141  
WEBS 2-10=-1237/0, 5-7=-1237/0, 2-9=0/622, 5-8=0/622

**NOTES-**  
1) Unbalanced floor live loads have been considered for this design.  
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.  
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



Job 28199A	Truss F12	Truss Type Floor	Qty 2	Ply 1	LOT 8 PRINCE PLACE - FLOOR 147791003
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:37:48 2021 Page 1  
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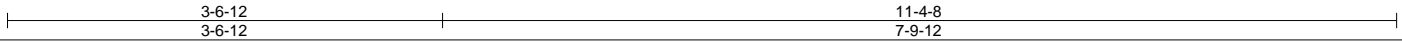
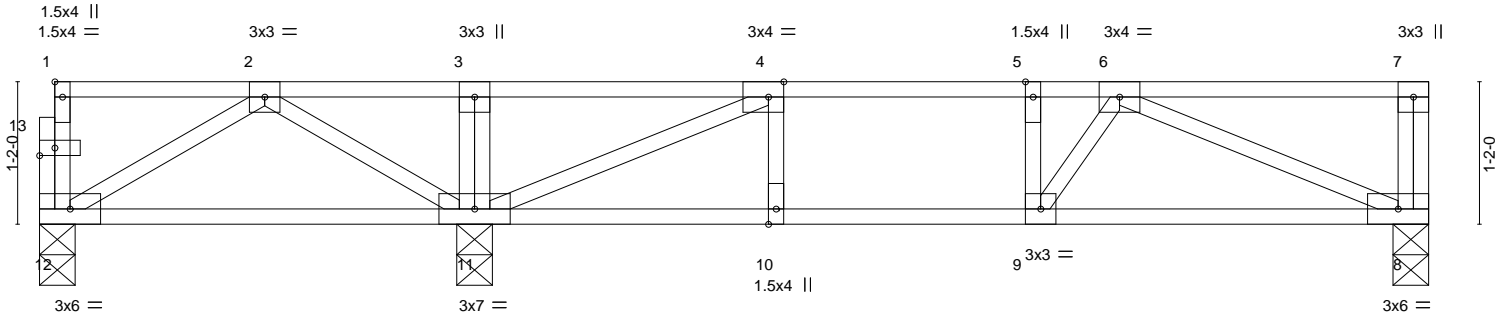
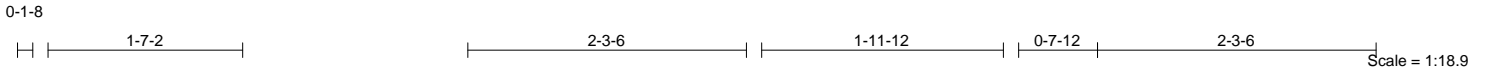


Plate Offsets (X,Y)--	[1:Edge,0-0-12], [4:0-1-8,Edge], [13:0-1-8,0-0-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.34	Vert(LL) -0.04 8-9 >999 480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.31	Vert(CT) -0.06 8-9 >999 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.21	Horz(CT) 0.01 8 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 59 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 12=0-3-8, 8=0-3-8, 11=0-3-8  
Max Grav 12=240(LC 8), 8=416(LC 8), 11=662(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 4-5=-713/0, 5-6=-713/0  
BOT CHORD 11-12=0/270, 10-11=0/713, 9-10=0/713, 8-9=0/690  
WEBS 2-12=-312/0, 2-11=-270/0, 4-11=-791/0, 6-8=-752/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 4) CAUTION, Do not erect truss backwards.



September 7, 2021

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Job 28199A	Truss KW1	Truss Type Floor Supported Gable	Qty 1	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	147791004
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:38:11 2021 Page 1  
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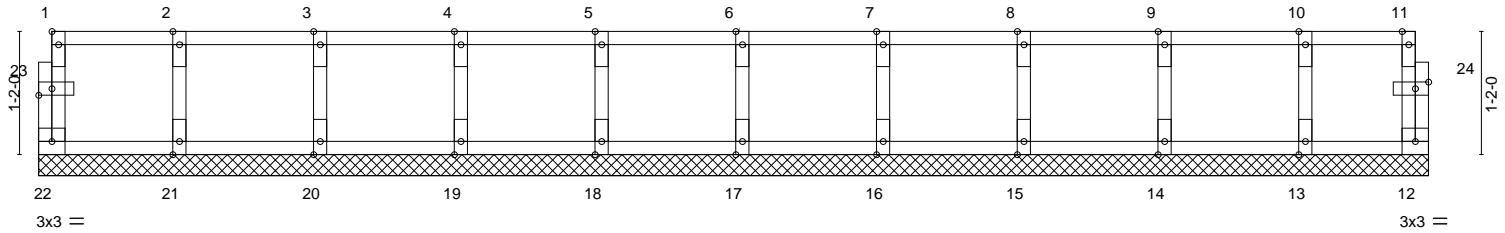


Plate Offsets (X,Y)-- [1:Edge,0-0-12], [23:0-1-8,0-0-12], [24:0-1-8,0-0-12]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.08	Vert(LL) n/a - n/a 999	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.01	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00 12 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-R		Weight: 56 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

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

**REACTIONS.** All bearings 13-2-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 20, 19, 18, 17, 16, 15, 14, 13

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

- NOTES-**
- 1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 2) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



September 7, 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 systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



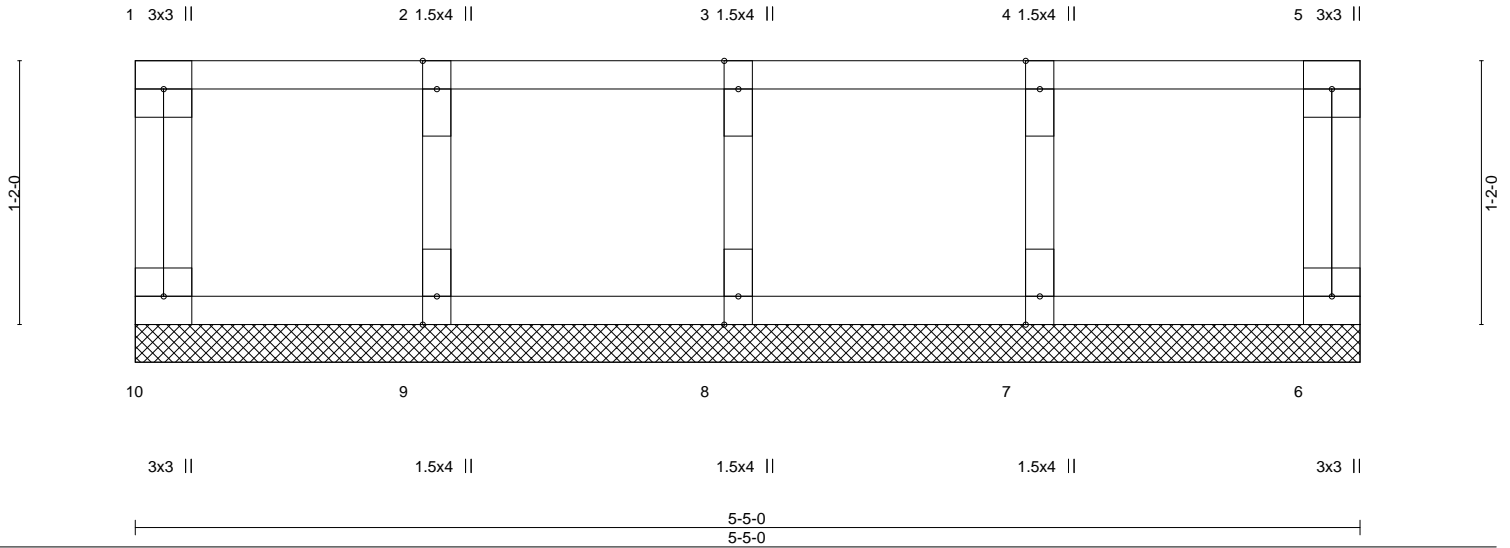
818 Soundside Road  
Edenton, NC 27932

Job 28199A	Truss KW2	Truss Type Floor Supported Gable	Qty 1	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	147791005
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:38:13 2021 Page 1  
ID: NS3h4WSAr6NUQemYdajYWgyykej-k9nYULeSq85DLoyWjvh7JZdIKRFQ\_WmlD1?a8ryg2QO

Scale = 1:10.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	6	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R					Weight: 26 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-5-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-5-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 10, 6, 9, 8, 7

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

**NOTES-**

- 1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



September 7, 2021

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

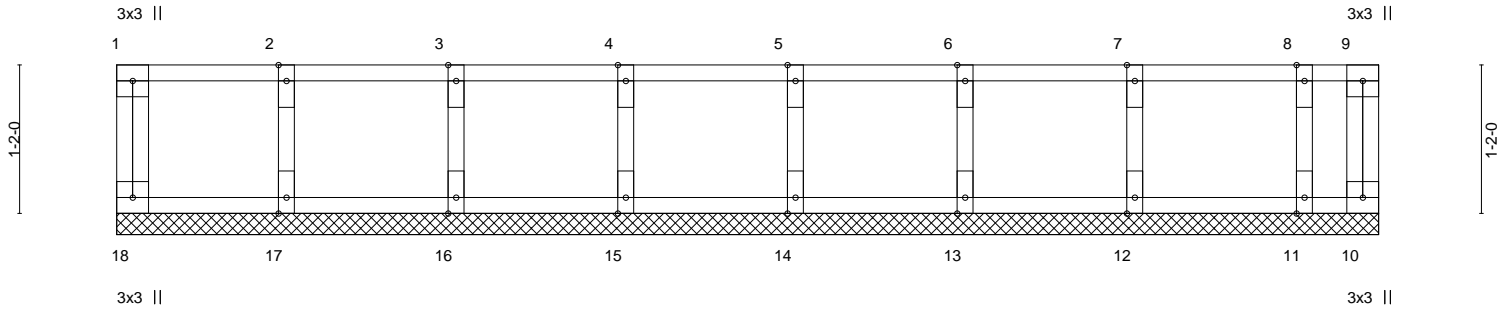
818 Soundside Road  
Edenton, NC 27932

Job 28199A	Truss KW3	Truss Type Floor Supported Gable	Qty 1	Ply 1	LOT 8 PRINCE PLACE - FLOOR I47791006
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:38:15 2021 Page 1  
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Scale = 1:18.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.00	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Lumber DOL 1.00	WB 0.03	Horz(CT)	0.00	10	n/a		
BCDL 5.0	Rep Stress Incr YES	Matrix-R					Weight: 44 lb	FT = 20%F, 11%E
	Code IRC2015/TPI2014							

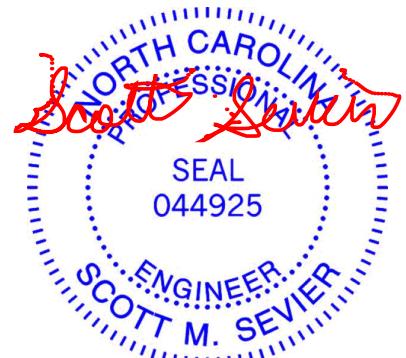
**LUMBER-**  
 TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

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

**REACTIONS.** All bearings 9-11-0.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 18, 10, 17, 16, 15, 14, 13, 12, 11

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

- NOTES-**
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - All plates are 1.5x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



September 7, 2021

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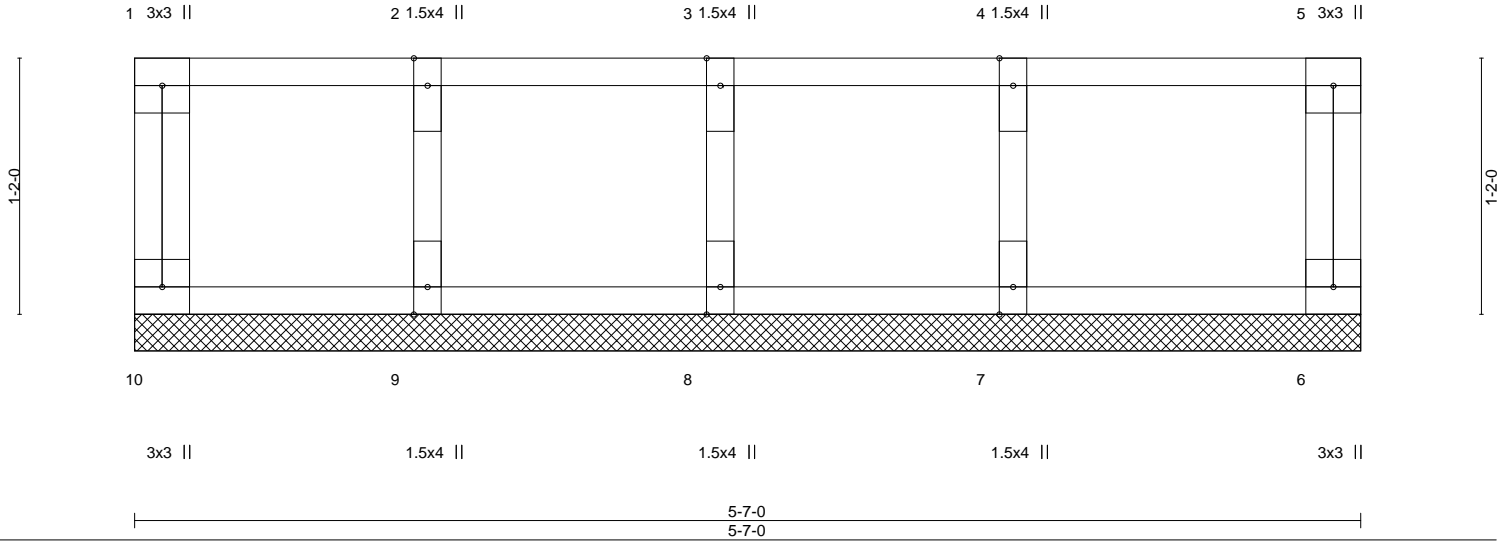


Job 28199A	Truss KW4	Truss Type Floor Supported Gable	Qty 1	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	147791007
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:38:17 2021 Page 1  
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Scale = 1:10.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 40.0	Plate Grip DOL	1.00	TC 0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.02	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R						Weight: 26 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

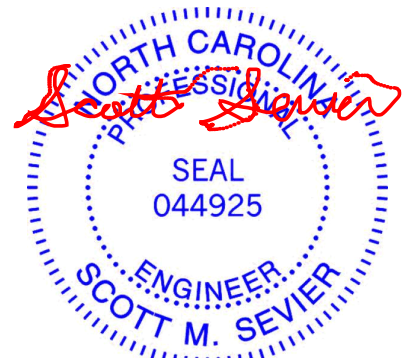
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-7-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-7-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 10, 6, 9, 8, 7

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

**NOTES-**

- 1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



September 7, 2021

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Job 28199A	Truss KW5	Truss Type Floor Supported Gable	Qty 1	Ply 1	LOT 8 PRINCE PLACE - FLOOR Job Reference (optional)	147791008
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 7 10:38:19 2021 Page 1  
ID: NS3h4WSAr6NUQemYdajYWgyykej-ZJ9pOiDQ\_sN3jQg4y0XYqtKlslIODEdcySvMvYg2Ql

0,1-8

Scale = 1:21.1

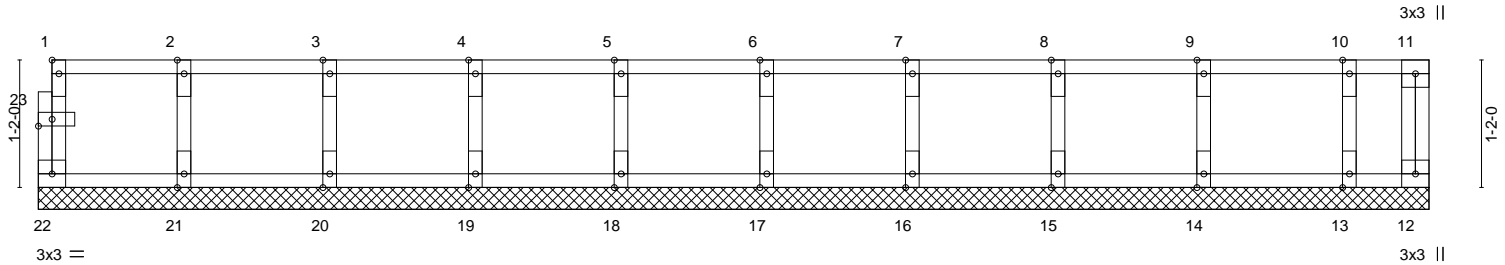


Plate Offsets (X,Y)--	[1:Edge,0-0-12], [23:0-1-8,0-0-12]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0
TCLL 40.0	Plate Grip DOL	1.00
TCDL 10.0	Lumber DOL	1.00
BCLL 0.0	Rep Stress Incr	YES
BCDL 5.0	Code	IRC2015/TPI2014
	<b>CSI.</b>	
	TC	0.08
	BC	0.02
	WB	0.03
	Matrix-R	
	<b>DEFL.</b>	
	Vert(LL)	n/a - n/a 999
	Vert(CT)	n/a - n/a 999
	Horz(CT)	0.00 12 n/a n/a
	<b>PLATES</b>	MT20
	<b>GRIP</b>	197/144
	Weight:	55 lb
	FT =	20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 12-8-12.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 20, 19, 18, 17, 16, 15, 14, 13

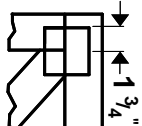
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- 1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 2) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION, Do not erect truss backwards.

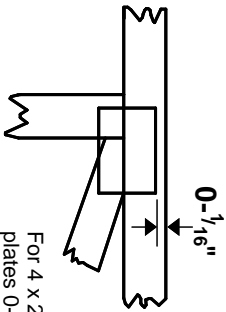


# Symbols

## 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.



This symbol indicates the required direction of slots in connector plates.

\* Plate location details available in **MITek 20/20 software** or upon request.

## PLATE SIZE

**4 X 4**

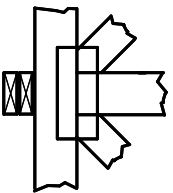
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



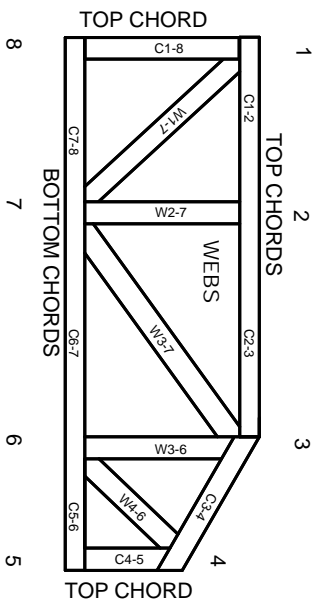
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TFP 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8  
dimensions shown in ft-in-sixteenths  
(Drawings not to scale)



**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/TFP 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/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.