ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 21020141-B
2854 Norrington-2nd Floor-Marinette

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Chesapeake, VA).

Pages or sheets covered by this seal: E15512259 thru E15512273

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844

March 18,2021

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.

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette	E15512259
21020141-B	F201	Floor	4	1	Job Reference (optional)	

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Thu Mar 18 08:40:26 Page: 1
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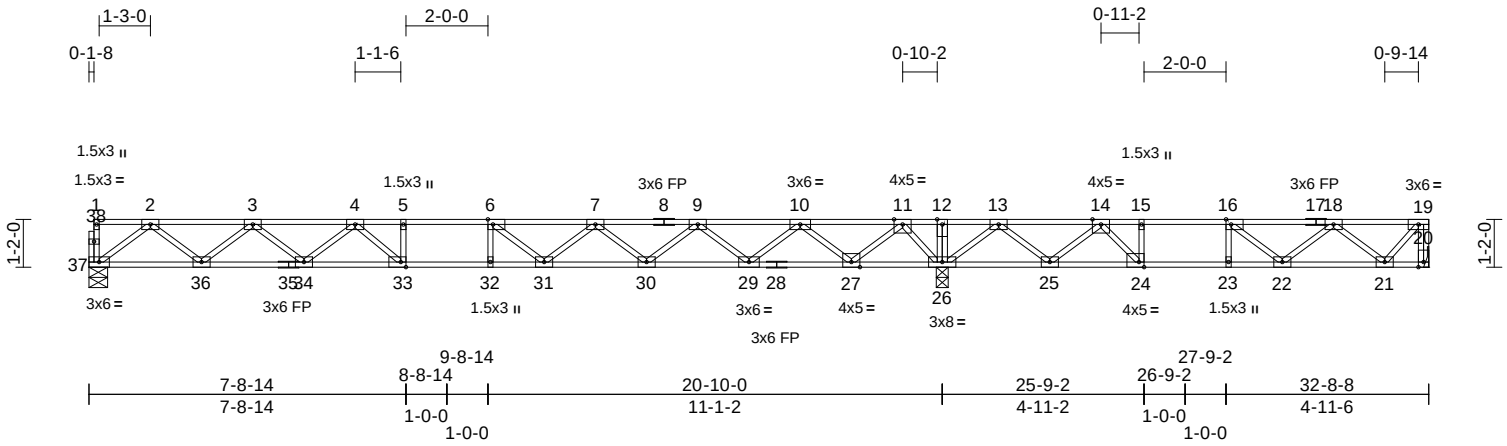

Scale = 1:56.2

Plate Offsets (X, Y): [6:0-1-8,Edge], [16:0-1-8,Edge], [24:0-1-8,Edge], [33:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.94	Vert(LL)	-0.35	31-32	>716	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.97	Vert(CT)	-0.46	31-32	>535	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.06	26	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 162 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) *Except* 8-17:2x4 SP No.1 (flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 35-28:2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS (size) 20= Mechanical, 26=0-3-8, 37=0-5-8
Max Uplift 20=-70 (LC 3)
Max Grav 20=429 (LC 4), 26=1796 (LC 1), 37=786 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 37-38=-32/0, 1-38=-32/0, 19-20=-424/78, 1-2=-2/0, 2-3=-1678/0, 3-4=-2743/0, 4-5=-3374/0, 5-6=-3374/0, 6-7=-3209/0, 7-8=-2533/0, 8-9=-2533/0, 9-10=-1325/0, 10-11=0/724, 11-12=0/2695, 12-13=0/2695, 13-14=-204/1599, 14-15=-947/777, 15-16=-947/777, 16-17=-888/385, 17-18=-888/385, 18-19=-329/73

BOT CHORD 36-37=0/985, 35-36=0/2340, 34-35=0/2340, 33-34=0/3140, 32-33=0/3374, 31-32=0/3374, 30-31=0/3001, 29-30=0/2045, 28-29=-128/578, 27-28=-128/578, 26-27=-1751/0, 25-26=-1928/0, 24-25=-1214/661, 23-24=-777/947, 22-23=-777/947, 21-22=-166/753, 20-21=0/0

WEBS 5-33=-227/0, 6-32=-131/130, 12-26=-49/0, 15-24=-457/0, 16-23=-253/0, 2-37=-1234/0, 2-36=0/902, 3-36=-862/0, 3-34=0/524, 4-34=-518/0, 4-33=-81/527, 6-31=-510/38, 7-31=0/415, 7-30=-633/0, 9-30=0/661, 9-29=-965/0, 10-29=0/1000, 10-27=-1322/0, 11-27=0/1338, 11-26=-1385/0, 13-26=-1147/0, 13-25=0/780, 14-25=-870/0, 14-24=0/931, 16-22=-75/500, 18-22=-285/177, 18-21=-552/122, 19-21=-108/488

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 20.
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 18,2021

ENGINEERING BY
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Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette	E15512260
21020141-B	F202	Floor Girder	1	1	Job Reference (optional)	

Carter Components, Chesapeake, VA - 23323,

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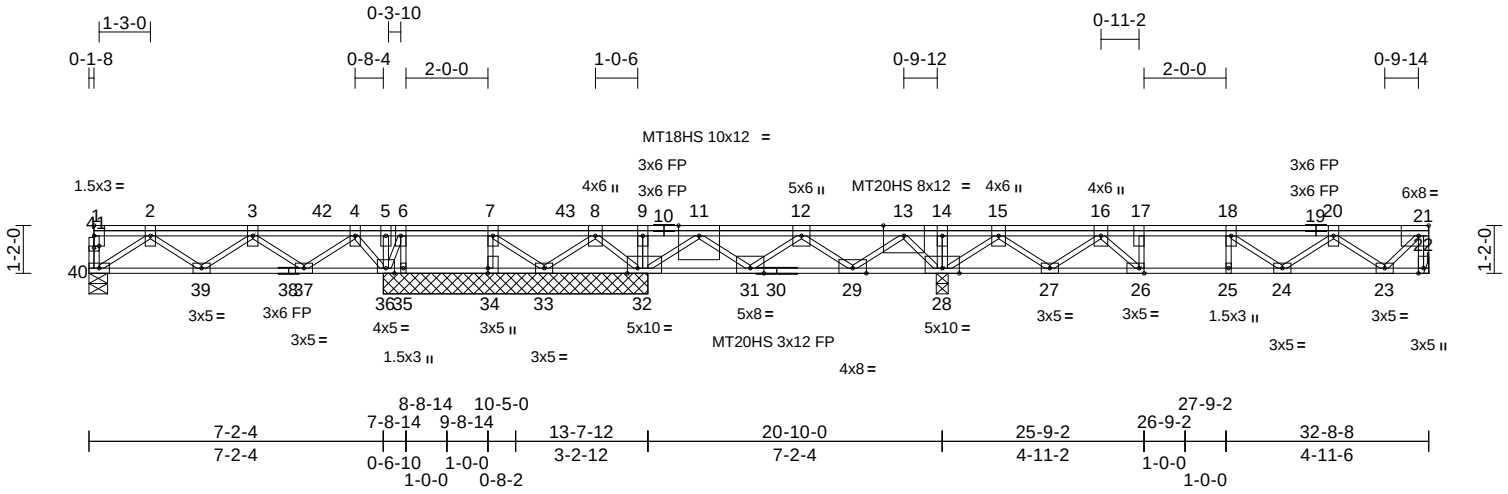

Scale = 1:56.2

Plate Offsets (X, Y): [21:0-3-0,Edge], [26:0-1-8,Edge], [32:0-3-0,Edge], [34:0-1-8,Edge], [41:0-1-8,0-0-8]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	1.00	Vert(LL)	-0.04	29-31	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.07	29-31	>999	240	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	1.00	Horz(CT)	0.02	28	n/a	n/a	MT20HS	187/143
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 210 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) *Except* 1-10,1-10:2x4 SP No.1(flat)

BOT CHORD 2x4 SP No.1(flat) *Except* 40-38:2x4 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 6-0-0 oc bracing.

REACTIONS (size) 22= Mechanical, 28=0-3-8, 32=6-5-8, 33=6-5-8, 34=6-5-8, 35=6-5-8, 36=6-5-8, 40=0-5-8

Max Uplift 33=-84 (LC 6)

Max Grav 22=343 (LC 7), 28=3741 (LC 5), 32=3458 (LC 4), 33=126 (LC 7), 34=1769 (LC 3), 35=633 (LC 4), 36=2236 (LC 3), 40=328 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 40-41=-43/0, 1-41=-43/0, 21-22=-339/0, 1-2=-3/0, 2-3=-565/0, 3-42=-477/0, 4-42=-477/0, 4-5=0/737, 5-6=0/737, 6-7=0/376, 7-43=0/904, 8-43=0/904, 8-9=0/2772, 9-10=0/2772, 10-11=0/2772, 11-12=-2292/0, 12-13=-2486/0, 13-14=0/2093, 14-15=0/2093, 15-16=0/996, 16-17=-507/384, 17-18=-507/384, 18-19=-605/165, 19-20=-605/165, 20-21=-275/1

BOT CHORD 39-40=0/391, 38-39=0/708, 37-38=0/708, 36-37=0/234, 35-36=-376/0, 34-35=-376/0, 33-34=-376/0, 32-33=-1462/0, 31-32=0/697, 30-31=0/3876, 29-30=0/3876, 28-29=0/1088, 27-28=-1321/0, 26-27=-723/0, 25-26=-384/507, 24-25=-384/507, 23-24=-17/626, 22-23=0/0

WEBS 5-36=-104/0, 6-35=-636/0, 7-34=-1750/0, 9-32=0/295, 14-28=-257/0, 17-26=-508/0, 18-25=-76/0, 2-40=-477/0, 2-39=0/221, 3-39=-181/0, 3-37=-295/0, 4-37=0/312, 4-36=-1585/0, 6-36=-933/0, 7-33=-746/0, 8-33=0/741, 8-32=-1838/0, 11-32=-4247/0, 11-31=0/2029, 12-31=-2016/0, 12-29=-1910/0, 13-29=0/1918, 13-28=-3940/0, 15-28=-1027/0, 15-27=0/741, 16-27=-758/0, 16-26=0/842, 18-24=0/272, 20-24=-189/0, 20-23=-446/21, 21-23=-1/395

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 33.
8) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
9) 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.
10) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 22-40=-8, 1-42=-80, 42-43=-870, 11-43=-80, 11-14=-870, 14-21=-80

March 18,2021

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette
21020141-B	F203	Floor	2	1	E15512261 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Thu Mar 18 08:40:30 Page: 1
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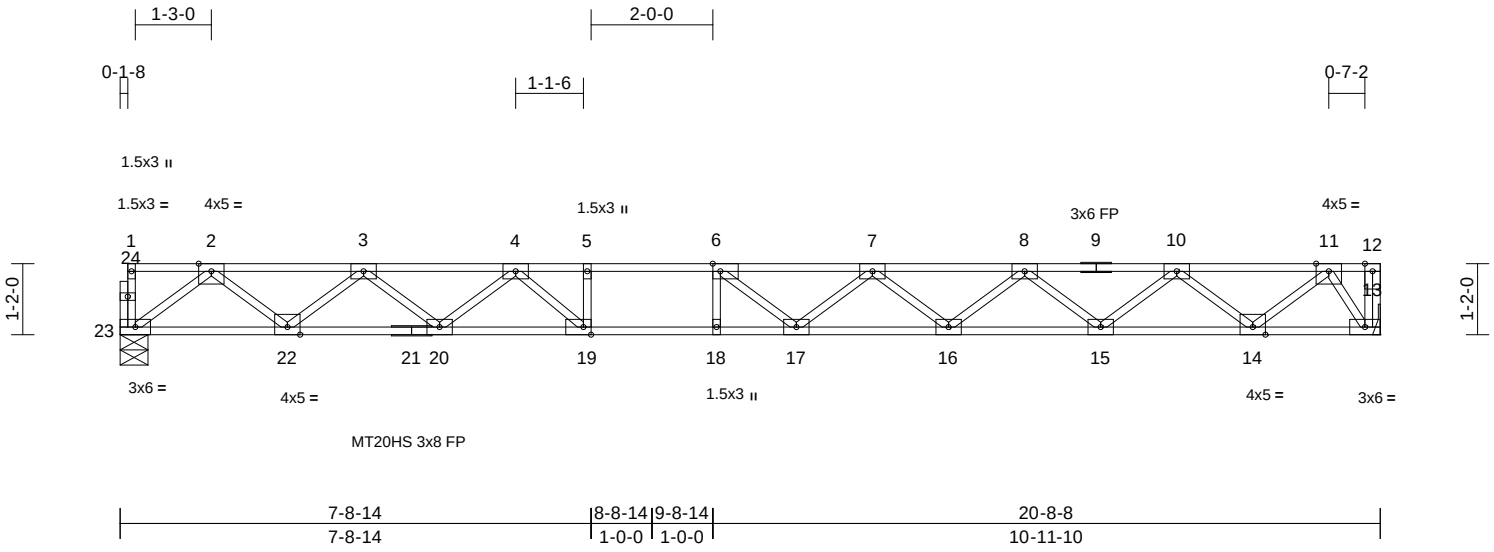

Scale = 1:37.9

Plate Offsets (X, Y): [6:0-1-8,Edge], [19:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.91	Vert(LL)	-0.43	17-18	>566	360	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.59	17-18	>413	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.07	13	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 103 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.1(flat) *Except* 9-12:2x4 SP No.2 (flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 21-13:2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 13= Mechanical, 23=0-5-8
Max Grav 13=900 (LC 1), 23=895 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 23-24=-33/0, 1-24=-33/0, 12-13=0/14, 1-2=-2/0, 2-3=-1955/0, 3-4=-3260/0, 4-5=-4270/0, 5-6=-4270/0, 6-7=-4348/0, 7-8=-3937/0, 8-9=-2986/0, 9-10=-2986/0, 10-11=-1510/0, 11-12=0/0
BOT CHORD 22-23=0/1129, 21-22=0/2740, 20-21=0/2740, 19-20=0/3817, 18-19=0/4270, 17-18=0/4270, 16-17=0/4289, 15-16=0/3573, 14-15=0/2373, 13-14=0/625
WEBS 5-19=-327/0, 6-18=-260/58, 2-23=-1414/0, 2-22=0/1076, 3-22=-1022/0, 3-20=0/676, 4-20=-726/0, 4-19=0/820, 6-17=-314/355, 7-17=-83/288, 7-16=-459/0, 8-16=0/473, 8-15=-764/0, 10-15=0/798, 10-14=-1123/0, 11-14=0/1152, 11-13=-1101/0

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 3x5 MT20 unless otherwise indicated.
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 18,2021

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette
21020141-B	F204	Floor	1	1	E15512262
					Job Reference (optional)

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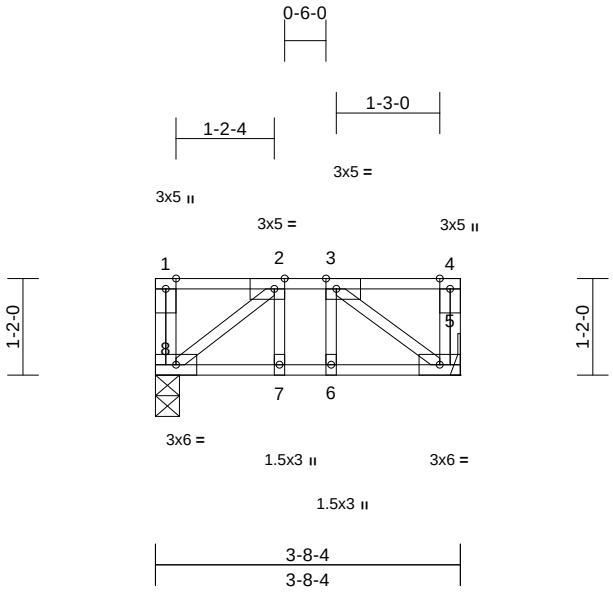

Scale = 1:27.9

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.06	Vert(CT)	0.00	5-6	>999	240		
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-MSH							Weight: 24 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 3-8-4 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=151 (LC 1), 8=151 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-50/0, 4-5=-52/0, 1-2=0/0, 2-3=-132/0, 3-4=0/0
BOT CHORD 7-8=0/132, 6-7=0/132, 5-6=0/132
WEBS 3-5=-163/0, 2-8=-166/0, 2-7=-13/34, 3-6=-17/30

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) 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 18,2021

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette
21020141-B	F205	Floor	8	1	E15512263 Job Reference (optional)

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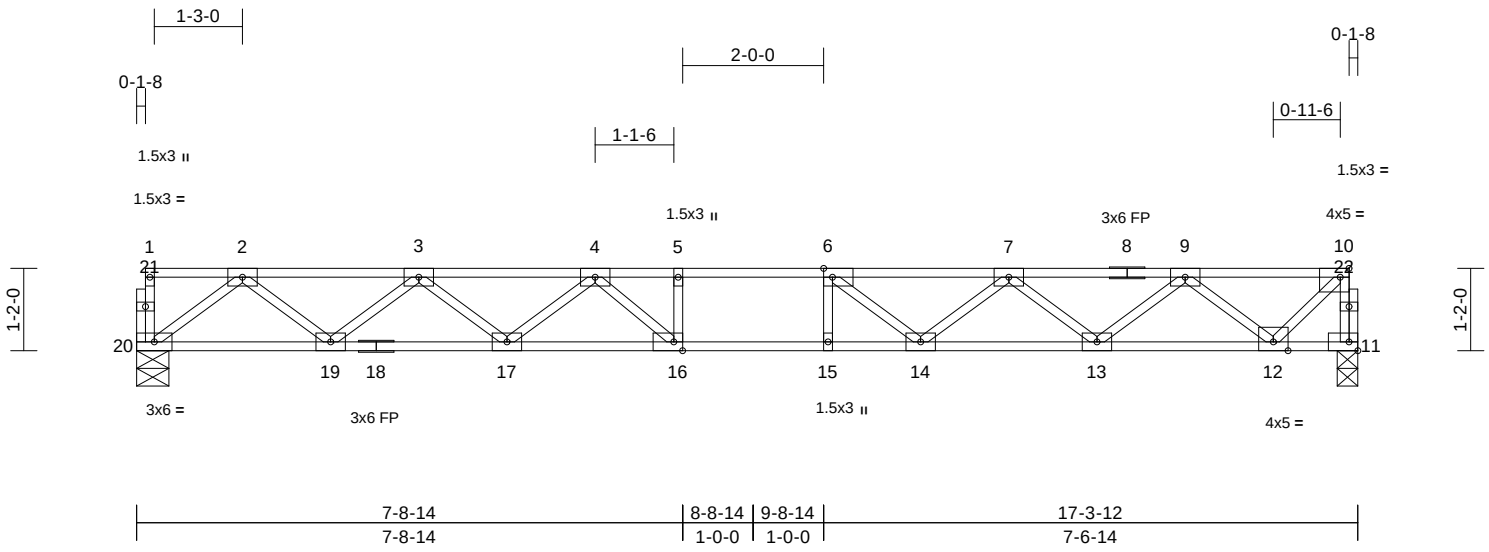

Scale = 1:32.7

Plate Offsets (X, Y): [6:0-1-8,Edge], [10:0-1-8,Edge], [16:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	-0.21	15-16	>957	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.80	Vert(CT)	-0.29	15-16	>695	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.05	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 86 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 18-11:2x4 SP No.1(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) 11=0-3-8, 20=0-5-8
Max Grav 11=746 (LC 1), 20=746 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 20-21=-31/0, 1-21=-31/0, 11-22=-743/0, 10-22=-742/0, 1-2=-2/0, 2-3=-1575/0, 3-4=-2550/0, 4-5=-3040/0, 5-6=-3040/0, 6-7=-2784/0, 7-8=-2012/0, 8-9=-2012/0, 9-10=-695/0
BOT CHORD 19-20=0/932, 18-19=0/2191, 17-18=0/2191, 16-17=0/2889, 15-16=0/3040, 14-15=0/3040, 13-14=0/2519, 12-13=0/1480, 11-12=0/45
WEBS 5-16=-205/0, 6-15=-108/131, 2-20=-1166/0, 2-19=0/838, 3-19=-802/0, 3-17=0/467, 4-17=-441/0, 4-16=-82/469, 6-14=-512/0, 7-14=0/416, 7-13=-661/0, 9-13=0/692, 9-12=-1022/0, 10-12=0/934

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) 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 18,2021

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette
21020141-B	F207	Floor Supported Gable	1	1	E15512264 Job Reference (optional)

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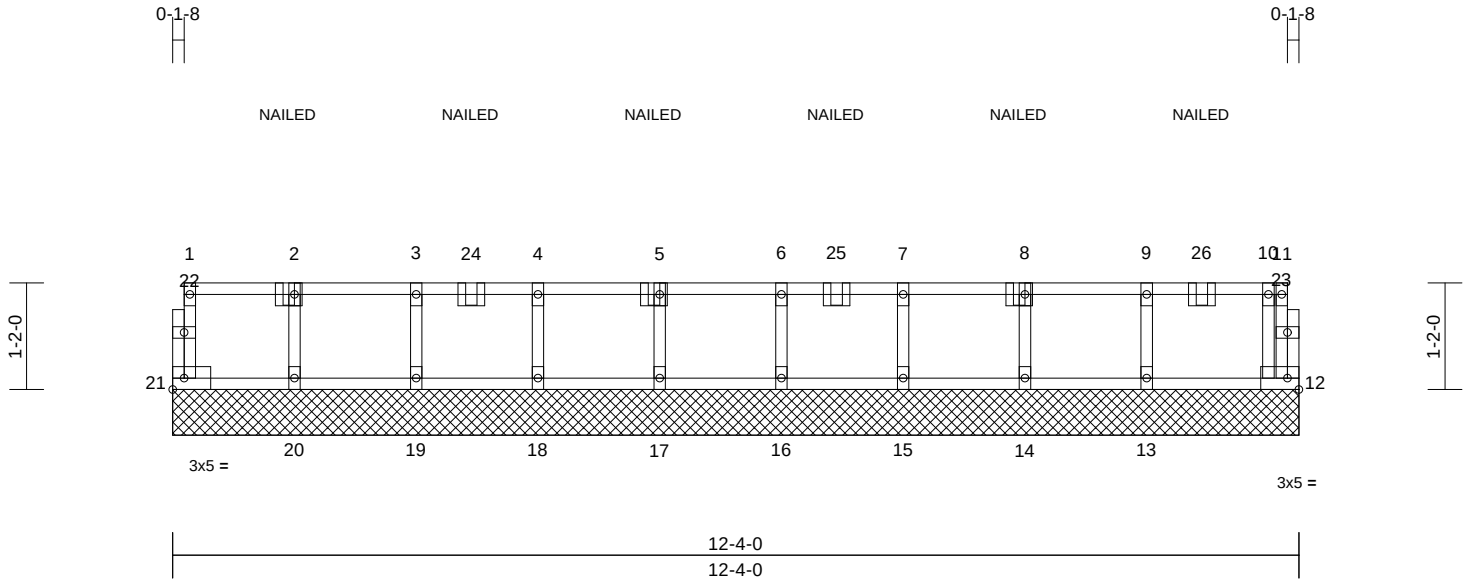

Scale = 1:25.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	0.90	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Plate Metal DOL	0.90	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Lumber DOL	0.90	WB	0.04	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	5.0	Rep Stress Incr	YES	Matrix-MR								
		Code	IRC2015/TPI2014								Weight: 54 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) 12=12-4-0, 13=12-4-0, 14=12-4-0, 15=12-4-0, 16=12-4-0, 17=12-4-0, 18=12-4-0, 19=12-4-0, 20=12-4-0, 21=12-4-0
Max Grav 12=100 (LC 7), 13=199 (LC 7), 14=180 (LC 7), 15=177 (LC 7), 16=181 (LC 7), 17=186 (LC 7), 18=175 (LC 7), 19=185 (LC 7), 20=174 (LC 7), 21=69 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 21-22=-59/0, 1-22=-57/0, 12-23=0/48, 11-23=0/48, 1-2=-20/0, 2-3=-20/0, 3-24=-20/0, 4-24=-20/0, 4-5=-20/0, 5-6=-20/0, 6-25=-20/0, 7-25=-20/0, 7-8=-20/0, 8-9=-20/0, 9-26=-20/0, 10-26=-20/0, 10-11=-4/0
BOT CHORD 20-21=0/20, 19-20=0/20, 18-19=0/20, 17-18=0/20, 16-17=0/20, 15-16=0/20, 14-15=0/20, 13-14=0/20, 12-13=0/20
WEBS 2-20=-168/0, 3-19=-170/0, 4-18=-162/0, 5-17=-172/0, 6-16=-168/0, 7-15=-163/0, 8-14=-169/0, 9-13=-180/0, 10-12=-141/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
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 + Snow (balanced): Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (lb/ft)
Vert: 12-21=-10, 1-11=-20
Concentrated Loads (lb)
Vert: 2=-70 (F), 5=-70 (F), 8=-70 (F), 24=-70 (F), 25=-70 (F), 26=-71 (F)

March 18,2021

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

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette	E15512265
21020141-B	F208	Floor	2	1	Job Reference (optional)	

Carter Components, Chesapeake, VA - 23323,

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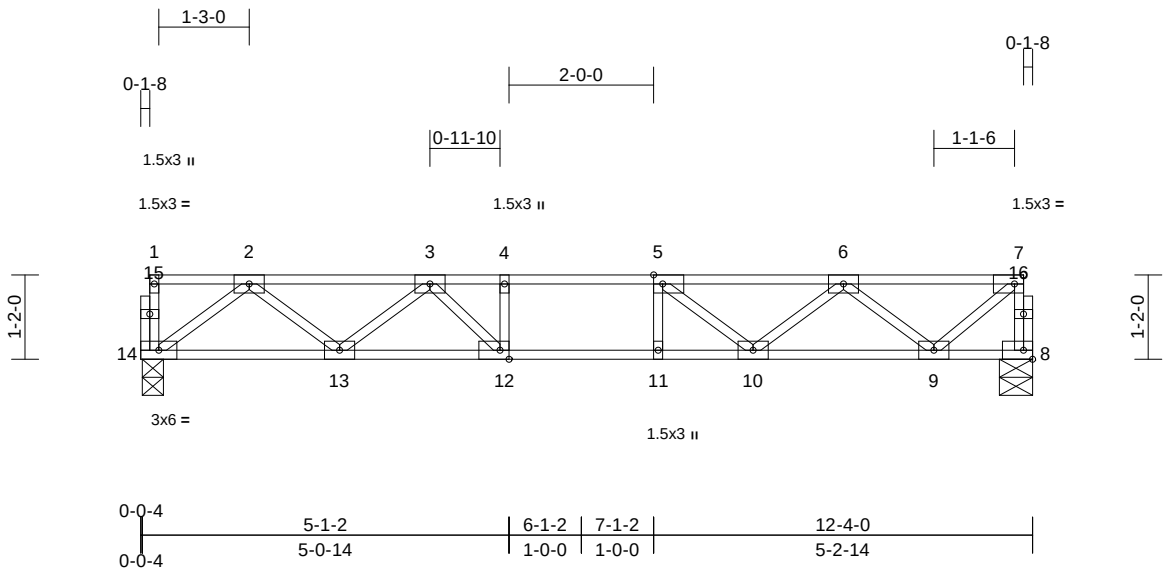

Scale = 1:31.9

Plate Offsets (X, Y): [5:0-1-8,Edge], [7:0-1-8,Edge], [12:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	-0.08	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.60	Vert(CT)	-0.10	10-11	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 62 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) 8=0-5-8, 14=0-3-8
Max Grav 8=527 (LC 1), 14=527 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 14-15=-28/0, 1-15=-28/0, 8-16=-523/0, 7-16=-522/0, 1-2=-2/0, 2-3=-1018/0, 3-4=-1514/0, 4-5=-1514/0, 5-6=-1294/0, 6-7=-536/0
BOT CHORD 13-14=0/648, 12-13=0/1368, 11-12=0/1514, 10-11=0/1514, 9-10=0/1053, 8-9=0/31
WEBS 4-12=-189/0, 5-11=-68/74, 2-14=-811/0, 2-13=0/482, 3-13=-455/0, 3-12=0/374, 5-10=-369/0, 6-10=0/329, 6-9=-673/0, 7-9=0/674

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) 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 18,2021

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

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette	E15512266
21020141-B	F209	Floor	1	1	Job Reference (optional)	

Carter Components, Chesapeake, VA - 23323,

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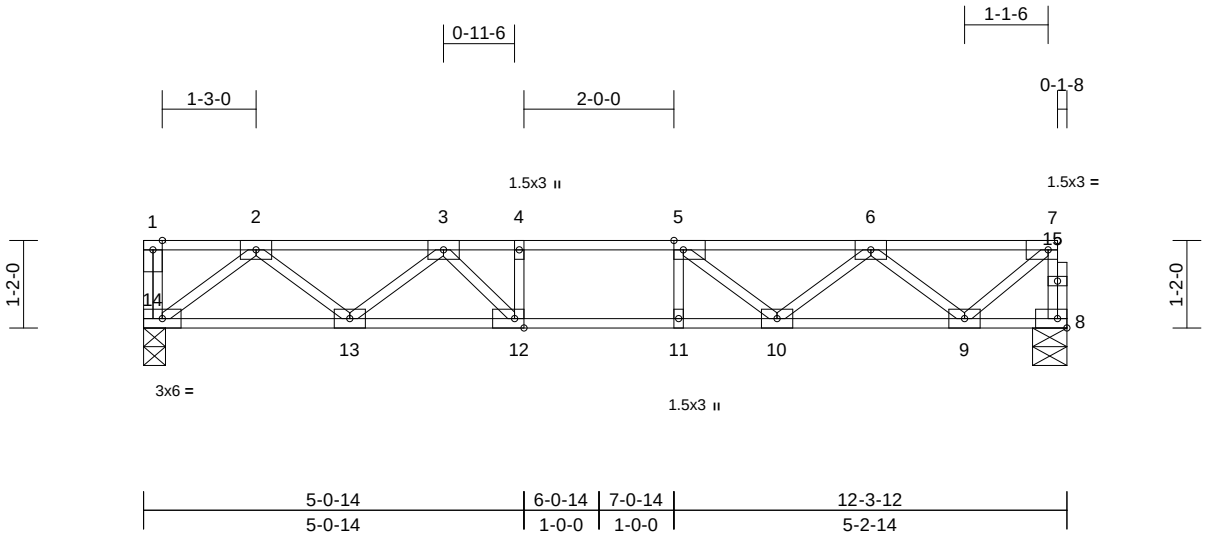

Scale = 1:30.7

Plate Offsets (X, Y): [5:0-1-8,Edge], [7:0-1-8,Edge], [12:0-1-8,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	0.47	Vert(LL)	-0.10	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.13	10-11	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.03	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 62 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) 8=0-5-8, 14=0-3-8
Max Grav 8=657 (LC 1), 14=663 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-14=-39/0, 8-15=-653/0, 7-15=-652/0, 1-2=0/0, 2-3=-1270/0, 3-4=-1886/0, 4-5=-1886/0, 5-6=-1613/0, 6-7=-669/0
BOT CHORD 13-14=0/809, 12-13=0/1706, 11-12=0/1886, 10-11=0/1886, 9-10=0/1314, 8-9=0/39
WEBS 4-12=-239/0, 5-11=-86/91, 2-14=-1015/0, 2-13=0/600, 3-13=-567/0, 3-12=0/467, 5-10=-458/0, 6-10=0/409, 6-9=-840/0, 7-9=0/840

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) 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.
4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

March 18,2021

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

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette
21020141-B	F210	Floor	1	1	E15512267 Job Reference (optional)

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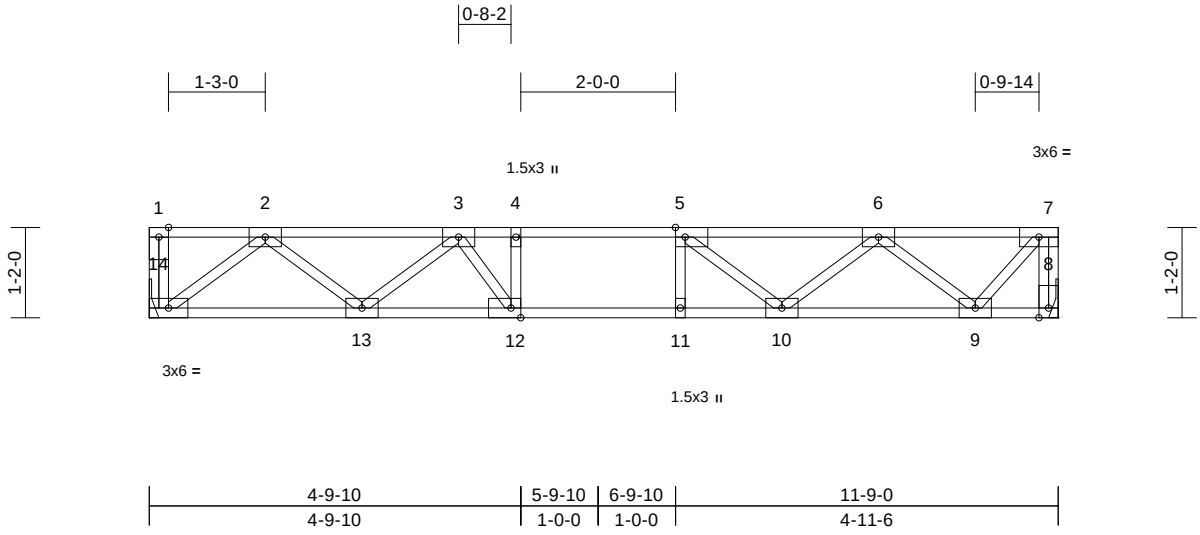

Scale = 1:29.8

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

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.35	Vert(LL)	-0.07	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.09	10-11	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 60 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8= Mechanical, 14= Mechanical
Max Grav 8=506 (LC 1), 14=506 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-31/0, 7-8=-504/0, 1-2=0/0, 2-3=-954/0, 3-4=-1371/0, 4-5=-1371/0, 5-6=-1147/0, 6-7=-397/0
BOT CHORD 13-14=0/614, 12-13=0/1277, 11-12=0/1371, 10-11=0/1371, 9-10=0/904, 8-9=0/0
WEBS 4-12=-208/0, 5-11=-62/69, 2-14=-771/0, 2-13=0/443, 3-13=-419/0, 3-12=-16/346, 5-10=-356/0, 6-10=0/321, 6-9=-659/0, 7-9=0/591

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
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.

LOAD CASE(S) Standard

March 18,2021

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

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette	E15512268
21020141-B	F211	Floor	1	1	Job Reference (optional)	

Carter Components, Chesapeake, VA - 23323,

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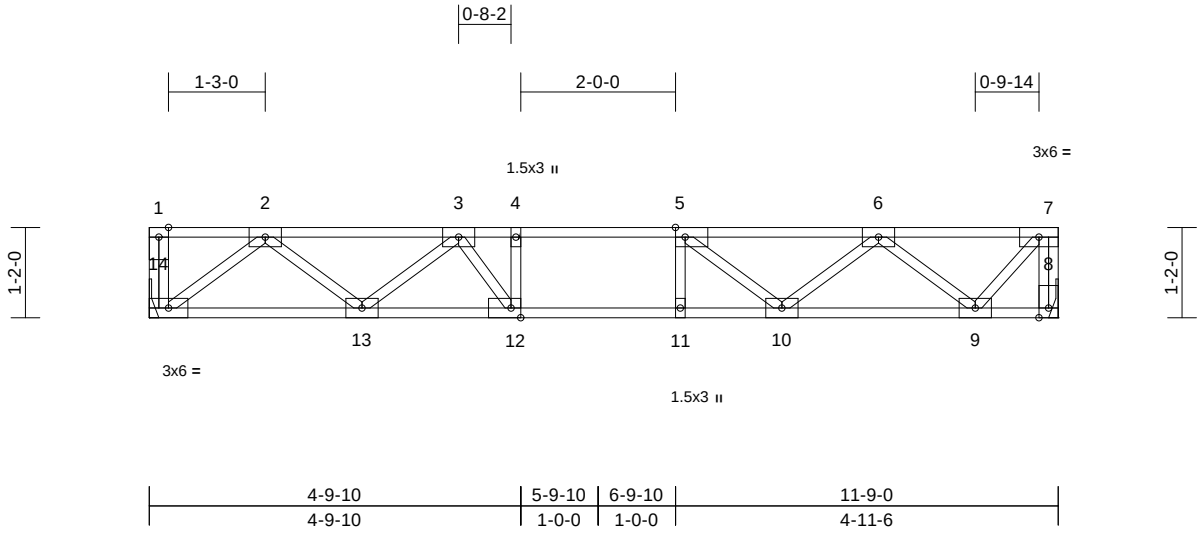

Scale = 1:29.8

Plate Offsets (X, Y): [5:0-1-8,Edge], [12:0-1-8,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	0.44	Vert(LL)	-0.09	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.69	Vert(CT)	-0.11	10-11	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 60 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8= Mechanical, 14= Mechanical
Max Grav 8=633 (LC 1), 14=633 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-39/0, 7-8=-630/0, 1-2=0/0, 2-3=-1193/0, 3-4=-1714/0, 4-5=-1714/0, 5-6=-1434/0, 6-7=-497/0
BOT CHORD 13-14=0/768, 12-13=0/1596, 11-12=0/1714, 10-11=0/1714, 9-10=0/1129, 8-9=0/0
WEBS 4-12=-260/0, 5-11=-78/86, 2-14=-964/0, 2-13=0/553, 3-13=-524/0, 3-12=-20/433, 5-10=-444/0, 6-10=0/401, 6-9=-823/0, 7-9=0/738

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
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.

LOAD CASE(S) Standard

March 18,2021

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

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette	E15512269
21020141-B	F212	Floor	1	1	Job Reference (optional)	

Carter Components, Chesapeake, VA - 23323,

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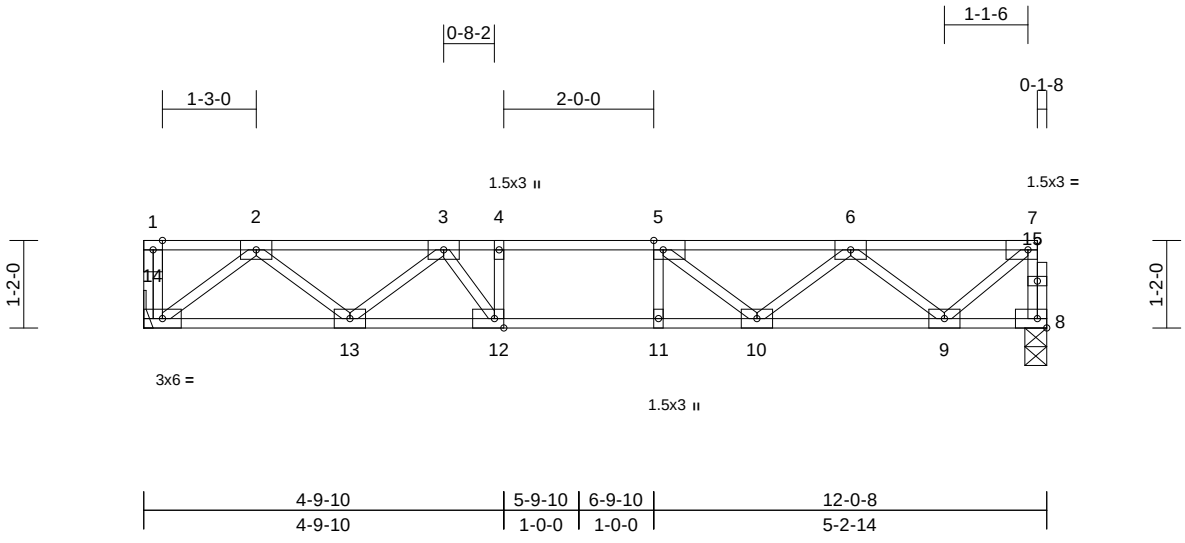

Scale = 1:30.7

Plate Offsets (X, Y): [5:0-1-8,Edge], [7:0-1-8,Edge], [12:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	-0.08	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.60	Vert(CT)	-0.10	10-11	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 61 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) 8=0-3-8, 14= Mechanical
Max Grav 8=514 (LC 1), 14=519 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-31/0, 8-15=-510/0, 7-15=-509/0, 1-2=0/0, 2-3=-985/0, 3-4=-1441/0, 4-5=-1441/0, 5-6=-1247/0, 6-7=-521/0
BOT CHORD 13-14=0/631, 12-13=0/1326, 11-12=0/1441, 10-11=0/1441, 9-10=0/1024, 8-9=0/31
WEBS 4-12=-225/0, 5-11=-72/62, 2-14=-792/0, 2-13=0/461, 3-13=-444/0, 3-12=0/377, 5-10=-336/0, 6-10=0/308, 6-9=-655/0, 7-9=0/655

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
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 18,2021

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

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette
21020141-B	F213	Floor Girder	1	1	E15512270 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Thu Mar 18 08:40:32 Page: 1
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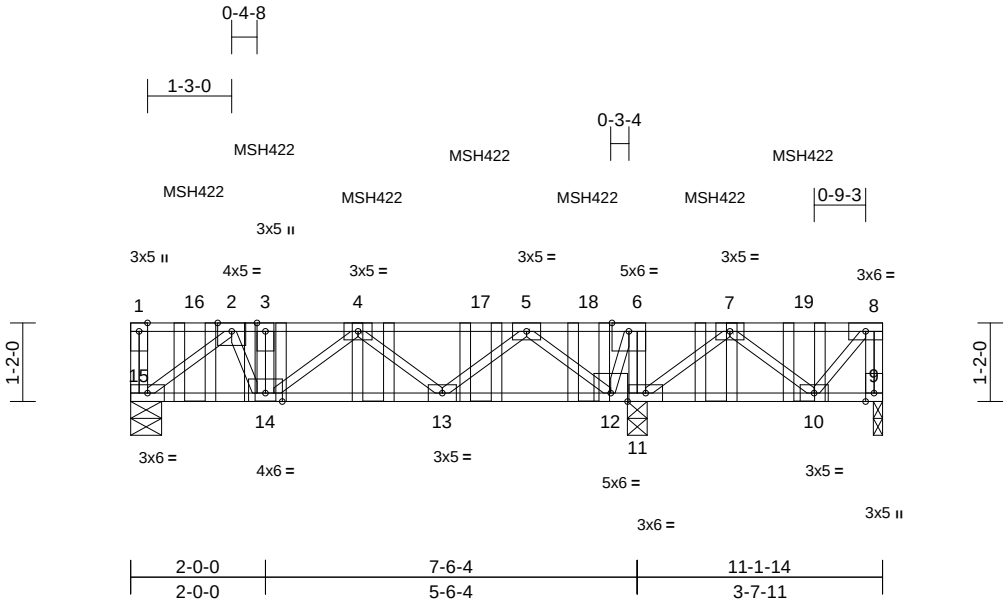

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	-0.03	13-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.52	Vert(CT)	-0.04	13-14	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.59	Horz(CT)	0.01	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 65 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS (size) 9=0-1-10, 11=0-3-8, 15=0-5-8
Max Grav 9=364 (LC 4), 11=2438 (LC 1), 15=1059 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-15=-152/0, 8-9=-356/0, 1-16=0/0, 2-16=0/0, 2-3=-1345/0, 3-4=-1345/0, 4-17=-1117/0, 5-17=-1117/0, 5-18=0/902, 6-18=0/902, 6-7=0/1341, 7-19=-43/7, 8-19=-43/7
BOT CHORD 14-15=0/1184, 13-14=0/1649, 12-13=0/552, 11-12=-1341/0, 10-11=-22/97, 9-10=0/0
WEBS 3-14=-86/0, 6-11=-1332/0, 2-15=-1485/0, 2-14=0/373, 4-14=-380/0, 4-13=-696/0, 5-13=0/740, 5-12=-1883/0, 6-12=0/1246, 7-11=-1701/0, 7-10=-71/20, 8-10=-11/66

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 9.
4) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15. This connection is for uplift only and does not consider lateral forces.
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.
7) Use USP MSH422 (With 10d nails into Girder & 6-10d nails into Truss) or equivalent spaced at 1-10-11 oc max. starting at 0-11-7 from the left end to 9-11-15 to connect truss(es) to back face of top chord.
8) Fill all nail holes where hanger is in contact with lumber.
9) 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: 9-15=-10, 1-8=-100
Concentrated Loads (lb)
Vert: 3=-263 (B), 4=-349 (B), 7=-426 (B), 16=-349 (B), 17=-349 (B), 18=-349 (B), 19=-533 (B)

March 18,2021

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

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette	E15512271
21020141-B	FG201	Floor Girder	1	4	Job Reference (optional)	

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Thu Mar 18 08:40:32 Page: 1

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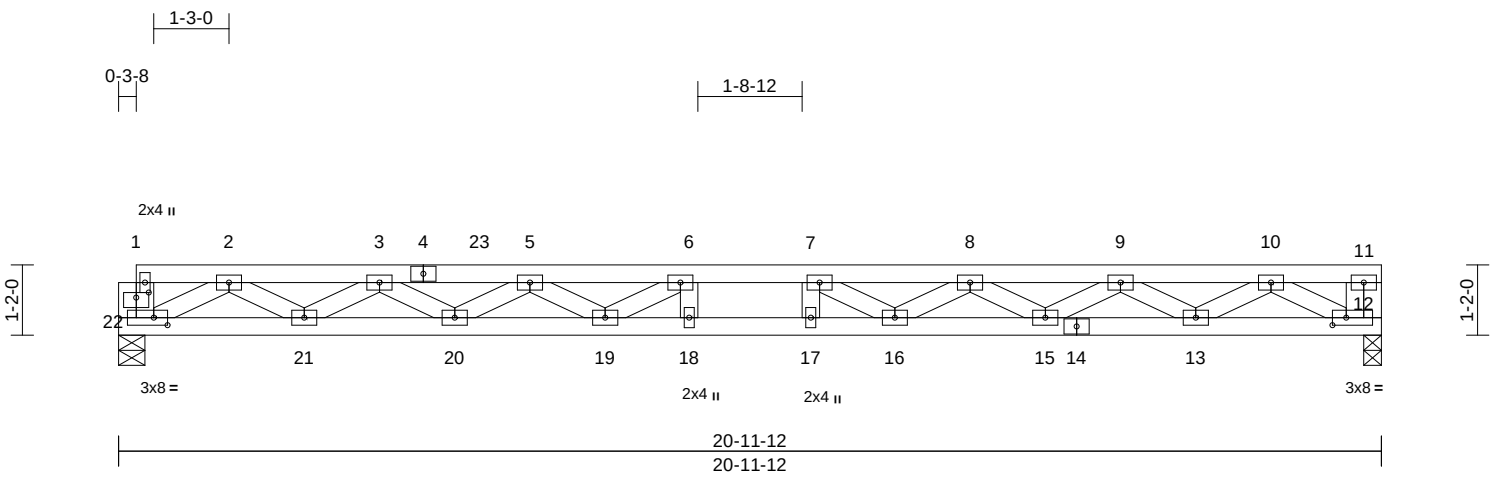


Scale = 1:38.3

Plate Offsets (X, Y): [1:0-2-8,0-1-0], [12:0-2-12,0-1-8], [22:0-2-12,0-1-8]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.72	Vert(LL)	-0.34	18-19	>720	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.60	Vert(CT)	-0.52	18-19	>471	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.58	Horz(CT)	0.06	12	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 383 lb	FT = 11%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING

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

REACTIONS (size) 12=0-3-8, 22=0-5-4
Max Grav 12=1596 (LC 1), 22=5193 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-22=-769/0, 11-12=-126/0, 1-2=-440/0, 2-3=-11317/0, 3-4=-15116/0, 4-23=-15116/0, 5-23=-15116/0, 5-6=-14412/0, 6-7=-12881/0, 7-8=-10713/0, 8-9=-7927/0, 9-10=-4467/0, 10-11=-141/0

BOT CHORD 21-22=0/7910, 20-21=0/14949, 19-20=0/15286, 18-19=0/12881, 17-18=0/12881, 16-17=0/12881, 15-16=0/9366, 14-15=0/6374, 13-14=0/6374, 12-13=0/2606

WEBS 10-12=-2834/0, 2-22=-8590/0, 10-13=0/2272, 2-21=0/4158, 9-13=-2328/0, 3-21=-4434/0, 9-15=0/1895, 3-20=-14/204, 8-15=-1757/0, 5-20=-209/12, 8-16=0/1767, 5-19=-1311/0, 7-16=-2832/0, 6-19=0/2234, 6-18=-904/0, 7-17=0/988

NOTES

1) 4-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
Attach TC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced floor live loads have been considered for this design.
4) All plates are 3x5 MT20 unless otherwise indicated.
5) The Fabrication Tolerance at joint 14 = 11%, joint 4 = 11%
6) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
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.
8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

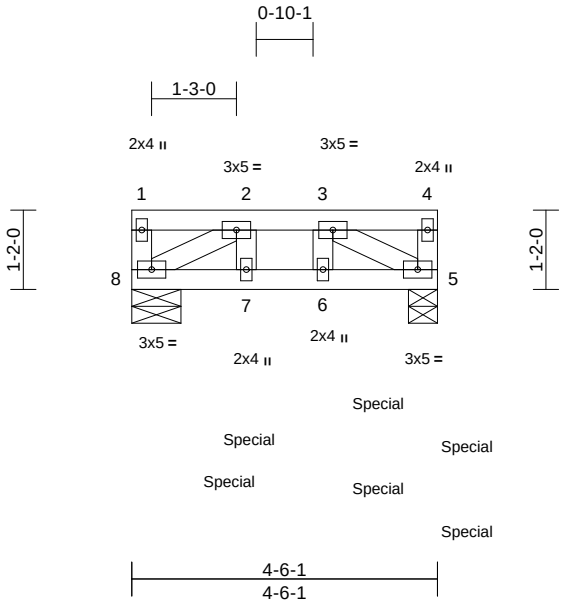
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 12-22=-8, 1-23=-955, 11-23=-80

March 18,2021

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

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette
21020141-B	FG202	Floor Girder	1	2	E15512272 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Thu Mar 18 08:40:33 Page: 1
ID:1UqKSqtWNyexv_a_1MUMzbzaVI3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:34

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	0.20	Vert(LL)	-0.02	6-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.56	Vert(CT)	-0.02	6-7	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.01	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 42 lb	FT = 11%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=0-5-2, 8=0-8-11
Max Grav 5=2362 (LC 1), 8=1667 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-175/0, 4-5=-194/0, 1-2=-147/0, 2-3=-2578/0, 3-4=-158/0
BOT CHORD 7-8=0/2578, 6-7=0/2578, 5-6=0/2578
WEBS 3-5=-2784/0, 2-7=0/1347, 3-6=0/1404, 2-8=-2797/0

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced floor live loads have been considered for this design.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 892 lb down at 1-5-7, 498 lb down at 1-8-15, 623 lb down at 3-0-10, 892 lb down at 3-0-10, and 147 lb down at 4-4-5, and 515 lb down at 4-4-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

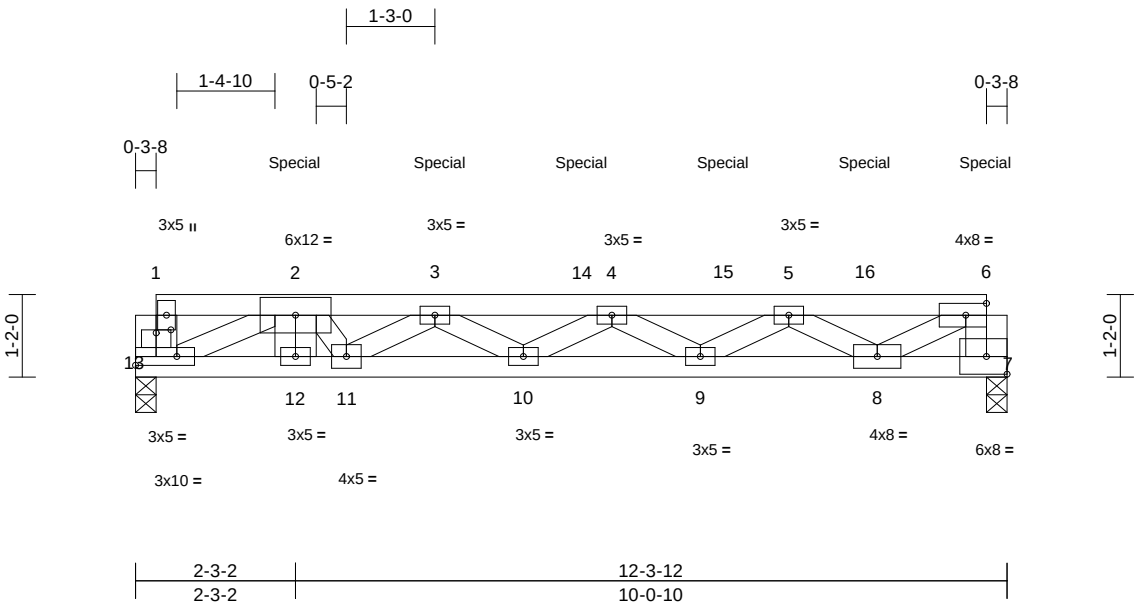
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 5-8=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 5=-661 (F=-515, B=-147), 7=-1390 (F=-498, B=-892), 6=-1515 (F=-623, B=-892)

March 18,2021

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

Job	Truss	Truss Type	Qty	Ply	2854 Norrington-2nd Floor-Marinette
21020141-B	FG203	Floor Girder	1	2	E15512273 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Feb 12 2021 Print: 8.430 S Feb 12 2021 MiTek Industries, Inc. Thu Mar 18 12:39:25 Page: 1
ID:e3McNJUx2pP3NRFYJoMYsezaVG_-cgsxcjdnosxZJcFYamZn28_wjzP0NW4EUOy9yGzZix2



Scale = 1:32.5

Plate Offsets (X, Y): [1:0-2-8,0-0-8], [13:Edge,0-1-8]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.08	9-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.49	Vert(CT)	-0.18	9-10	>777	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.48	Horz(CT)	0.03	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 117 lb	FT = 11%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 8-6:2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-7-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 7=2626/0-3-8, 13=2125/0-3-8

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 6-7=-2480/0, 1-2=-326/0, 2-3=-5253/0, 3-14=-7069/0, 4-14=-7069/0, 4-15=-6434/0, 5-15=-6434/0, 5-16=-3052/0, 6-16=-3052/0
BOT CHORD 12-13=0/4167, 11-12=0/4167, 10-11=0/6782, 9-10=0/7383, 8-9=0/5452, 7-8=0/295
WEBS 2-12=-396/0, 2-13=-4204/0, 6-8=0/3171, 5-8=-2930/0, 5-9=0/1199, 4-9=-1158/0, 4-10=-384/0, 3-10=0/349, 3-11=-1867/0, 2-11=0/1710

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 2 rows staggered at 0-3-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) All plates are 3x5 MT20 unless otherwise indicated.
4) One LUGT2 USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 13. This connection is for uplift only and does not consider lateral forces.
5) 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.
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.
8) Minimum of a double stud required directly beneath this truss to attach LUGT2 tiedown.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 810 lb down at 2-3-2, 580 lb down at 4-3-12, 580 lb down at 6-3-12, and 580 lb down at 8-3-12, and 580 lb down at 10-3-12 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 7-13=-8, 1-6=-80
Concentrated Loads (lb)

March 18,2021

Continued on page 2

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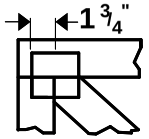
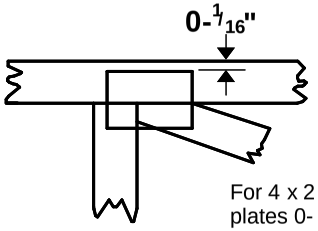
Vert: 2=-810 (B), 6=-590 (B), 3=-580 (B), 14=-580 (B), 15=-580 (B), 16=-580 (B)

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

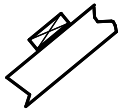
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

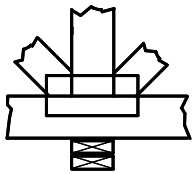
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

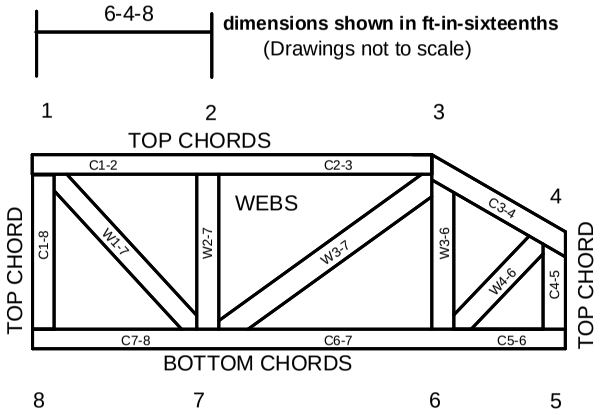


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

Lumber design values are in accordance with ANSI/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. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.