

Lumber design values are in accordance with ANSI/TPI 1-2007 section 6.3 These truss designs rely on lumber values established by others.

RE: 3822916 - Furr, Meadows, 1 Shady Grove

Trenco

818 Soundside Rd Edenton, NC 27932

**Site Information:** 

Project Customer: Furr Construction Project Name:

Lot/Block: 1 Subdivision: SHADY GROVE

Address:

City: LILLINGTON State: NC

Name Address and License # of Structural Engineer of Record, If there is one, for the building.

Name: License #:

Address:

City, County: State:

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

Design Code: IRC2015/TPl2014 Design Program: MiTek 20/20 8.6

Wind Code: ASCE 7-10 Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-10

Wind Speed: 130 mph

Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 15 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Job ID#	Truss Na	ame Date
1	163013027	3822916	F01	1/12/24
	163013028	3822916	F02	1/12/24
3	163013029	3822916	F03	1/12/24
4	163013030	3822916	F04	1/12/24
5	163013031	3822916	F05	1/12/24
6	163013032	3822916	F06	1/12/24
7	163013033	3822916	F07	1/12/24
8 9	163013034 163013035	3822916 3822916	F08 F09	1/12/24
10	163013036	3822916	F10	1/12/24 1/12/24
11	163013037	3822916	F11	1/12/24
12	163013038	3822916	F12	1/12/24
13	163013039	3822916	F13	1/12/24
14	163013040	3822916	F14	1/12/24
17	163013041	3822916	F15	1/12/24

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource-Sumter,SC.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2024.

**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.



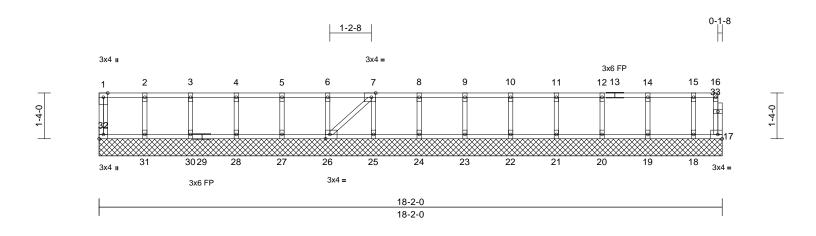
January 12,2024

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F01	Floor Supported Gable	1	1	Job Reference (optional)	163013027

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Jan 12 11:16:17 ID:jnAT?XkIE\_w5TIGBajk0lxyUDHE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:33.6

Plate Offsets (X, Y): [7:0-1-8,Edge], [26:0-1-8,Edge], [32:Edge,0-1-8]

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	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 83 lb	FT = 20%F, 11%E

### LUMBER

TOP CHORD 2x4 SP No.2(flat) 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) **OTHERS** 

**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)

17=18-2-0, 18=18-2-0, 19=18-2-0, 20=18-2-0, 21=18-2-0, 22=18-2-0, 23=18-2-0, 24=18-2-0, 25=18-2-0, 26=18-2-0, 27=18-2-0, 28=18-2-0, 30=18-2-0, 31=18-2-0, 32=18-2-0

Max Grav

17=17 (LC 1), 18=124 (LC 1), 19=152 (LC 1), 20=145 (LC 1), 21=147 (LC 1), 22=147 (LC 1), 23=147 (LC 1), 24=147 (LC 1), 25=146 (LC 1), 26=147 (LC 1), 27=147 (LC 1), 28=147 (LC 1), 30=145 (LC 1), 31=156 (LC 1), 32=52 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-32=-47/0, 16-17=-15/0, 1-2=0/0, 2-3=0/0, 3-4=0/0, 4-5=0/0, 5-6=0/0, 6-7=0/0, 7-8=-1/0,

8-9=-1/0, 9-10=-1/0, 10-11=-1/0, 11-12=-1/0. 12-14=-1/0, 14-15=-1/0, 15-16=-1/0

**BOT CHORD** 31-32=0/0, 30-31=0/0, 28-30=0/0, 27-28=0/0, 26-27=0/0, 25-26=0/1, 24-25=0/1, 23-24=0/1,

22-23=0/1, 21-22=0/1, 20-21=0/1, 19-20=0/1,

18-19=0/1, 17-18=0/1

**WEBS** 2-31=-142/0, 3-30=-132/0, 4-28=-134/0,

5-27=-133/0, 6-26=-133/0, 7-25=-133/0, 8-24=-133/0, 9-23=-133/0, 10-22=-133/0, 11-21=-134/0, 12-20=-132/0, 14-19=-138/0,

15-18=-112/0, 7-26=-1/0

### **NOTES**

1)

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing. 2)
- 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.
- All bearings are assumed to be SP No.2 crushing 5) capacity of 565 psi.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
- 8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



January 12,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

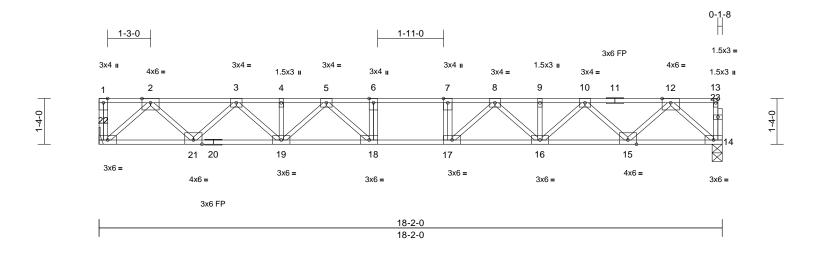
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall

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 and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F02	Floor	5	1	Job Reference (optional)	163013028

Run: 8 63 S. Nov. 1 2023 Print: 8 630 S.Nov. 1 2023 MiTek Industries. Inc. Fri Jan 12 11:16:19 ID:gFPxhTaClVl9s3degQ\_R7hyUDG8-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:33.6

Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	-0.24	17-18	>882	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.80	Vert(CT)	-0.34	17-18	>642	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.06	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 99 lb	FT = 20%F, 11%E

LUMBER

2x4 SP No.2(flat) TOP CHORD

2x4 SP No.2(flat) \*Except\* 20-14:2x4 SP **BOT CHORD** 

No.1(flat)

WEBS 2x4 SP No.3(flat) **OTHERS** 2x4 SP No.3(flat)

**BRACING** TOP CHORD

Structural wood sheathing directly applied or

5-9-13 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc

**BOT CHORD** bracing.

REACTIONS (size) 14=0-3-8, 22= Mechanical

Max Grav 14=979 (LC 1), 22=985 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-22=-39/0, 13-14=-34/0, 1-2=0/0,

2-3=-1797/0, 3-4=-3004/0, 4-5=-3004/0, 5-6=-3616/0, 6-7=-3616/0, 7-8=-3616/0, 8-9=-3004/0, 9-10=-3004/0, 10-12=-1797/0,

12-13=-2/0

BOT CHORD 21-22=0/1064, 19-21=0/2501, 18-19=0/3373,

17-18=0/3616, 16-17=0/3373, 15-16=0/2501,

14-15=0/1063

**WEBS** 2-22=-1416/0, 12-14=-1413/0, 2-21=0/1020, 12-15=0/1020, 3-21=-979/0, 10-15=-980/0,

3-19=0/683, 10-16=0/683, 9-16=-97/0, 4-19=-97/0, 5-19=-502/0, 5-18=-51/629 8-16=-502/0, 8-17=-51/629, 6-18=-299/0,

7-17=-299/0

### NOTES

- Unbalanced floor live loads have been considered for 1) this design.
- All plates are 3x6 MT20 unless otherwise indicated.
- 3) Bearings are assumed to be: , Joint 14 SP No.1 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard



January 12,2024

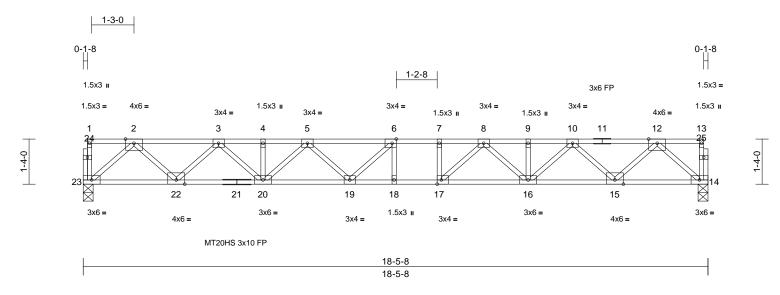
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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 and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F03	Floor	4	1	Job Reference (optional)	163013029

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Jan 12 11:16:19  Page: 1



Scale = 1:34

Plate Offsets (X, Y):	[6:0-1-8,Edge], [1	7:0-1-8,Edge]
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Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	I/defl	1./d	PLATES	GRIP
Loaumy	(psi)	Spacing	2-0-0	631		DEFL	1111	(IUC)	i/ueii	L/u	FLAILS	GKIF
TCLL	40.0	Plate Grip DOL	1.00	TC	0.71	Vert(LL)	-0.28	18-19	>792	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.91	Vert(CT)	-0.38	18-19	>578	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 99 lb	FT = 20%F, 11%E

### LUMBER

TOP CHORD 2x4 SP No.2(flat)

2x4 SP No.2(flat) \*Except\* 21-14:2x4 SP BOT CHORD

No.1(flat)

WFBS 2x4 SP No.3(flat) OTHERS

2x4 SP No.3(flat)

### **BRACING**

**FORCES** 

TOP CHORD Structural wood sheathing directly applied or

4-11-11 oc purlins, except end verticals.

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

REACTIONS (size) 14=0-3-8, 23=0-3-8 Max Grav 14=995 (LC 1), 23=995 (LC 1)

(lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-23=-35/0, 13-14=-34/0, 1-2=-2/0,

2-3=-1833/0, 3-4=-3062/0, 4-5=-3062/0, 5-6=-3648/0, 6-7=-3742/0, 7-8=-3742/0, 8-9=-3067/0, 9-10=-3067/0, 10-12=-1833/0,

12-13=-2/0

BOT CHORD 22-23=0/1081, 20-22=0/2553, 19-20=0/3496,

18-19=0/3742, 17-18=0/3742, 16-17=0/3466,

15-16=0/2550. 14-15=0/1082

WEBS 2-23=-1437/0, 12-14=-1438/0, 2-22=0/1045,

12-15=0/1044, 3-22=-1002/0, 10-15=-997/0, 3-20=0/691, 10-16=0/702, 9-16=-100/0, 8-16=-542/0, 8-17=-28/607, 7-17=-233/0, 4-20=-48/0, 5-20=-590/0, 5-19=-2/359, 6-19=-402/170, 6-18=-199/107

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 1.5x3 MT20 unless otherwise indicated. Bearings are assumed to be: Joint 23 SP No.2 crushing capacity of 565 psi, Joint 14 SP No.1 crushing capacity

- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard



January 12,2024

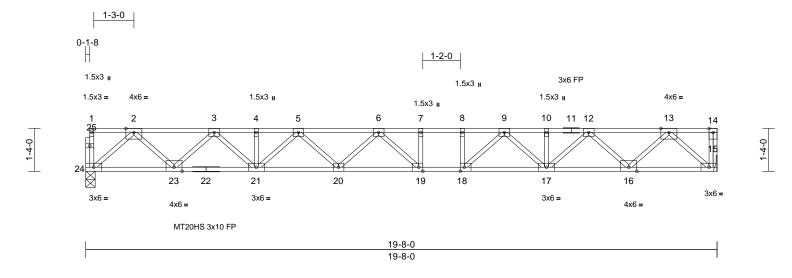
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F04	Floor	6	1	Job Reference (optional)	163013030

Run: 8 63 S. Nov. 1 2023 Print: 8 630 S.Nov. 1 2023 MiTek Industries. Inc. Fri. Jan 12 11:16:20 ID:PhtGASN6MTrO4Zn1iRec\_PyUDCX-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:35.9

Plate Offsets (X, Y):	[18:0-1-8,Edge],	[19:0-1-8,Edge]
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Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	. ,	Plate Grip DOL	1.00	TC	0.72	Vert(LL)	-0.36	19-20	>650	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.49	19-20	>471	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.08	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 105 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)

2x4 SP No.2(flat) \*Except\* 22-15:2x4 SP BOT CHORD

No.1(flat)

WFBS 2x4 SP No.3(flat)

OTHERS 2x4 SP No.3(flat)

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or

4-11-11 oc purlins, except end verticals.

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

bracing, Except:

2-2-0 oc bracing: 19-20,18-19. REACTIONS (size) 15= Mechanical, 24=0-3-8

Max Grav 15=1068 (LC 1), 24=1062 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

TOP CHORD 1-24=-35/0, 14-15=-38/0, 1-2=-2/0,

2-3=-1976/0, 3-4=-3348/0, 4-5=-3348/0, 5-6=-4087/0, 6-7=-4196/0, 7-8=-4196/0,

8-9=-4196/0, 9-10=-3351/0, 10-12=-3351/0, 12-13=-1977/0, 13-14=0/0

BOT CHORD 23-24=0/1156, 21-23=0/2765, 20-21=0/3842,

19-20=0/4281. 18-19=0/4196. 17-18=0/3819.

16-17=0/2762, 15-16=0/1158

WEBS 2-24=-1537/0, 13-15=-1542/0, 2-23=0/1140, 13-16=0/1139 3-23=-1097/0 12-16=-1091/0

3-21=0/793, 12-17=0/801, 10-17=-108/0, 9-17=-636/0, 9-18=0/725, 8-18=-328/0, 4-21=-68/0, 5-21=-672/0, 5-20=0/341 6-20=-320/0. 6-19=-389/320. 7-19=-150/136

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x4 MT20 unless otherwise indicated.
- 4) Bearings are assumed to be: Joint 24 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.

- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

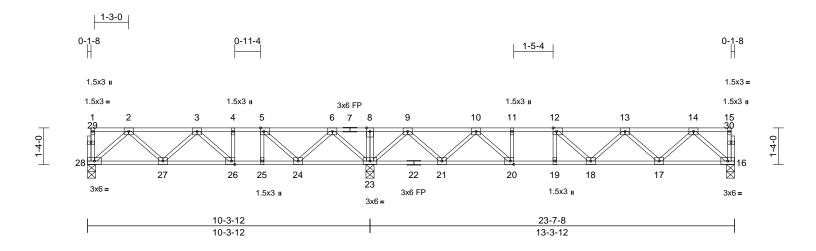


January 12,2024



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F05	Floor	5	1	Job Reference (optional)	I63013031

Run: 8 63 S. Nov. 1 2023 Print: 8 630 S.Nov. 1 2023 MiTek Industries. Inc. Fri Jan 12 11:16:20 ID:zT6aD2dnYdH?O8?ncVzDXdyUD9d-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1



### Scale = 1:42.1

Plate Offsets (X, Y): [5:0-1-8,Edge], [12:0-1-8,Edge], [20:0-1-8,Edge], [26:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.11	18-19	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.93	Vert(CT)	-0.14	18-19	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.03	16	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 125 lb	FT = 20%F, 11%E

### LUMBER

TOP CHORD 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc

bracing.

REACTIONS (size) 16=0-3-8, 23=0-3-8, 28=0-3-8

16=652 (LC 4), 23=1493 (LC 1), Max Grav

28=492 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-28=-36/0, 15-16=-43/0, 1-2=-2/0,

2-3=-748/0, 3-4=-871/93, 4-5=-871/93, 5-6=-486/300, 6-8=0/962, 8-9=0/962, 9-10=-631/84, 10-11=-1547/0, 11-12=-1547/0, 12-13=-1562/0,

13-14=-1095/0, 14-15=-2/0 BOT CHORD 27-28=0/511, 26-27=0/943, 25-26=-93/871,

24-25=-93/871, 23-24=-485/126, 21-23=-263/115, 20-21=0/1158,

19-20=0/1547, 18-19=0/1547, 17-18=0/1484,

16-17=0/682

8-23=-100/0, 2-28=-678/0, 2-27=0/330,

6-23=-913/0, 6-24=0/587, 5-24=-638/0, 3-27=-271/50, 3-26=-300/0, 4-26=0/91, 5-25=0/174, 14-16=-906/0, 14-17=0/573, 13-17=-542/0, 13-18=-9/144, 9-23=-1132/0, 9-21=0/748, 10-21=-771/0, 10-20=0/656, 12-18=-97/185, 12-19=-196/0, 11-20=-269/0

### NOTES

WEBS

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x4 MT20 unless otherwise indicated.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

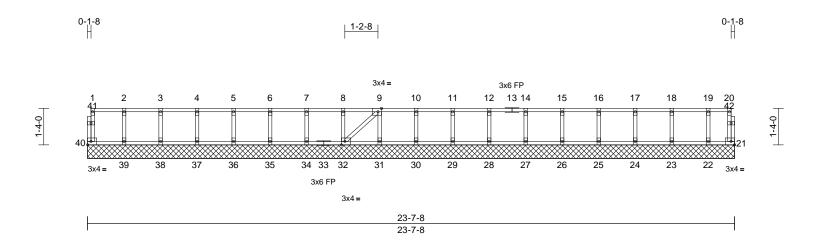


January 12,2024



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F06	Floor Supported Gable	1	1	Job Reference (optional)	163013032

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Jan 12 11:16:20 ID:p3DhaQYW6TJRzafLQOKWT9yUD78-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:42.1

LUMBER

Plate Offsets (X, Y): [9:0-1-8,Edge], [32:0-1-8,Edge]												
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	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	21	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 106 lb	FT = 20%F, 11%E

TOP CHORD	2x4 SP N	o.2(flat)	
BOT CHORD	2x4 SP N	o.2(flat)	
WEBS	2x4 SP N	o.3(flat)	
OTHERS	2x4 SP N	o.3(flat)	
BRACING			WE
TOP CHORD	Structura	I wood sheathing directly applied or	
	6-0-0 oc	ourlins, except end verticals.	
BOT CHORD	Rigid ceil	ing directly applied or 10-0-0 oc	
	bracing.		
REACTIONS	(size)	21=23-7-8, 22=23-7-8, 23=23-7-8,	
		24=23-7-8, 25=23-7-8, 26=23-7-8,	NO
		27=23-7-8, 28=23-7-8, 29=23-7-8,	1)
		30=23-7-8, 31=23-7-8, 32=23-7-8,	2)
		34=23-7-8, 35=23-7-8, 36=23-7-8,	3)
		37=23-7-8, 38=23-7-8, 39=23-7-8,	4)
		40=23-7-8	4)
	Max Grav	21=26 (LC 1), 22=129 (LC 1),	5)
		23=151 (LC 1), 24=146 (LC 1),	

25=147 (LC 1), 26=147 (LC 1), 27=147 (LC 1), 28=147 (LC 1), 29=147 (LC 1), 30=147 (LC 1), 31=148 (LC 1), 32=146 (LC 1), 34=147 (LC 1), 35=147 (LC 1), 36=147 (LC 1), 37=147 (LC 1), 38=146 (LC 1), 39=152 (LC 1), 40=49 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension TOP CHORD

1-40=-44/0, 20-21=-24/0, 1-2=-2/0, 2-3=-2/0, 3-4=-2/0, 4-5=-2/0, 5-6=-2/0, 6-7=-2/0, 7-8=-2/0, 8-9=-2/0, 9-10=-1/0, 10-11=-1/0, 11-12=-1/0, 12-14=-1/0, 14-15=-1/0, 15-16=-1/0, 16-17=-1/0, 17-18=-1/0, 18-19=-1/0, 19-20=-1/0

BOT CHORD 39-40=0/2, 38-39=0/2, 37-38=0/2, 36-37=0/2, 35-36=0/2, 34-35=0/2, 32-34=0/2, 31-32=0/1, 30-31=0/1, 29-30=0/1, 28-29=0/1, 27-28=0/1, 26-27=0/1, 25-26=0/1, 24-25=0/1, 23-24=0/1, 22-23=0/1, 21-22=0/1 BS 2-39=-138/0, 3-38=-133/0, 4-37=-134/0, 5-36=-133/0, 6-35=-133/0, 7-34=-133/0,

8-32=-133/0, 9-31=-134/0, 10-30=-133/0, 11-29=-133/0, 12-28=-133/0, 14-27=-133/0, 15-26=-133/0, 16-25=-134/0, 17-24=-132/0, 18-23=-137/0, 19-22=-117/0, 9-32=0/1

### TES

- All plates are 1.5x3 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

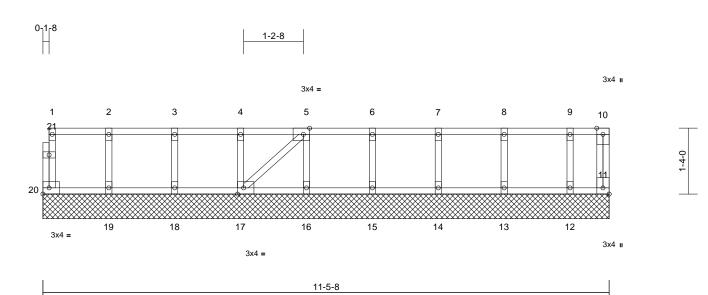


January 12,2024



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F07	Floor Supported Gable	1	1	Job Reference (optional)	l63013033

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Jan 12 11:16:21 ID:AZ3Qml0zwSEv8Z8qC4XfZNyUD6X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:23.3

Plate Offsets (X, Y): [5:0-1-8,Edge], [11:Edge,0-1-8], [17:0-1-8,Edge]

	,											
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 55 lb	FT = 20%F, 11%E

11-5-8

### LUMBER

TOP CHORD 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

### 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=11-5-8, 12=11-5-8, 13=11-5-8, 14=11-5-8, 15=11-5-8, 16=11-5-8, 17=11-5-8, 18=11-5-8, 19=11-5-8,

20=11-5-8

Max Grav 11=18 (LC 1), 12=124 (LC 1), 13=152 (LC 1), 14=145 (LC 1),

15=147 (LC 1), 16=149 (LC 1), 17=145 (LC 1), 18=146 (LC 1),

19=152 (LC 1), 20=49 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

1-20=-44/0, 10-11=-17/0, 1-2=-2/0, 2-3=-2/0, TOP CHORD

3-4=-2/0, 4-5=-2/0, 5-6=0/0, 6-7=0/0,

7-8=0/0, 8-9=0/0, 9-10=0/0

**BOT CHORD** 19-20=0/2, 18-19=0/2, 17-18=0/2, 16-17=0/0, 15-16=0/0, 14-15=0/0, 13-14=0/0, 12-13=0/0,

11-12=0/0

WEBS 2-19=-138/0, 3-18=-133/0, 4-17=-134/0, 5-16=-135/0, 6-15=-134/0, 7-14=-132/0,

8-13=-138/0. 9-12=-113/0. 5-17=0/3

### **NOTES**

- All plates are 1.5x3 MT20 unless otherwise indicated. 1)
- 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).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



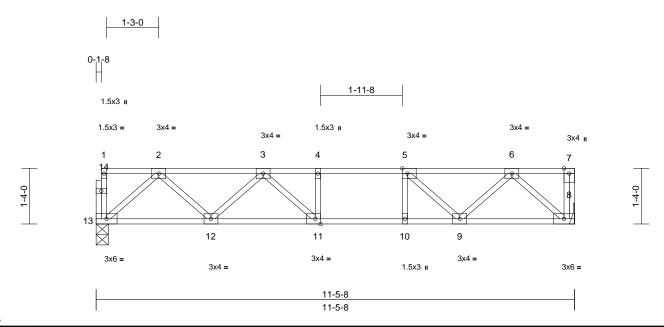
January 12,2024

Page: 1



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F08	Floor	3	1	I6301303 Job Reference (optional)	34

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Jan 12 11:16:21 ID:6DjclFFuSIdCwU5UpaM6qOyUD6E-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:27.6

		i		1	-							
Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.55	Vert(LL)	-0.10	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.13	11-12	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 61 lb	FT = 20%F, 11%E

### LUMBER

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

### 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) 8= Mechanical, 13=0-3-8 Max Grav 8=616 (LC 1), 13=610 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-13=-36/0, 7-8=-44/0, 1-2=-2/0, 2-3=-1004/0, 3-4=-1388/0, 4-5=-1388/0,

5-6=-1001/0, 6-7=0/0

**BOT CHORD** 12-13=0/647, 11-12=0/1318, 10-11=0/1388,

9-10=0/1388, 8-9=0/636

**WEBS** 2-13=-858/0, 6-8=-847/0, 2-12=0/497, 6-9=0/508, 3-12=-436/0, 5-9=-543/0,

3-11=-53/305, 4-11=-152/0, 5-10=-32/136

### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- All plates are 3x4 MT20 unless otherwise indicated.
- Bearings are assumed to be: Joint 13 SP No.2 crushing 3) capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard



January 12,2024

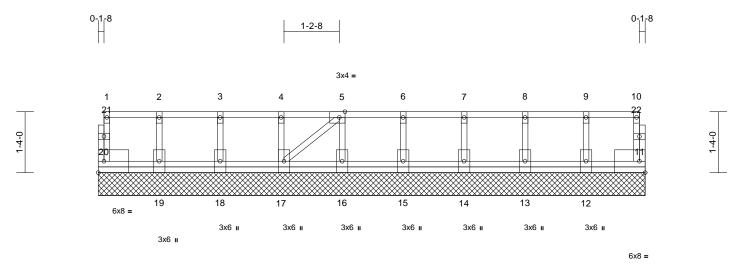
Page: 1



Job Truss Truss Type Qty Ply Furr, Meadows, 1 Shady Grove 163013035 3822916 F09 Floor Supported Gable Job Reference (optional)

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Jan 12 11:16:21 ID:LDIRD8ZCKHvW2U4UL1qCttyUD5q-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:25.2

Plate Offsets	(X,	Y):	[5:0-1-8	B,Edge]
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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	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.00	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 72 lb	FT = 20%F, 11%E

11-11-8 11-11-8

### LUMBER

TOP CHORD 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

### **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=11-11-8, 12=11-11-8,

13=11-11-8, 14=11-11-8, 15=11-11-8, 16=11-11-8, 17=11-11-8, 18=11-11-8,

19=11-11-8, 20=11-11-8 11=46 (LC 1), 12=149 (LC 1),

Max Grav 13=147 (LC 1), 14=147 (LC 1),

15=147 (LC 1), 16=147 (LC 1), 17=147 (LC 1), 18=146 (LC 1),

19=152 (LC 1), 20=49 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-20=-44/0, 10-11=-42/0, 1-2=-2/0, 2-3=-2/0,

3-4=-2/0, 4-5=-2/0, 5-6=-2/0, 6-7=-2/0,

7-8=-2/0, 8-9=-2/0, 9-10=-2/0

**BOT CHORD** 19-20=0/2, 18-19=0/2, 17-18=0/2, 16-17=0/2,

15-16=0/2. 14-15=0/2. 13-14=0/2. 12-13=0/2.

11-12=0/2

2-19=-138/0, 3-18=-133/0, 4-17=-134/0, 5-16=-133/0, 6-15=-133/0, 7-14=-133/0,

8-13=-133/0, 9-12=-135/0, 5-17=0/0

### NOTES

WEBS

- 1) All plates are 1.5x3 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.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard



January 12,2024

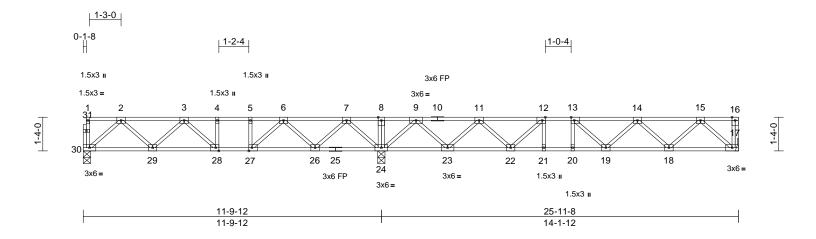
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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 and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F10	Floor	6	1	Job Reference (optional)	l63013036

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Jan 12 11:16:21 ID:qyvgZ6\_941JYksFCuuyQoFyUD5H-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



### Scale = 1:45.6

Plate Offsets (X, Y): [12:0-1-8,Edge], [13:0-1-8,Edge], [27:0-1-8,Edge], [28:0-1-8,Edge]

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	0.62	Vert(LL)	-0.09	19-20	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.78	Vert(CT)	-0.12	19-20	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.03	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 137 lb	FT = 20%F, 11%E

### LUMBER

TOP CHORD 2x4 SP No.2(flat) 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) **OTHERS** 

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc

bracing. REACTIONS (size) 17= Mechanical, 24=0-3-8,

30=0-3-8

Max Grav 17=677 (LC 4), 24=1697 (LC 1),

30=553 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-30=-37/0, 16-17=-45/0, 1-2=-2/0,

2-3=-881/0, 3-4=-1136/125, 4-5=-1136/125, 5-6=-1136/125, 6-7=-424/563, 7-8=0/1470, 8-9=0/1470, 9-11=-448/285, 11-12=-1352/0,

12-13=-1696/0, 13-14=-1642/0, 14-15=-1135/0, 15-16=0/0

BOT CHORD 29-30=0/581, 28-29=0/1137

27-28=-125/1136, 26-27=-350/869, 24-26=-784/0, 23-24=-526/0,

22-23=-93/1034, 21-22=0/1696,

20-21=0/1696, 19-20=0/1696, 18-19=0/1536,

17-18=0/707

WEBS 8-24=-96/0, 2-30=-771/0, 7-24=-1108/0, 2-29=0/417, 7-26=0/729, 3-29=-356/59,

> 6-26=-730/0. 3-28=-289/14. 6-27=0/615 4-28=-26/101, 5-27=-285/0, 9-24=-1262/0, 9-23=0/900, 11-23=-862/0, 11-22=0/495, 12-22=-586/0, 12-21=-21/227, 15-17=-941/0, 15-18=0/595, 14-18=-558/0, 14-19=-29/165,

13-19=-156/179, 13-20=-208/39

NOTES

- 1) Unbalanced floor live loads have been considered for
- All plates are 3x4 MT20 unless otherwise indicated.
- Bearings are assumed to be: Joint 30 SP No.2 crushing capacity of 565 psi, Joint 24 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



January 12,2024

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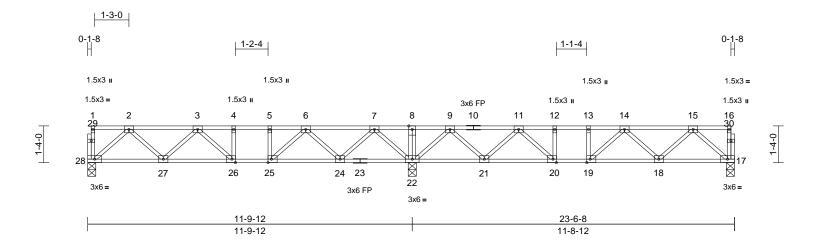
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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 and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F11	Floor	1	1	Job Reference (optional)	163013037

Run: 8 63 S. Nov. 1 2023 Print: 8 630 S.Nov. 1 2023 MiTek Industries. Inc. Fri. Jan 12 11:16:21 ID:MJO8UOOsJATsCxHYKJ29eDyUD4m-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1



### Scale = 1:41.9

Plate Offsets (X, Y): [19:0-1-8,Edge], [20:0-1-8,Edge], [25:0-1-8,Edge], [26:0-1-8,Edge]

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	0.51	Vert(LL)	-0.06	26-27	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.52	Vert(CT)	-0.08	26-27	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.02	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 125 lb	FT = 20%F, 11%E

### LUMBER

TOP CHORD 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

### BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 6-0-0 oc

bracing.

REACTIONS (size) 17=0-3-8, 22=0-3-8, 28=0-3-8

Max Grav 17=559 (LC 4), 22=1512 (LC 1),

28=563 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-28=-36/0, 16-17=-36/0, 1-2=-2/0, 2-3=-901/0, 3-4=-1183/0, 4-5=-1183/0,

5-6=-1183/0, 6-7=-497/258, 7-8=0/1092, 8-9=0/1092, 9-11=-495/266, 11-12=-1167/0, 12-13=-1167/0, 13-14=-1167/0,

14-15=-892/0, 15-16=-2/0

BOT CHORD 27-28=0/592, 26-27=0/1168, 25-26=0/1183,

24-25=-90/931, 22-24=-439/50, 21-22=-448/53, 20-21=-98/923,

19-20=0/1167, 18-19=0/1155, 17-18=0/587 8-22=-88/0, 2-28=-786/0, 7-22=-1052/0,

2-27=0/430, 7-24=0/675, 3-27=-371/0, 6-24=-669/0, 3-26=-202/100, 6-25=0/527, 4-26=-61/63, 5-25=-247/0, 9-22=-1046/0, 15-17=-779/0, 9-21=0/671, 15-18=0/424, 11-21=-663/0, 14-18=-366/0, 11-20=0/517 14-19=-209/95, 12-20=-241/0, 13-19=-58/67

### NOTES

WEBS

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x4 MT20 unless otherwise indicated.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard



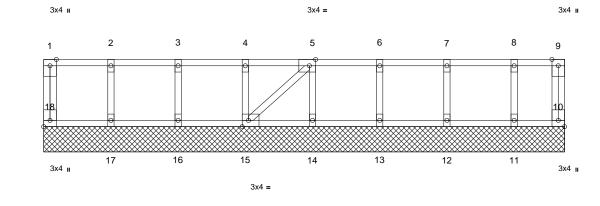
January 12,2024



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F12	Floor Supported Gable	1	1	Job Reference (optional)	163013038

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Jan 12 11:16:22 ID:qmUyGYc84ikJMif0N5NNM?yUD4U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1





Scale = 1:22.9

Plate Offsets (X, Y): [5:0-1-8,Edge], [10:Edge,0-1-8], [15:0-1-8,Edge], [18:Edge,0-1-8]

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	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 51 lb	FT = 20%F, 11%E

10-4-0 10-4-0

### LUMBER

TOP CHORD 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

### BRACING

TOP CHORD Structural wood sheathing directly applied or

10-0-0 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 10=10-4-0, 11=10-4-0, 12=10-4-0,

13=10-4-0, 14=10-4-0, 15=10-4-0, 16=10-4-0, 17=10-4-0, 18=10-4-0

Max Grav 10=33 (LC 1), 11=134 (LC 1),

12=150 (LC 1), 13=146 (LC 1), 14=147 (LC 1), 15=147 (LC 1),

16=145 (LC 1), 17=156 (LC 1),

18=52 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

TOP CHORD

1-18=-47/0, 9-10=-30/0, 1-2=0/0, 2-3=0/0,

3-4=0/0, 4-5=0/0, 5-6=0/0, 6-7=0/0, 7-8=0/0,

BOT CHORD 17-18=0/0, 16-17=0/0, 15-16=0/0, 14-15=0/0, 13-14=0/0, 12-13=0/0, 11-12=0/0, 10-11=0/0

**WEBS** 2-17=-142/0, 3-16=-132/0, 4-15=-134/0,

5-14=-133/0, 6-13=-133/0, 7-12=-136/0,

8-11=-122/0, 5-15=0/0

### NOTES

- 1) All plates are 1.5x3 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard



January 12,2024

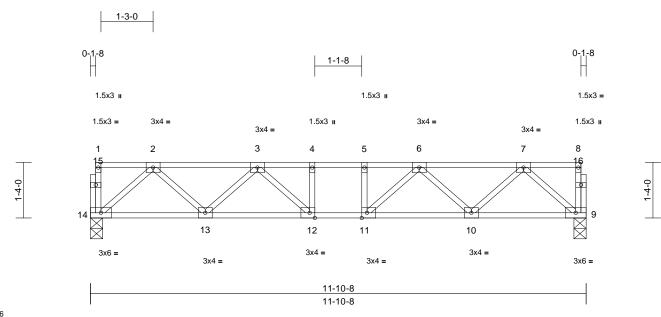
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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 and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F13	Floor	1	1	Job Reference (optional)	163013039

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Jan 12 11:16:22 ID: fwr DWbgvfYUS4d69kMUncGyUD4O-RfC? PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC? full for the first of the firs Page: 1



Scale = 1:27.6

Plate Offsets	(X,	Y):	[11:0-1-8,Edge],	[12:0-1-8,Edge]
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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	0.26	Vert(LL)	-0.05	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.43	Vert(CT)	-0.07	12-13	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 64 lb	FT = 20%F, 11%E

### LUMBER

TOP CHORD 2x4 SP No.2(flat) 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

### 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)

9=0-3-8, 14=0-3-8

Max Grav 9=633 (LC 1), 14=633 (LC 1)

**FORCES** Tension

(lb) - Maximum Compression/Maximum

TOP CHORD 1-14=-35/0, 8-9=-35/0, 1-2=-2/0, 2-3=-1048/0, 3-4=-1522/0, 4-5=-1522/0,

5-6=-1522/0, 6-7=-1048/0, 7-8=-2/0

**BOT CHORD** 13-14=0/671, 12-13=0/1394, 11-12=0/1522,

10-11=0/1394, 9-10=0/671

**WEBS** 2-14=-891/0, 7-9=-891/0, 2-13=0/524, 7-10=0/524, 3-13=-481/0, 6-10=-481/0,

3-12=-25/335, 6-11=-25/335, 4-12=-163/0,

5-11=-163/0

### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- All plates are 3x4 MT20 unless otherwise indicated.
- All bearings are assumed to be SP No.2 crushing 3) capacity of 565 psi.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

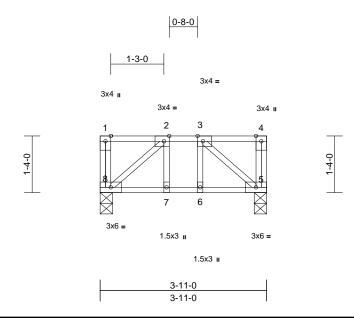


January 12,2024



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F14	Floor	1	1	Job Reference (optional)	l63013040

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Jan 12 11:16:22 ID:rJYoOA0T390URwFYNE\_LIAyUD3y-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:27.1

Plate Offsets (X, Y)	: [2:0-1-8,Edge],	[3:0-1-8,Edge]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL		Plate Grip DOL	1.00	TC	0.13	Vert(LL)	0.00	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.08	Vert(CT)	0.00	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 26 lb	FT = 20%F, 11%E

### LUMBER

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

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or 3-11-0 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 5=0-3-8, 8=0-3-8 Max Grav 5=202 (LC 1), 8=202 (LC 1)

(lb) - Maximum Compression/Maximum

**FORCES** Tension

TOP CHORD 1-8=-65/0, 4-5=-65/0, 1-2=0/0, 2-3=-159/0,

3-4=0/0

**BOT CHORD** 7-8=0/159, 6-7=0/159, 5-6=0/159 WEBS 2-8=-208/0, 3-5=-208/0, 2-7=-15/39,

3-6=-15/39

### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

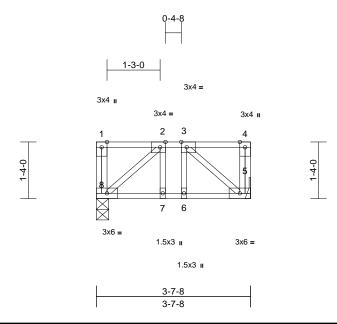


January 12,2024



Job	Truss	Truss Type	Qty	Ply	Furr, Meadows, 1 Shady Grove	
3822916	F15	Floor	1	1	Job Reference (optional)	l63013041

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Jan 12 11:16:22 ID:UuomU5NfE3gNQNz7Zq?9QIyUD3V-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:27.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL		Plate Grip DOL	1.00	TC	0.12	Vert(LL)	0.00	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.07	Vert(CT)	0.00	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 25 lb	FT = 20%F, 11%E

### LUMBER

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

**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, 8=0-3-8

Max Grav 5=186 (LC 1), 8=186 (LC 1) (lb) - Maximum Compression/Maximum

**FORCES** Tension

TOP CHORD 1-8=-64/0, 4-5=-64/0, 1-2=0/0, 2-3=-141/0,

3-4=0/0

**BOT CHORD** 7-8=0/141, 6-7=0/141, 5-6=0/141

WEBS 2-8=-184/0, 2-7=-24/44, 3-5=-184/0,

3-6=-24/44

### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- Bearings are assumed to be: Joint 8 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard





### Symbols

## PLATE LOCATION AND ORIENTATION



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



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

₹

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

\* Plate location details available in MiTek software or upon request

### PLATE SIZE

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

## LATERAL BRACING LOCATION



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

### **BEARING**



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

### ANSI/TPI1: Industry Standards: National Design Specification for Metal

DSB-22:

Plate Connected Wood Trusses Installing, Restraining & Bracing of Metal Guide to Good Practice for Handling, Building Component Safety Information, Design Standard for Bracing. Plate Connected Wood Truss Construction.

## 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-1988, ESR-2362, ESR-2685, ESR-3282 ESR-4722, ESL-1388

## Design General Notes

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

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

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## MiTek



MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

# General Safety Notes

### Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Ņ 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.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other

'n

- joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1. Place plates on each face of truss at each
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

œ

Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

9

- Camber is a non-structural consideration and is the camber for dead load deflection responsibility of truss fabricator. General practice is to
- 11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- 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
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use. environmental, health or performance risks. Consult with
- 19. Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- 21. The design does not take into account any dynamic or other loads other than those expressly stated.