

RE: 4687254
White Oak Homes, Charleston 2

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: WHITE OAK HOMES Project Name: 4687254
Lot/Block: 5 Model: CHARLESTON II
Address: 3162 CAMERON HILL RD Subdivision: CAMERON HILL RD
City: CAMERON State: NC

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

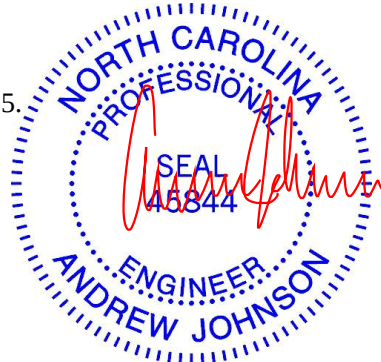
Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.8
Wind Code: ASCE 7-10 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 8 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I72237064	F01	3/25/2025
2	I72237065	F02	3/25/2025
3	I72237066	F03	3/25/2025
4	I72237067	F04	3/25/2025
5	I72237068	F05	3/25/2025
6	I72237069	F06	3/25/2025
7	I72237070	F07	3/25/2025
8	I72237071	F08	3/25/2025

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: Johnson, Andrew
My license renewal date for the state of North Carolina is December 31, 2025.
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.



Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4687254	F01	Floor Supported Gable	1	1	Job Reference (optional)

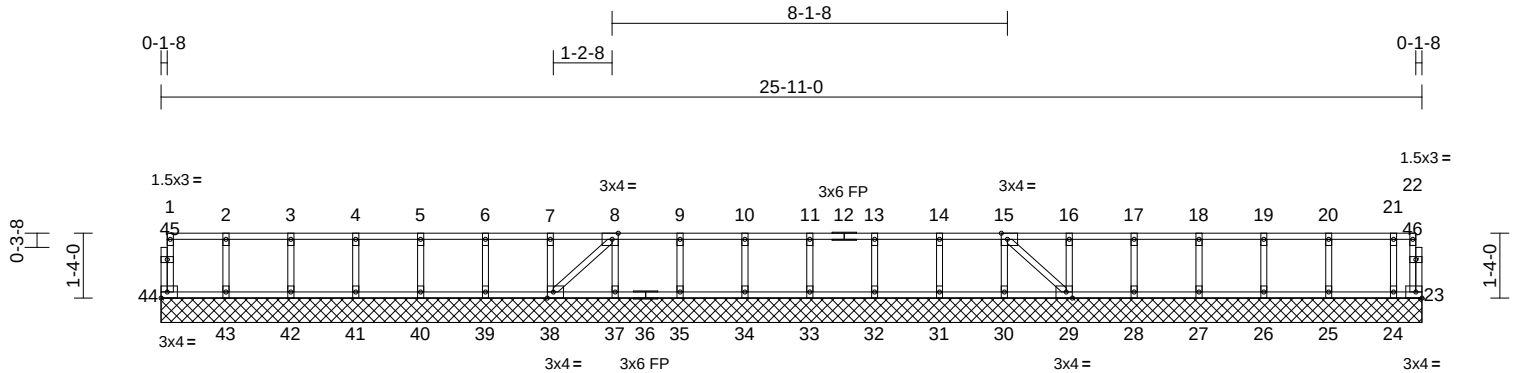
I72237064

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

Run: 8.83 S Mar 11 2025 Print: 8.830 S Mar 11 2025 MiTek Industries, Inc. Mon Mar 24 10:16:36

Page: 1

ID:MtcTcllIPC_VUR7qhOI?Q_VzcHmi-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:47.4

Plate Offsets (X, Y): [8:0-1-8,Edge], [15:0-1-8,Edge], [29:0-1-8,Edge], [38:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	29	n/a	n/a	
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							
Weight: 118 lb FT = 20%F, 11%E											

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP 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, Except:
6-0-0 oc bracing:
28-29,27-28,26-27,25-26,24-25,23-24.

REACTIONS

(size) 23=25-11-0, 24=25-11-0,
25=25-11-0, 26=25-11-0,
27=25-11-0, 28=25-11-0,
29=25-11-0, 30=25-11-0,
31=25-11-0, 32=25-11-0,
33=25-11-0, 34=25-11-0,
35=25-11-0, 37=25-11-0,
38=25-11-0, 39=25-11-0,
40=25-11-0, 41=25-11-0,
42=25-11-0, 43=25-11-0,
44=25-11-0
Max Uplift 23=5 (LC 1)
Max Grav 23=5 (LC 1), 24=81 (LC 1),
25=101 (LC 1), 26=97 (LC 1),
27=98 (LC 1), 28=98 (LC 1),
29=105 (LC 1), 30=91 (LC 1),
31=98 (LC 1), 32=98 (LC 1), 33=98
(LC 1), 34=98 (LC 1), 35=98 (LC
1), 37=92 (LC 1), 38=103 (LC 1),
39=98 (LC 1), 40=98 (LC 1), 41=98
(LC 1), 42=97 (LC 1), 43=101 (LC
1), 44=32 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-44=-29/0, 22-23=0/5, 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=-8/0, 9-10=-8/0, 10-11=-8/0,
11-13=-8/0, 13-14=-8/0, 14-15=-8/0,
15-16=0/0, 16-17=0/0, 17-18=0/0, 18-19=0/0,
19-20=0/0, 20-21=0/0, 21-22=0/0
BOT CHORD 43-44=0/2, 42-43=0/2, 41-42=0/2, 40-41=0/2,
39-40=0/2, 38-39=0/2, 37-38=0/8, 35-37=0/8,
34-35=0/8, 33-34=0/8, 32-33=0/8, 31-32=0/8,
30-31=0/8, 29-30=0/8, 28-29=0/0, 27-28=0/0,
26-27=0/0, 25-26=0/0, 24-25=0/0, 23-24=0/0
WEBS 2-43=-92/0, 3-42=-88/0, 4-41=-89/0,
5-40=-89/0, 6-39=-89/0, 7-38=-89/0,
8-37=-83/0, 9-35=-89/0, 10-34=-89/0,
11-33=-89/0, 13-32=-89/0, 14-31=-89/0,
15-30=-82/0, 16-29=-89/0, 17-28=-89/0,
18-27=-89/0, 19-26=-88/0, 20-25=-92/0,
21-24=-73/0, 8-38=-8/0, 15-29=-11/0

NOTES

- 1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
- 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) All bearings are assumed to be SP No.2 .
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 23.
- 7) 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

March 25,2025

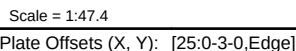
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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)

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818 Soundside Road
Edenton, NC 27932

Builders FirstSource (Sumter, SC), Sumter, SC - 29153, Run: 8.83 S Mar 11 2025 Print: 8.830 S Mar 11 2025 MiTek Industries, Inc. Mon Mar 24 10:16:37 Page: 1
ID:U7Ornl2qJeiQVBdnq61Mzcl5J-RfC?PsB70Hq3NSaPanL8w3ulTXbGKWrcDoi7J4zJC?f

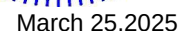


LUMBER		2) All plates are 3x6 () MT20 unless otherwise indicated.
TOP CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS(flat)	3) All bearings are assumed to be SP DSS or SS or 2400F 2.0E .
BOT CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS(flat)	4) Required 2x6 strongbacks, on edge, spaced at 10-00-00 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.
WEBS	2x4 SP No.3(flat)	
OTHERS	2x4 SP No.3(flat)	
BRACING		LOAD CASE(S) Standard

REACTIONS (size) 18=0-3-8, 33=0-3-8
Max Grav 18=937 (LC 1), 33=937 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-33=-29/0, 17-18=-29/0, 1-2=-3/1, 2-3=-1952/0, 3-4=-3504/0, 4-5=-3504/0, 5-6=-4577/0, 6-8=-5222/0, 8-9=-5445/0, 9-10=-5445/0, 10-12=-5221/0, 12-13=-4578/0, 13-14=-3503/0, 14-15=-3503/0, 15-16=-1952/0, 16-17=-3/1
BOT CHORD	32-33=0/1152, 30-32=0/2798, 28-30=0/4137, 27-28=0/5001, 26-27=0/5420, 25-26=0/5445, 24-25=0/5445, 23-24=0/4999, 21-23=0/4137, 19-21=0/2798, 18-19=0/1152
WEBS	2-33=-1423/0, 16-18=-1424/0, 2-32=0/1061, 16-19=0/1061, 3-32=-1120/0, 15-19=-1119/0, 3-30=0/915, 15-21=0/915, 4-30=-45/0, 14-21=-49/0, 5-30=-821/0, 5-28=0/583, 6-28=-560/0, 6-27=0/335, 8-27=-345/0, 13-21=-822/0, 13-23=0/583, 12-23=-558/0, 12-24=0/432, 10-24=-517/93, 10-25=-114/150, 8-26=-286/384, 9-26=-139/81

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

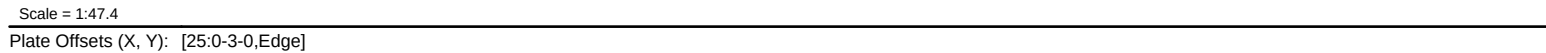


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ID:U7Qrnl2qJeiQVBdnq61Mzc!5J-Rfc?PsB70Hg3NSgPqnL8w3uITXbGKwRcDoI7J4zJC?f



LUMBER		3) All plates are 3x6 () MT20 unless otherwise indicated.
TOP CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS(flat)	4) All bearings are assumed to be SP DSS or SS or 2400F 2.0E .
BOT CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS(flat)	5) Required 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.
WEBS	2x4 SP No.3(flat)	6) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 3-9-12 from the left end to connect truss(es) to back face of top chord.
OTHERS	2x4 SP No.3(flat)	7) Fill all nail holes where hanger is in contact with lumber.
BRACING		8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	LOAD CASE(S) Standard
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
REACTIONS	(size) 18=0-3-8, 33=0-3-8 Max Grav 18=1003 (LC 1), 33=1315 (LC 1)	
FORCES		1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 18-33=-7, 1-17=-67 Concentrated Loads (lb) Vert: 3=-445 (B)
TOP CHORD	1-33=-29/0, 17-18=-30/0, 1-2=-3/1, 2-3=-2831/0, 3-4=-4740/0, 4-5=-4740/0, 5-6=-5659/0, 6-8=-6158/0, 8-9=-6181/0, 9-10=-6181/0, 10-12=-5841/0, 12-13=-5043/0, 13-14=-3814/0, 14-15=-3814/0, 15-16=-2107/0, 16-17=-3/1	
BOT CHORD	32-33=0/1634, 30-32=0/4104, 28-30=0/5293, 27-28=0/6008, 26-27=0/6272, 25-26=0/6181, 24-25=0/6181, 23-24=0/5536, 21-23=0/4529, 19-21=0/3029, 18-19=0/1236	
WEBS	2-33=-2020/0, 16-18=-1528/0, 2-32=0/1587, 16-19=0/1156, 3-32=-1685/0, 15-19=-1220/0, 3-30=0/825, 15-21=0/1017, 4-30=-56/0, 5-30=-717/0, 5-28=0/484, 6-28=-462/0, 6-27=-7/308, 8-27=-314/98, 8-26=-453/342, 9-26=-124/141, 14-21=-48/0, 13-21=-928/0, 13-23=0/681, 12-23=-651/0, 12-24=0/557, 10-24=-685/51, 10-25=-100/210	

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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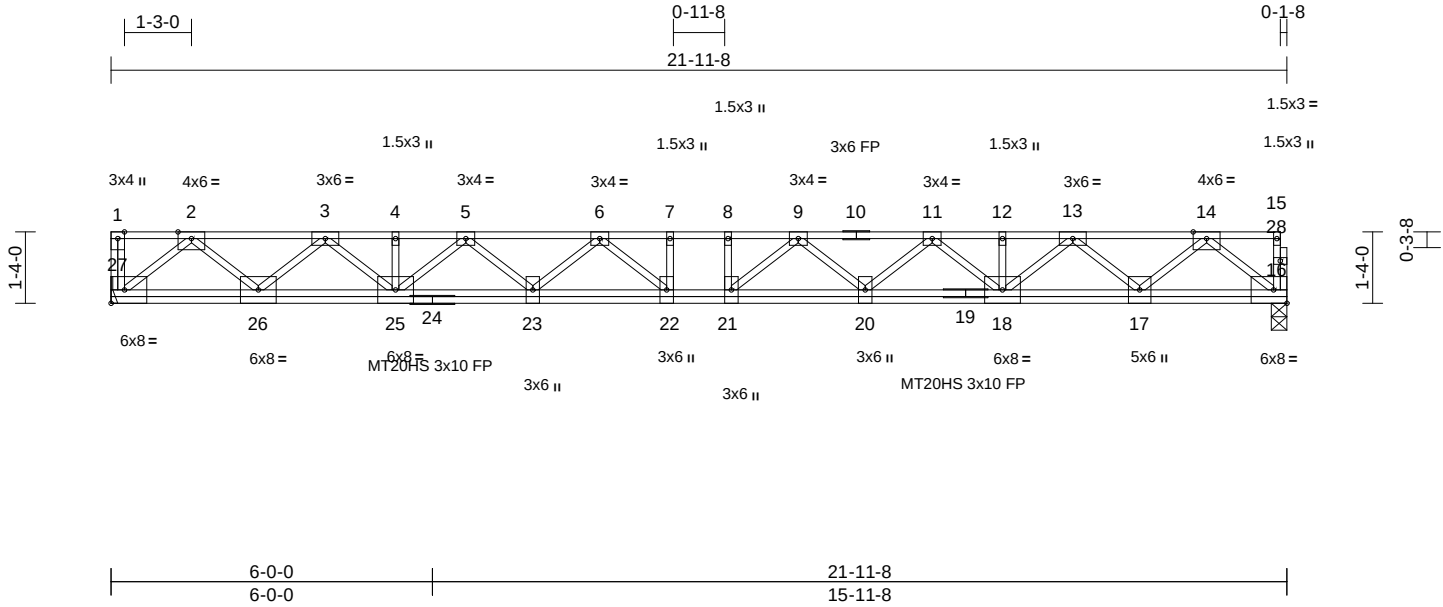
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2	172237067
4687254	F04	Floor	1	1	Job Reference (optional)	

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

Run: 8.83 S Mar 11 2025 Print: 8.830 S Mar 11 2025 MiTek Industries, Inc. Mon Mar 24 10:16:38
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Page: 1



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	0.46	Vert(LL)	-0.36	21-22	>731	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.35	Vert(CT)	-0.49	21-22	>531	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.04	16	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 146 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS(flat)
BOT CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

- 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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-10-12 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

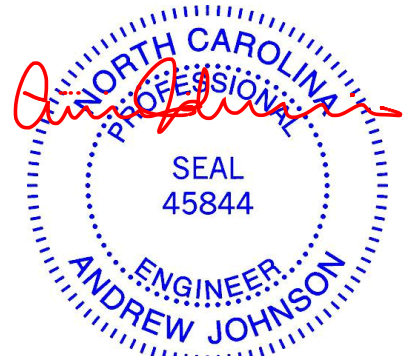
REACTIONS (size) 16=0-3-8, 27= Mechanical
Max Grav 16=1191 (LC 1), 27=1191 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-27=-39/0, 15-16=-35/0, 1-2=0/0, 2-3=-2350/0, 3-4=-4059/0, 4-5=-4059/0, 5-6=-5100/0, 6-7=-5562/0, 7-8=-5562/0, 8-9=-5562/0, 9-11=-5081/0, 11-12=-4025/0, 12-13=-4025/0, 13-14=-2302/0, 14-15=0/0
BOT CHORD	26-27=0/1358, 25-26=0/3312, 23-25=0/4720, 22-23=0/5449, 21-22=0/5562, 20-21=0/5439, 18-20=0/4694, 17-18=0/3271, 16-17=0/1378, 2-27=-1768/0, 14-16=-1743/0, 2-26=0/1345, 14-17=0/1256, 3-26=-1306/0, 13-17=-1315/0, 3-25=0/991, 13-18=0/1000, 12-18=-57/0, 11-18=-888/0, 11-20=0/525, 9-20=-522/0, 9-21=-225/512, 8-21=-134/0, 4-25=-58/0, 5-25=-878/0, 5-23=0/515, 6-23=-514/0, 6-22=-234/503, 7-22=-133/0
WEBS	

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- Bearings are assumed to be: , Joint 16 SP DSS or SS or 2400F 2.0E .
- Refer to girder(s) for truss to truss connections.



March 25, 2025

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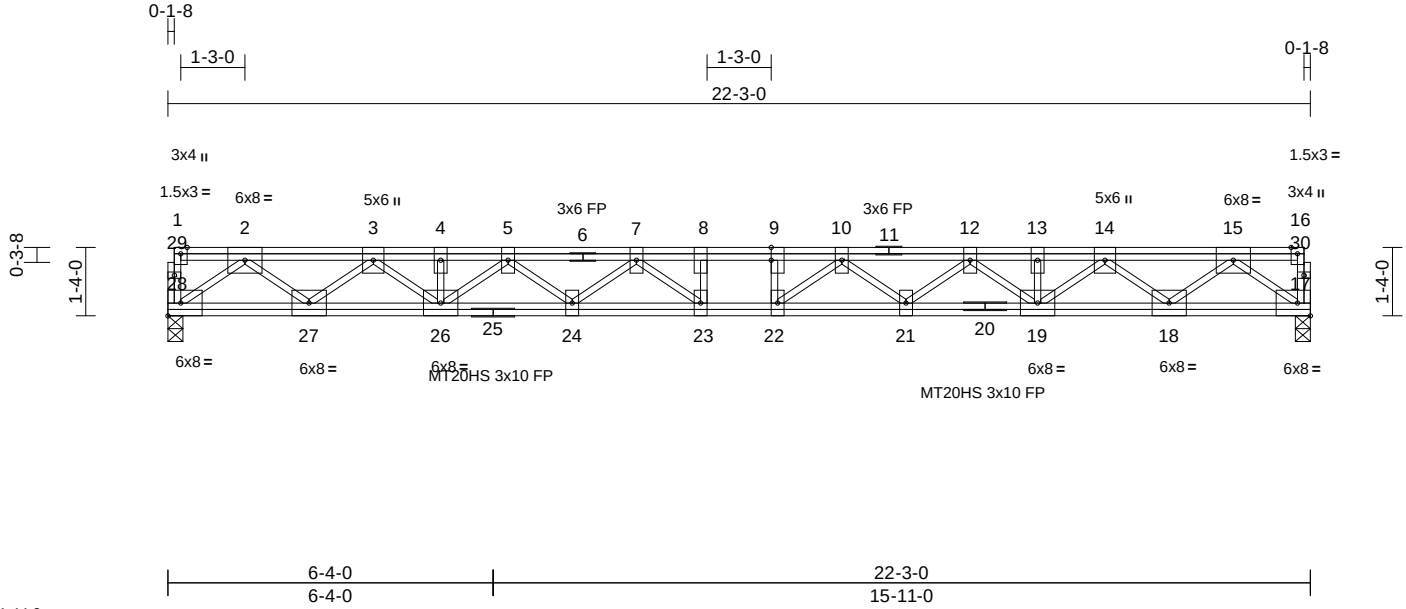
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4687254	F05	Floor	10	1	172237068
Job Reference (optional)					

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

Run: 8.83 S Mar 11 2025 Print: 8.830 S Mar 11 2025 MiTek Industries, Inc. Mon Mar 24 10:16:38
ID:2DA_zPPtRrhM3XF8?bmlulzcHvc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:44.9

Plate Offsets (X, Y): [9:0-3-0,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	0.13	Vert(LL)	-0.28	22-23	>930	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.35	Vert(CT)	-0.39	22-23	>677	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.04	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S								
Weight: 177 lb											FT = 20%F, 11%E	

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS(flat)
BOT CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

- 4) All bearings are assumed to be SP DSS or SS or 2400F 2.0E .
- 5) 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

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.

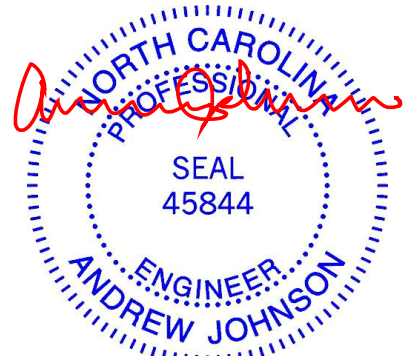
REACTIONS (size) 17=0-3-8, 28=0-3-8
Max Grav 17=1203 (LC 1), 28=1203 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-28=-42/0, 16-17=-42/0, 1-2=-4/1, 2-3=-2456/0, 3-4=-4310/0, 4-5=-4310/0, 5-7=-5447/0, 7-8=-5991/0, 8-9=-5991/0, 9-10=-5991/0, 10-12=-5447/0, 12-13=-4310/0, 13-14=-4310/0, 14-15=-2456/0, 15-16=-4/1
BOT CHORD	27-28=0/1471, 26-27=0/3494, 24-26=0/5024, 23-24=0/5840, 22-23=0/5991, 21-22=0/5840, 19-21=0/5024, 18-19=0/3494, 17-18=0/1471
WEBS	2-28=-1818/0, 15-17=-1818/0, 2-27=0/1306, 15-18=0/1306, 3-27=-1374/0, 14-18=-1374/0, 3-26=0/1058, 14-19=0/1058, 13-19=-67/0, 12-19=-926/0, 12-21=0/560, 4-26=-67/0, 5-26=-926/0, 5-24=0/560, 7-24=-529/0, 7-23=-247/598, 10-21=-529/0, 10-22=-247/598, 9-22=-258/68, 8-23=-258/68

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 3x6 (||) MT20 unless otherwise indicated.



March 25, 2025

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818 Soundside Road
Edenton, NC 27932

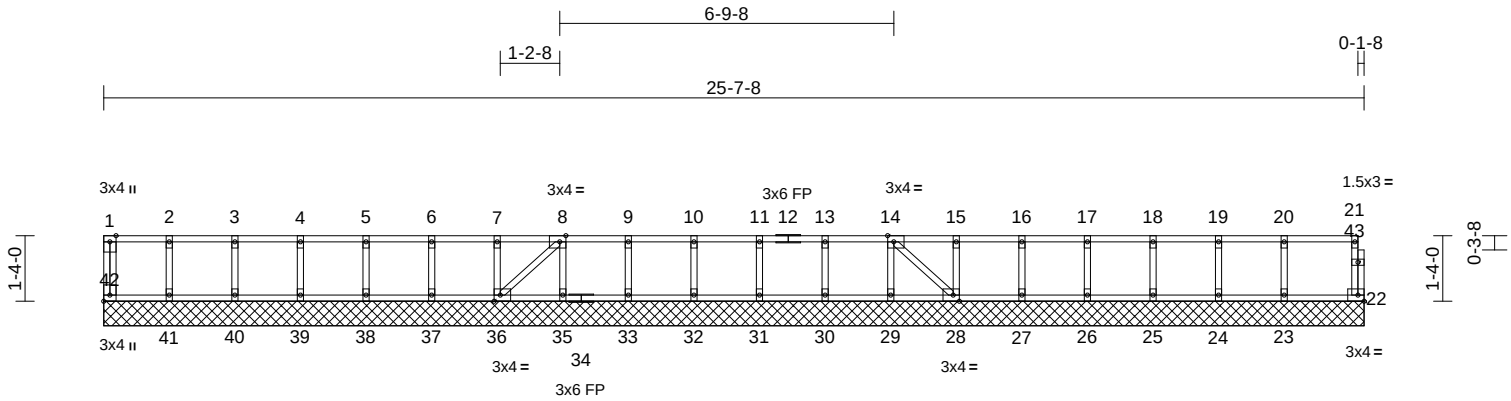
Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4687254	F06	Floor Supported Gable	1	1	Job Reference (optional)
					I72237069

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

Run: 8.83 S Mar 11 2025 Print: 8.830 S Mar 11 2025 MiTek Industries, Inc. Mon Mar 24 10:16:38

Page: 1

ID:luKmACSVzSfBe4ifdvfOWKzcHie-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:46.8

Plate Offsets (X, Y): [8:0-1-8,Edge], [14:0-1-8,Edge], [28:0-1-8,Edge], [36:0-1-8,Edge], [42: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	0.10	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	0.04	Horiz(TL)	0.00	22	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 116 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP 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 (size) 22=25-7-8, 23=25-7-8, 24=25-7-8, 25=25-7-8, 26=25-7-8, 27=25-7-8, 28=25-7-8, 29=25-7-8, 30=25-7-8, 31=25-7-8, 32=25-7-8, 33=25-7-8, 35=25-7-8, 36=25-7-8, 37=25-7-8, 38=25-7-8, 39=25-7-8, 40=25-7-8, 41=25-7-8, 42=25-7-8

Max Grav 22=63 (LC 1), 23=175 (LC 1), 24=139 (LC 1), 25=149 (LC 1), 26=146 (LC 1), 27=147 (LC 1), 28=156 (LC 1), 29=138 (LC 1), 30=147 (LC 1), 31=147 (LC 1), 32=147 (LC 1), 33=147 (LC 1), 35=135 (LC 1), 36=158 (LC 1), 37=147 (LC 1), 38=147 (LC 1), 39=147 (LC 1), 40=145 (LC 1), 41=156 (LC 1), 42=52 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-42=-47/0, 21-22=-58/0, 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, 8-9=-13/0, 9-10=-13/0, 10-11=-13/0, 11-13=-13/0, 13-14=-13/0, 14-15=-3/0, 15-16=-3/0, 16-17=-3/0, 17-18=-3/0, 18-19=-3/0, 19-20=-3/0, 20-21=-3/0

BOT CHORD 41-42=0/0, 40-41=0/0, 39-40=0/0, 38-39=0/0, 37-38=0/0, 36-37=0/0, 35-36=0/13, 33-35=0/13, 32-33=0/13, 31-32=0/13, 30-31=0/13, 29-30=0/13, 28-29=0/13, 27-28=0/3, 26-27=0/3, 25-26=0/3, 24-25=0/3, 23-24=0/3, 22-23=0/3
WEBS 2-41=-142/0, 3-40=-132/0, 4-39=-134/0, 5-38=-133/0, 6-37=-133/0, 7-36=-133/0, 8-35=-122/0, 9-33=-133/0, 10-32=-133/0, 11-31=-133/0, 13-30=-133/0, 14-29=-124/0, 15-28=-133/0, 16-27=-133/0, 17-26=-133/0, 18-25=-135/0, 19-24=-126/0, 20-23=-158/0, 8-36=-18/0, 14-28=-14/0

NOTES

- 1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
- 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) All bearings are assumed to be SP No.2.
- 6) 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



March 25, 2025

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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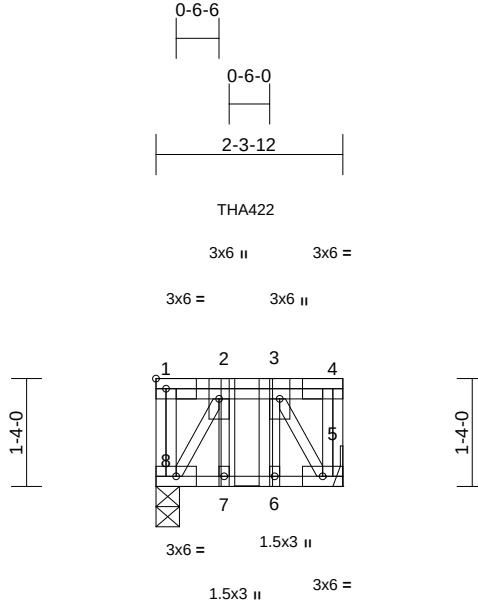
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2	I72237070
4687254	F07	Floor Girder	1	1	Job Reference (optional)	

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

Run: 8.83 S Mar 11 2025 Print: 8.830 S Mar 11 2025 MiTek Industries, Inc. Mon Mar 24 10:16:39
ID:LX_LmEH5DsnY13qMwyzU2azcHo1-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:28.5

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	0.27	Vert(LL)	0.00	7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.27	Vert(CT)	0.00	7	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 22 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or
2-3-12 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=511 (LC 4), 8=866 (LC 3)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-8=-216/0, 4-5=0/117, 1-2=0/0, 2-3=-383/0,
3-4=0/0

BOT CHORD 7-8=0/383, 6-7=0/383, 5-6=0/383

WEBS 3-5=-721/0, 2-7=-98/0, 3-6=0/99, 2-8=-721/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Bearings are assumed to be: Joint 8 SP No.2 .
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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.
- 5) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 1-1-8 from the left end to connect truss(es) to back face of top chord.
- 6) Fill all nail holes where hanger is in contact with lumber.
- 7) 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 (lb/ft)
Vert: 5-8=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 2=-1091 (B)



March 25, 2025

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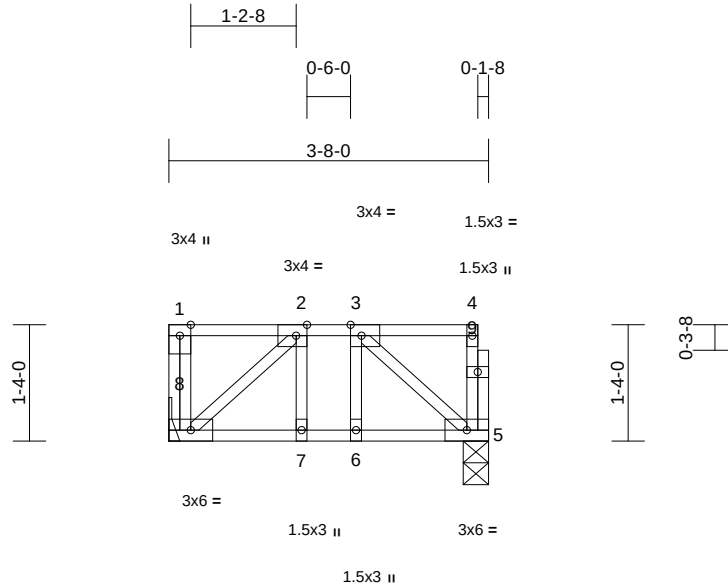
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4687254	F08	Floor	6	1	Job Reference (optional)
					I72237071

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

Run: 8.83 S Mar 11 2025 Print: 8.830 S Mar 11 2025 MiTek Industries, Inc. Mon Mar 24 10:16:39
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Page: 1



Scale = 1:26.4

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,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	0.12	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)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 5=0-3-8, 8= Mechanical
Max Grav 5=182 (LC 1), 8=188 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-8=-63/0, 4-5=-61/0, 1-2=0/0, 2-3=-140/0,
3-4=-3/0

BOT CHORD 7-8=0/140, 6-7=0/140, 5-6=0/140

WEBS 2-8=-186/0, 3-5=-182/0, 2-7=-18/37,
3-6=-16/40

NOTES

- Unbalanced floor live loads have been considered for this design.
- Bearings are assumed to be: , Joint 5 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- 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



March 25, 2025

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

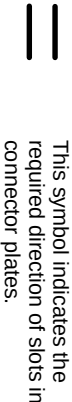
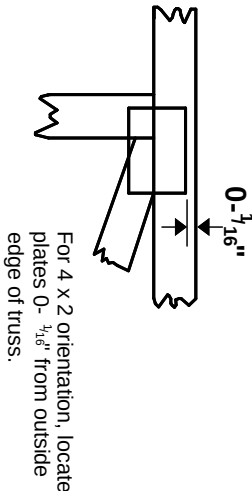
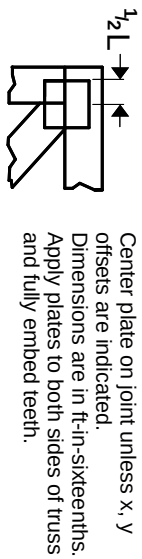
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Symbols

PLATE LOCATION AND ORIENTATION



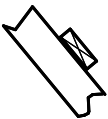
* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

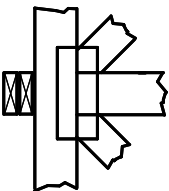
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

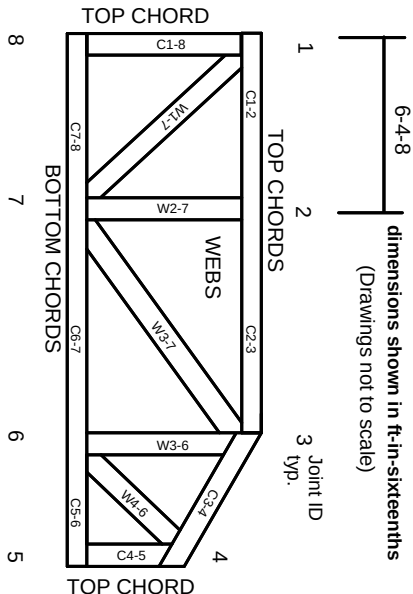
BEARING



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

Industry Standards:
ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:
ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.
Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

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MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023