ENGINEERING BY TRENCO
A MiTek Affiliate

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

RE: 4493329 - White Oak Homes, Charleston 2

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Project Customer: WHITE OAK HOMES Project Name:
Lot/Block: 5 Subdivision: CAMERON HILL RD
Address:
City: CAMERON 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/TPI2014 Design Program: MiTek 20/20 8.8
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 8 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Job ID#	Truss Name	Date
1	I72038229	4493329	F01	3/14/25
2	I72038230	4493329	F02	3/14/25
3	I72038231	4493329	F03	3/14/25
4	I72038232	4493329	F04	3/14/25
5	I72038233	4493329	F05	3/14/25
6		4493329	F06	3/14/25
7	I72038235	4493329	F07	3/14/25
8	I72038236	4493329	F08	3/14/25

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, 2025.

March 14,2025
Gilbert, Eric

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.

ENGINEERING BY TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

RE: $JOBNAME - $JOBDESC

Site Information:

Project Customer: $SI_CUSTOMER Project Name: $SI_JOBNAME
Lot/Block: $SI_LOTNUM Subdivision: $SI_SUBDIV
Address: $SI_SITEADDR
City, County: $SI_SITECITY State: $SI_SITESTATE

ENGINEERING BY TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

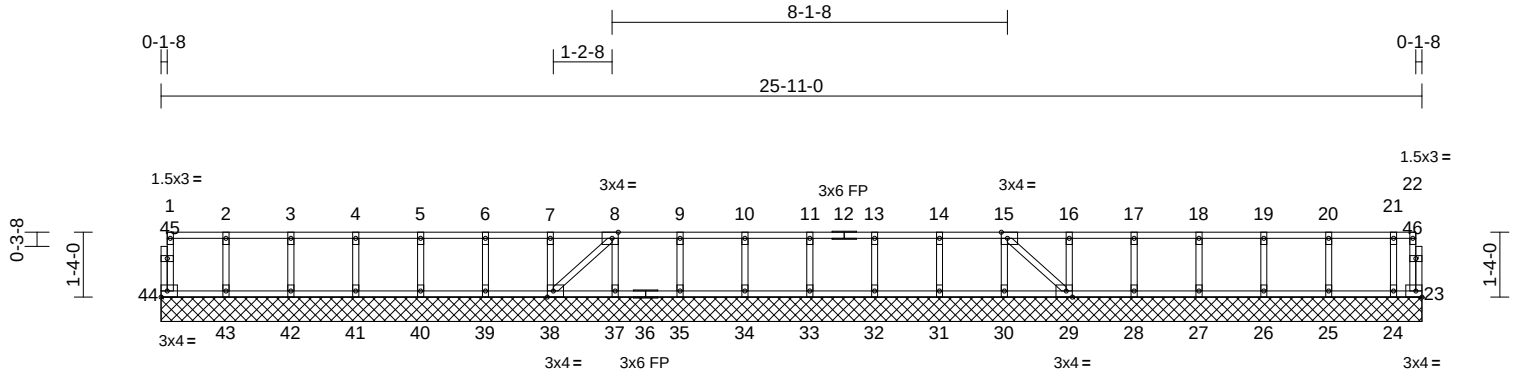
RE: $JOBNAME - $JOBDESC

Site Information:

Project Customer: $SI_CUSTOMER Project Name: $SI_JOBNAME
Lot/Block: $SI_LOTNUM Subdivision: $SI_SUBDIV
Address: $SI_SITEADDR
City, County: $SI_SITECITY State: $SI_SITESTATE

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4493329	F01	Floor Supported Gable	1	1	I72038229 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. Fri Mar 14 08:20:32 Page: 1
ID:MtcTcIIPC_VUR7qhOI?Q_VzcHmi-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?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	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	0.02	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

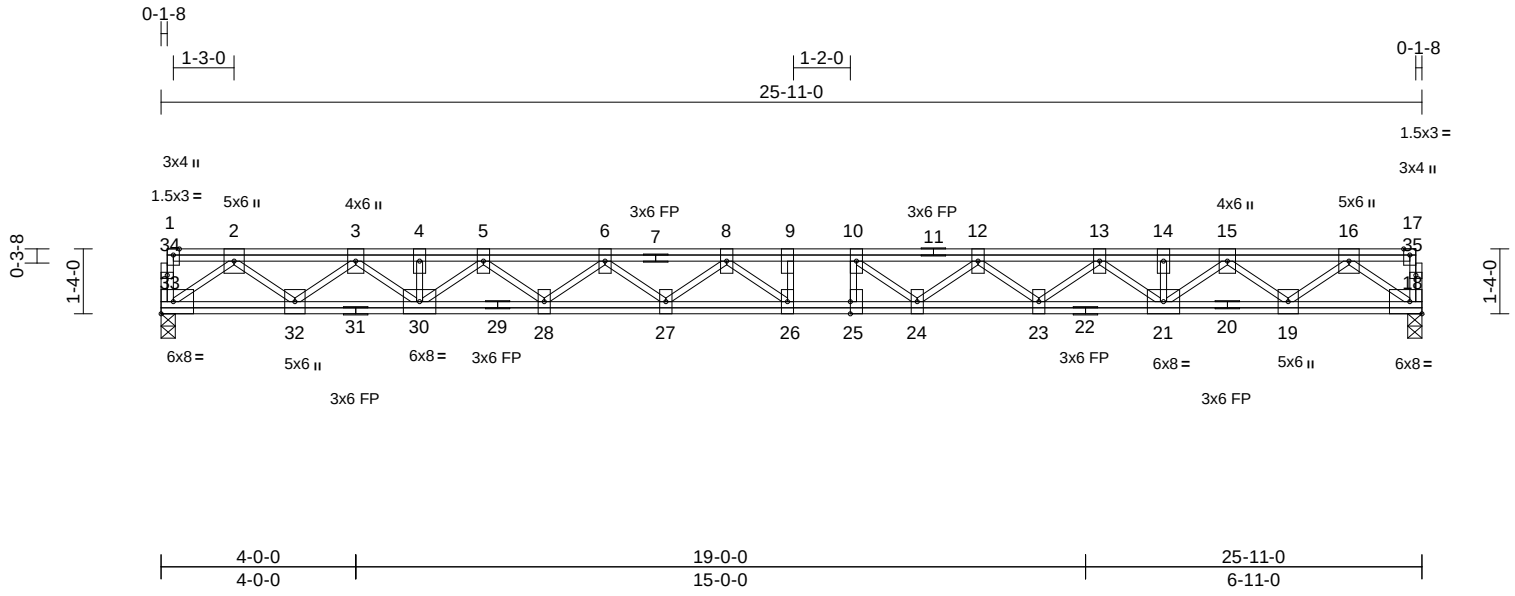
March 14,2025

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4493329	F02	Floor	16	1	I72038230 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. Fri Mar 14 08:20:33 ID:U7QrnIL2qjJeiQVBdnq61MzcI5J-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:47.4

Plate Offsets (X, Y): [25:0-3-0,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	0.11	Vert(LL)	-0.34	26	>898	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.33	Vert(CT)	-0.47	26	>653	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.05	18	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 206 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)

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) 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

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x6 (||) MT20 unless otherwise indicated.
3) All bearings are assumed to be SP DSS or SS or 2400F 2.0E .
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.

LOAD CASE(S) Standard

March 14,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4493329	F03	Floor Girder	1	1	I72038231 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. Fri Mar 14 08:20:34
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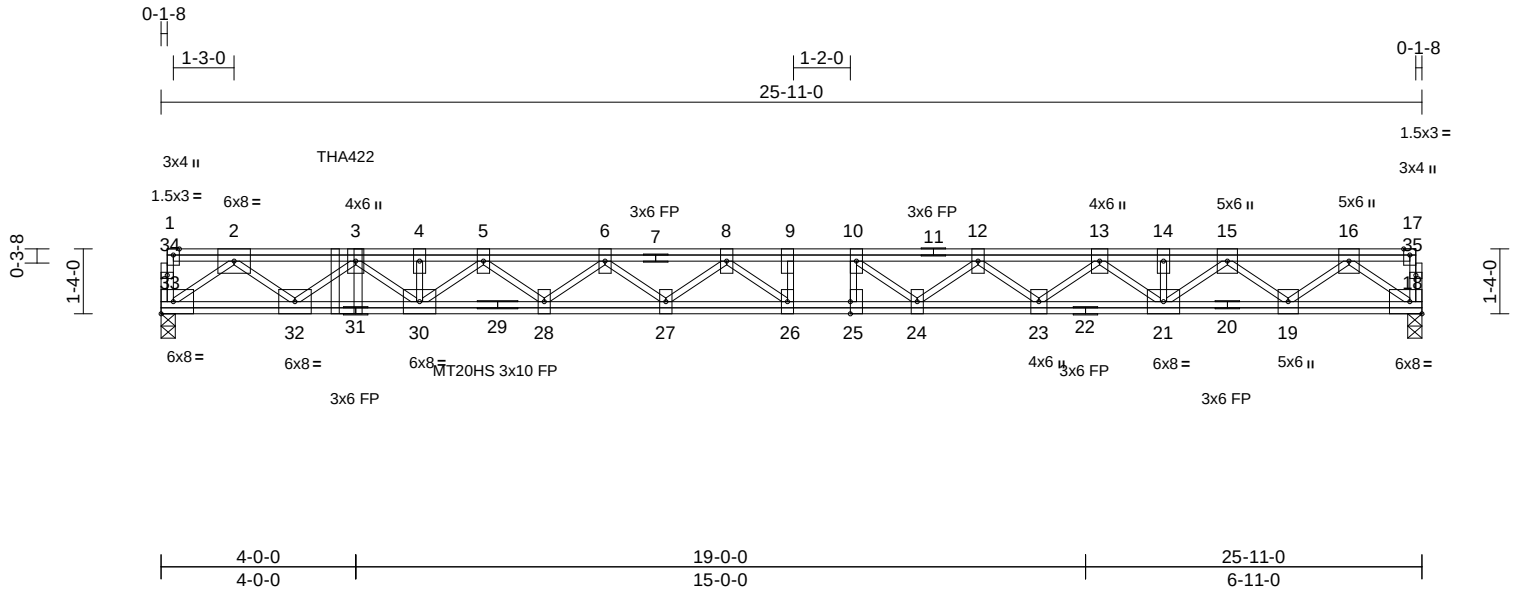
Page: 1



Scale = 1:47.4

Plate Offsets (X, Y): [25:0-3-0,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	0.17	Vert(LL)	-0.40	26-27	>768	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.43	Vert(CT)	-0.55	26-27	>557	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.76	Horz(CT)	0.05	18	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 206 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)

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) 18=0-3-8, 33=0-3-8
Max Grav 18=1003 (LC 1), 33=1315 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

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

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.
4) All bearings are assumed to be SP DSS or SS or 2400F 2.0E .
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.
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.
7) Fill all nail holes where hanger is in contact with lumber.
8) 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: 18-33=-7, 1-17=-67
Concentrated Loads (lb)
Vert: 3=-445 (B)

March 14,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4493329	F04	Floor	1	1	I72038232 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. Fri Mar 14 08:20:34
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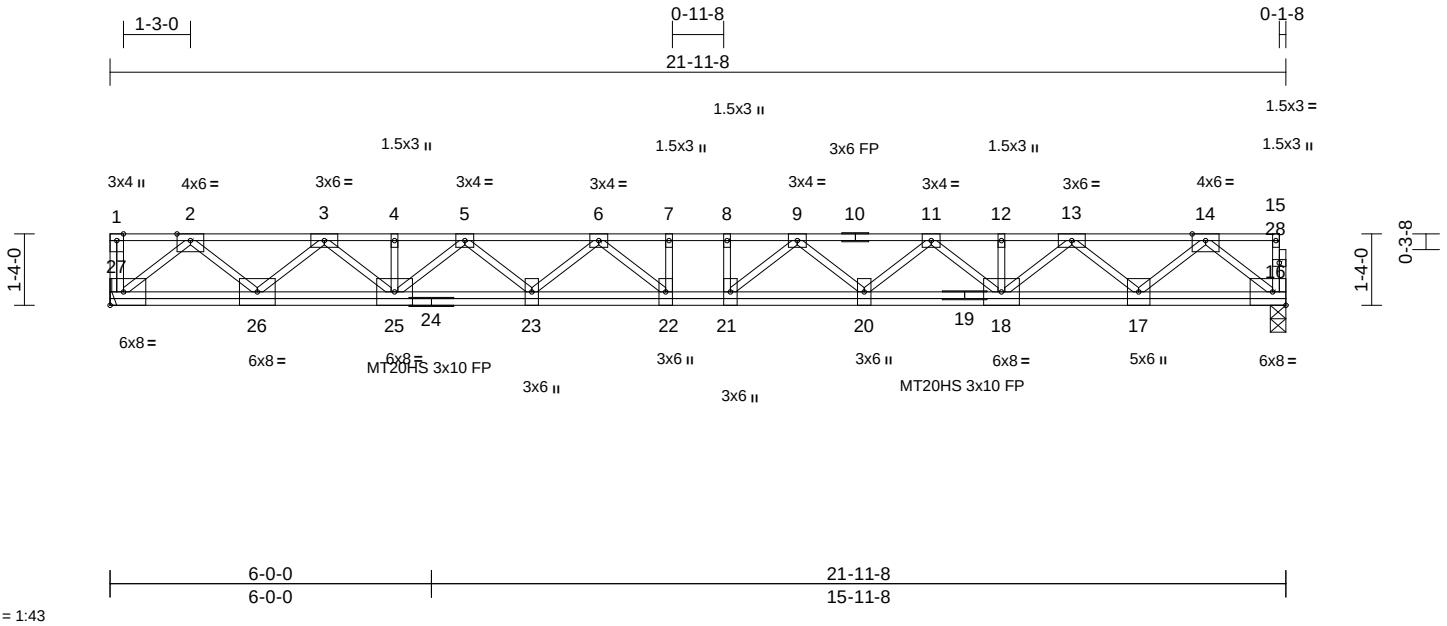
Page: 1



Scale = 1:43

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)

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
WEBS 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

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Bearings are assumed to be: , Joint 16 SP DSS or SS or 2400F 2.0E .
4) Refer to girder(s) for truss to truss connections.
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.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

March 14,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4493329	F05	Floor	10	1	I72038233 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. Fri Mar 14 08:20:34 Page: 1
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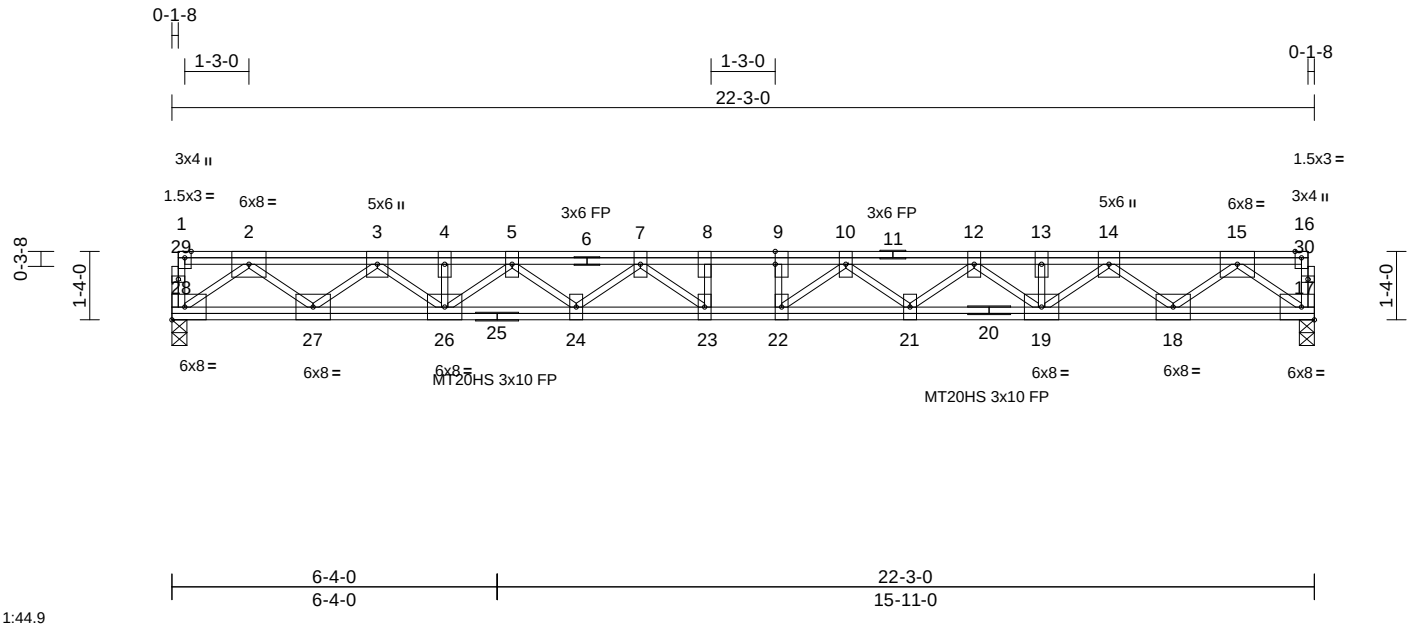


Scale = 1:44.9

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)

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.
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.

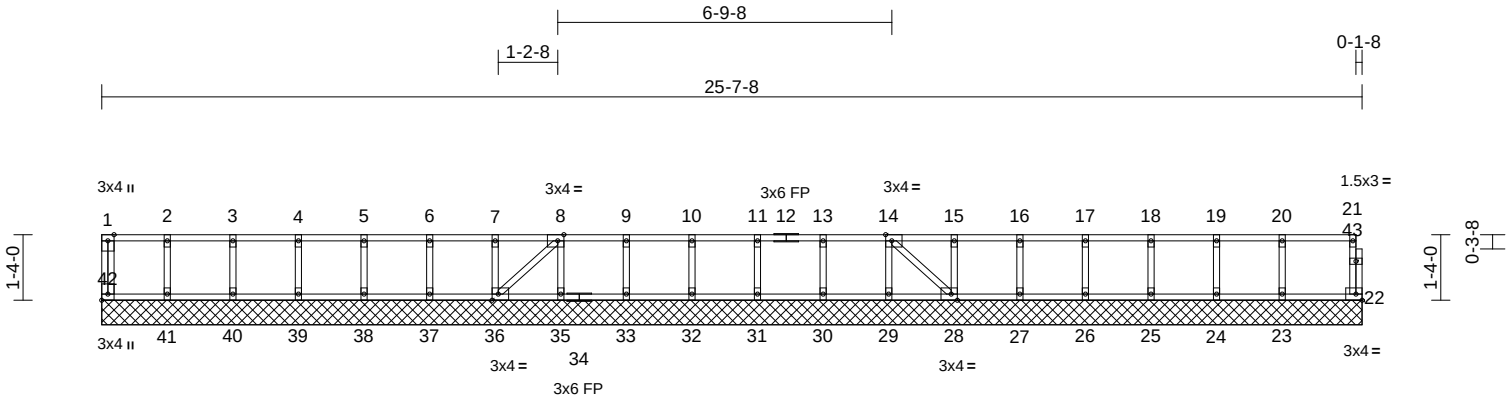
LOAD CASE(S) Standard

March 14,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4493329	F06	Floor Supported Gable	1	1	I72038234 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. Fri Mar 14 08:20:35 Page: 1
ID:luKmACSVzsFbe4ifdvfOWKzcHie-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?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.

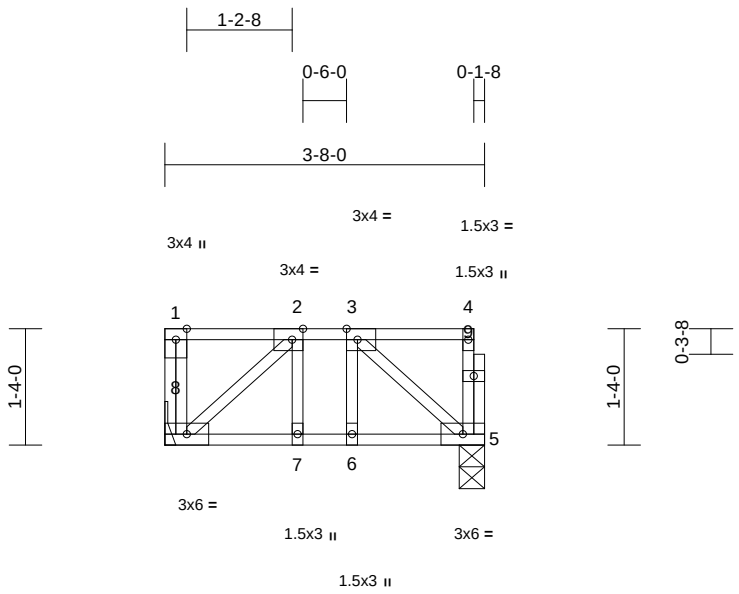
LOAD CASE(S) Standard

March 14,2025

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4493329	F07	Floor	6	1	I72038235 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. Fri Mar 14 08:20:35 Page: 1
ID:OC2IhJb18Ymu4wdzKQtC0szcHiS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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
1) Unbalanced floor live loads have been considered for this design.
2) Bearings are assumed to be: , Joint 5 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) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

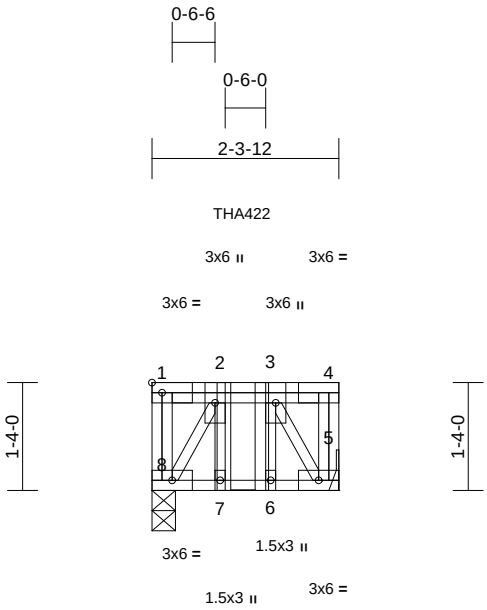
March 14,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	White Oak Homes, Charleston 2
4493329	F08	Floor Girder	1	1	I72038236 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. Fri Mar 14 08:20:35 Page: 1
ID:LX_LmEH5DsnYl3qMwyzU2azcHo1-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



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 14,2025

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A MiTek Affiliate
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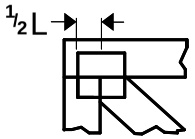
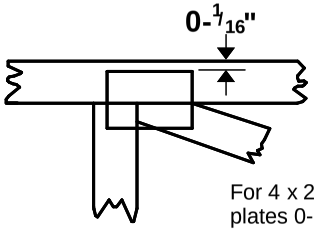
Edenton, NC 27932

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.

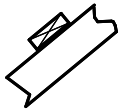
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

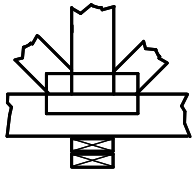
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

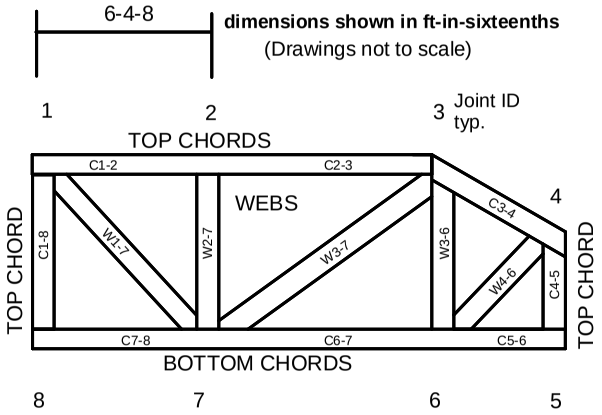


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

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

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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.