ENGINEERING BY TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: Master_FT
HERRING

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

Pages or sheets covered by this seal: I39310849 thru I39310870

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844

November 18,2019

Sevier, Scott

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	HERRING
Master_FT	F01	ROOF TRUSS	1	1	I39310849
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:06 2019 Page 1
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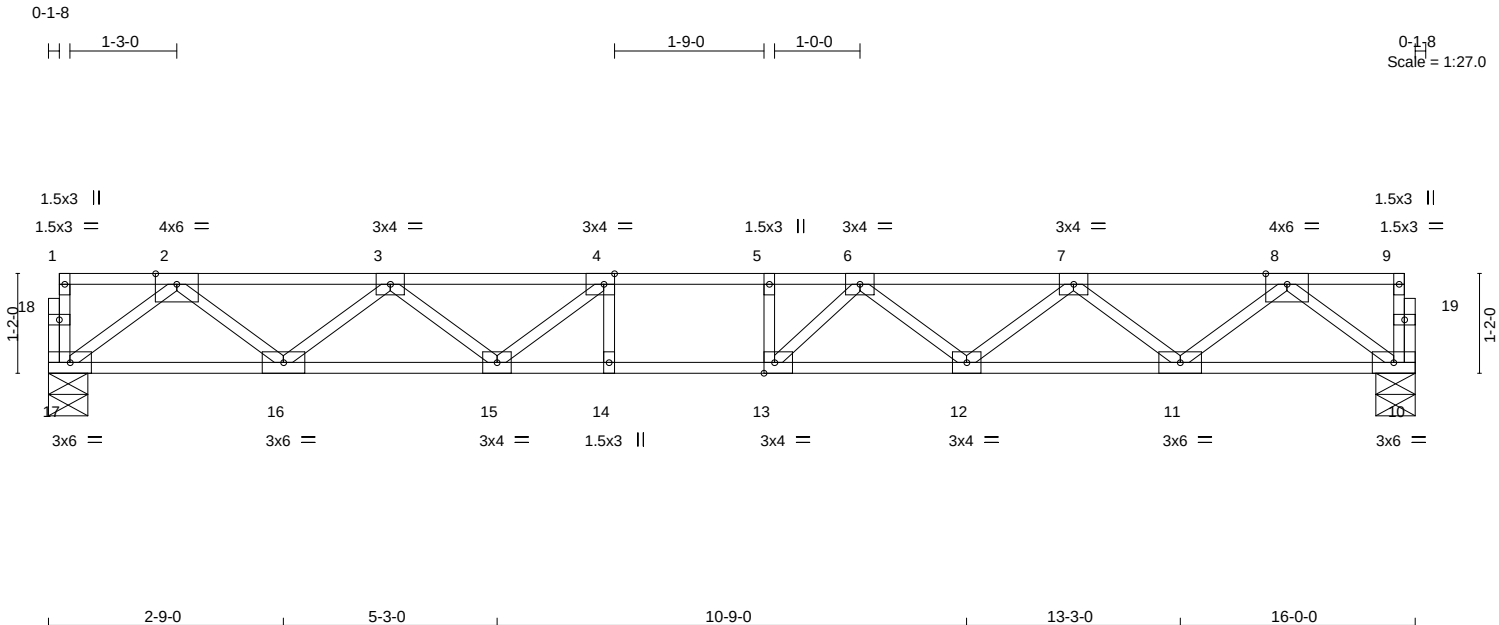

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [13:0-1-8,Edge]

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	0.61	Vert(LL)	-0.21	13	>920	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.80	Vert(CT)	-0.28	13	>665	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.05	10	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 80 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (lb/size) 17=860/0-5-8, 10=860/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1787/0, 3-4=-2836/0, 4-5=-3228/0, 5-6=-3228/0, 6-7=-2841/0, 7-8=-1786/0
BOT CHORD 16-17=0/1072, 15-16=0/2465, 14-15=0/3228, 13-14=0/3228, 12-13=0/3168, 11-12=0/2472, 10-11=0/1070
WEBS 8-10=-1339/0, 2-17=-1342/0, 8-11=0/933, 2-16=0/931, 7-11=-893/0, 3-16=-883/0, 7-12=0/480, 3-15=0/529, 6-12=-427/0, 4-15=-652/0, 6-13=-192/423

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All bearings are assumed to be User Defined crushing capacity of 565 psi.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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TRENCO
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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F01G	ROOF TRUSS	1	1	I39310851
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:08 2019 Page 1
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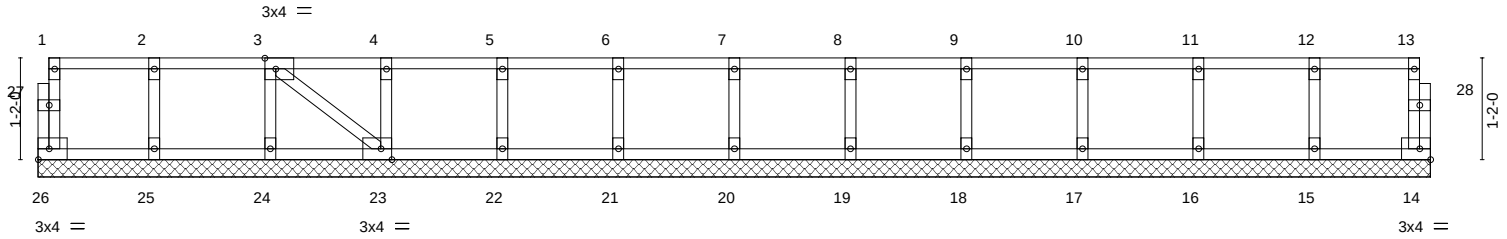

16-0-0
16-0-0

Plate Offsets (X,Y)-- [3:0-1-8,Edge], [23:0-1-8,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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 69 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. All bearings 16-0-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 26, 14, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15

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

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 User Defined crushing capacity of 565 psi.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F03G	ROOF TRUSS	1	1	I39310853
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:09 2019 Page 1
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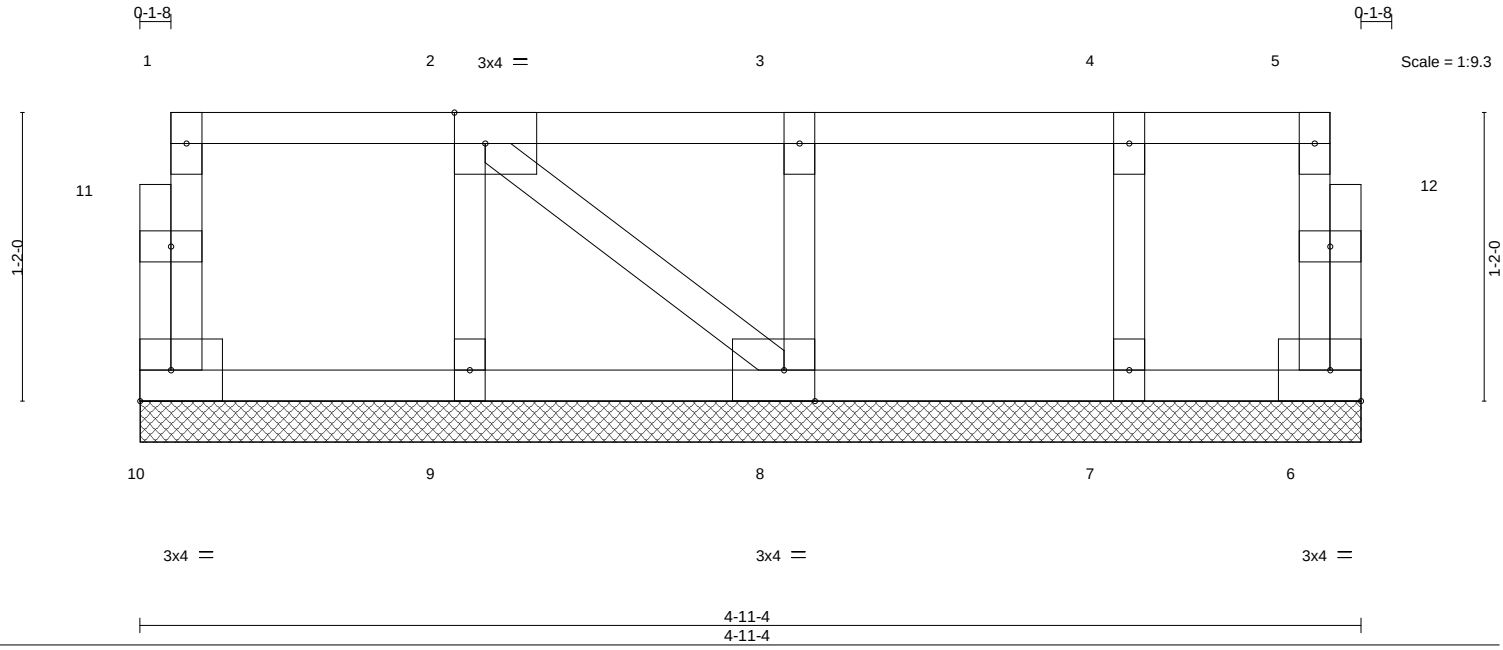

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [8:0-1-8,Edge]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 26 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 4-11-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 4-11-4.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 10, 6, 9, 8, 7

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

NOTES-
1) 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 User Defined crushing capacity of 565 psi.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F04	ROOF TRUSS	1	1	I39310854
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:10 2019 Page 1
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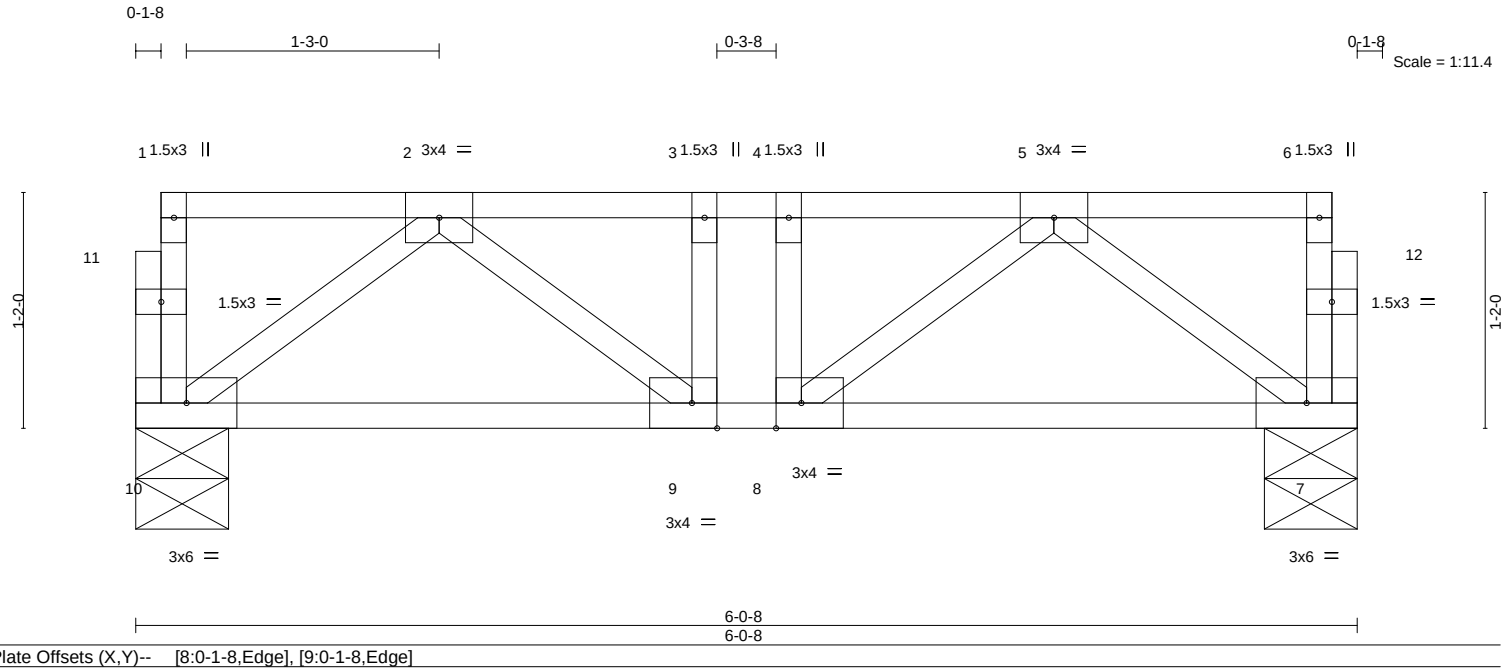

Plate Offsets (X,Y)-- [8:0-1-8,Edge], [9:0-1-8,Edge]

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	0.10	Vert(LL)	-0.01	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.15	Vert(CT)	-0.01	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 34 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. (lb/size) 10=312/0-5-8, 7=312/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-452/0, 3-4=-452/0, 4-5=-452/0
BOT CHORD 9-10=0/331, 8-9=0/452, 7-8=0/331
WEBS 2-10=-412/0, 5-7=-412/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All bearings are assumed to be User Defined crushing capacity of 565 psi.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F05G	ROOF TRUSS	1	1	I39310855
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:11 2019 Page 1
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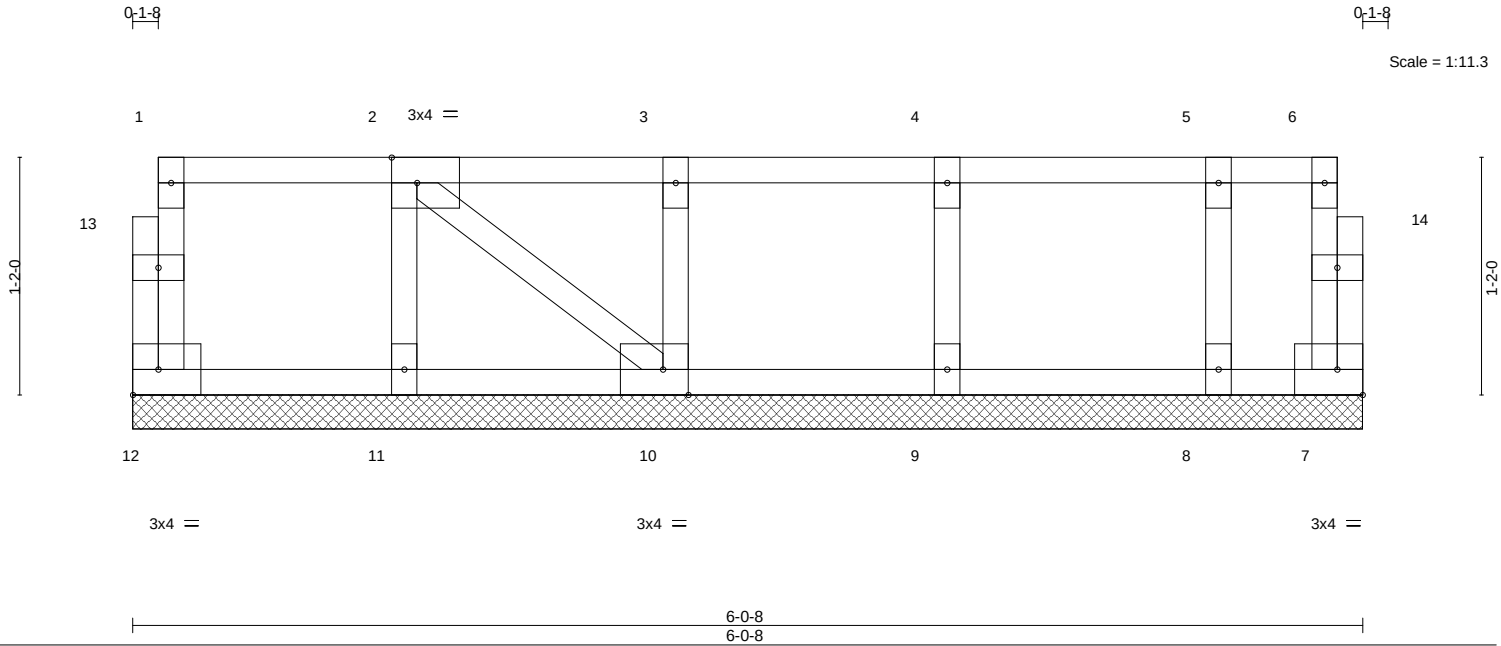

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [10:0-1-8,Edge]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 30 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. All bearings 6-0-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 12, 7, 11, 10, 9, 8

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

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 User Defined crushing capacity of 565 psi.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F07	ROOF TRUSS	1	1	I39310856
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:11 2019 Page 1
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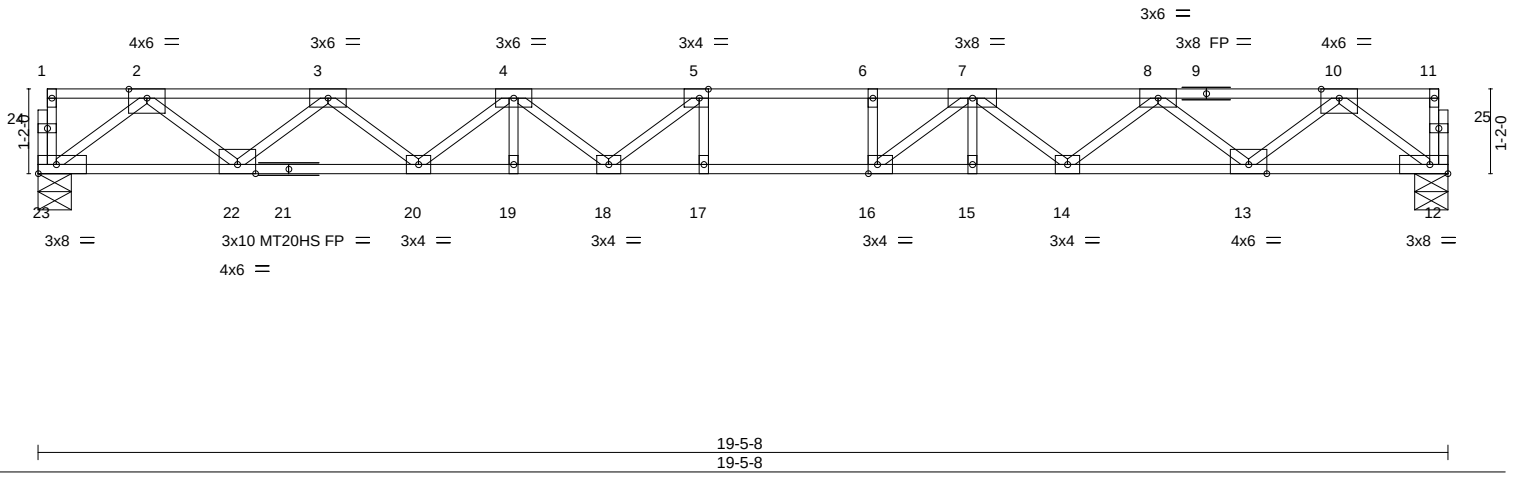

Plate Offsets (X,Y)-- [5:0-1-8,Edge], [16:0-1-8,Edge]

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	0.61	Vert(LL)	-0.39	17	>598	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.82	Vert(CT)	-0.53	17	>435	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.08	12	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 98 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP SS(flat)
BOT CHORD 2x4 SP SS(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. (lb/size) 23=1050/0-5-8, 12=1050/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2262/0, 3-4=-3774/0, 4-5=-4638/0, 5-6=-4800/0, 6-7=-4800/0, 7-8=-3763/0, 8-10=-2265/0
BOT CHORD 22-23=0/1321, 20-22=0/3170, 19-20=0/4378, 18-19=0/4378, 17-18=0/4800, 16-17=0/4800, 15-16=0/4334, 14-15=0/4334, 13-14=0/3180, 12-13=0/1318
WEBS 2-23=-1654/0, 2-22=0/1225, 3-22=-1182/0, 3-20=0/787, 4-20=-771/0, 4-18=0/471, 5-18=-580/170, 10-12=-1650/0, 10-13=0/1233, 8-13=-1191/0, 8-14=0/759, 7-14=-728/0, 7-16=-12/965, 6-16=-327/0

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 1.5x3 MT20 unless otherwise indicated.
4) All bearings are assumed to be User Defined crushing capacity of 565 psi.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F07G	ROOF TRUSS	1	1	I39310858
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:14 2019 Page 1
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Scale: 3/8"=1'

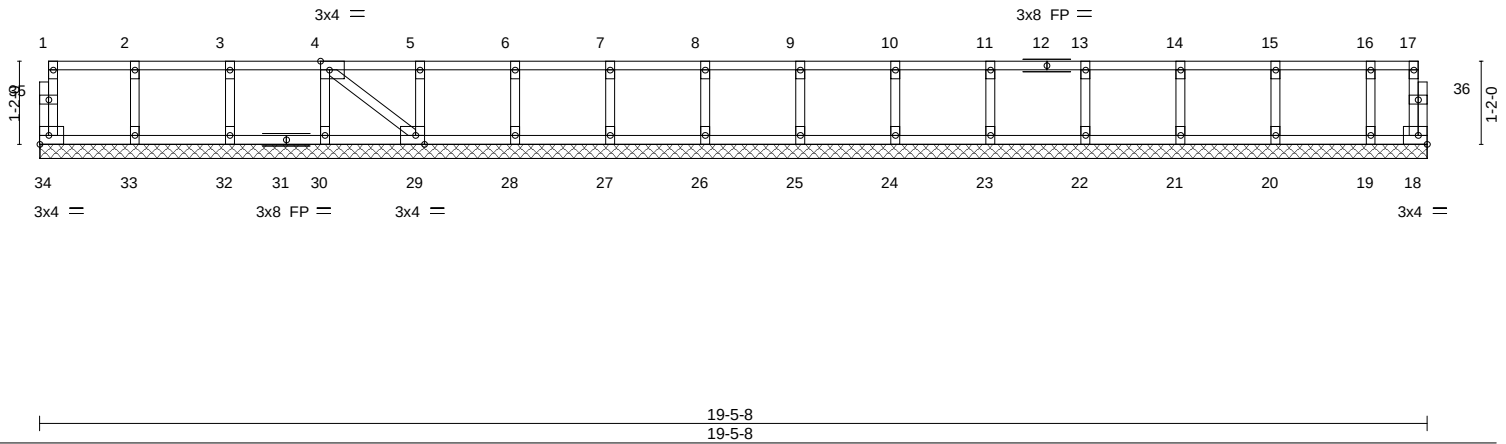

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [29:0-1-8,Edge]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	18	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 84 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. All bearings 19-5-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 34, 18, 33, 32, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19

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

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 User Defined crushing capacity of 565 psi.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F08G	ROOF TRUSS	1	1	I39310859
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:14 2019 Page 1
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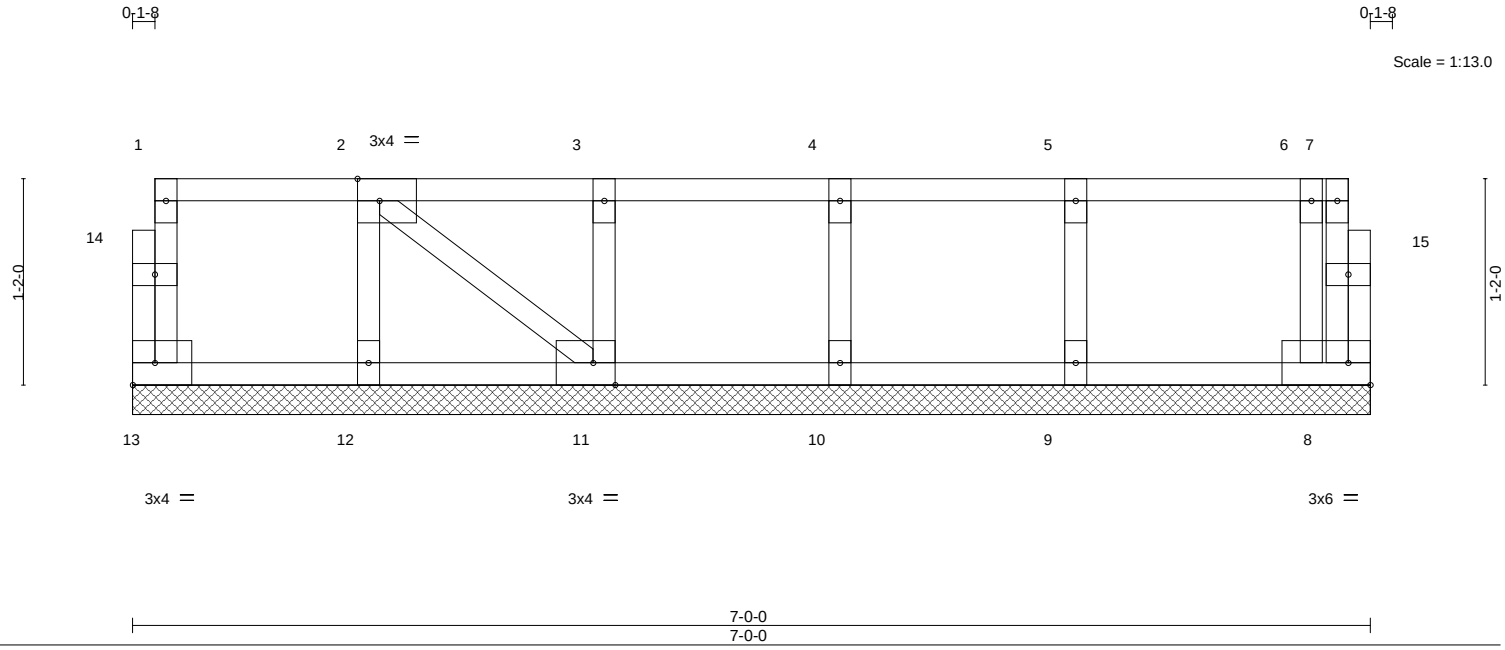

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [11:0-1-8,Edge]

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 34 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. All bearings 7-0-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 13, 8, 12, 11, 10, 9

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

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 User Defined crushing capacity of 565 psi.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

November 18,2019

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

Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F09	ROOF TRUSS	1	1	I39310860
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:15 2019 Page 1
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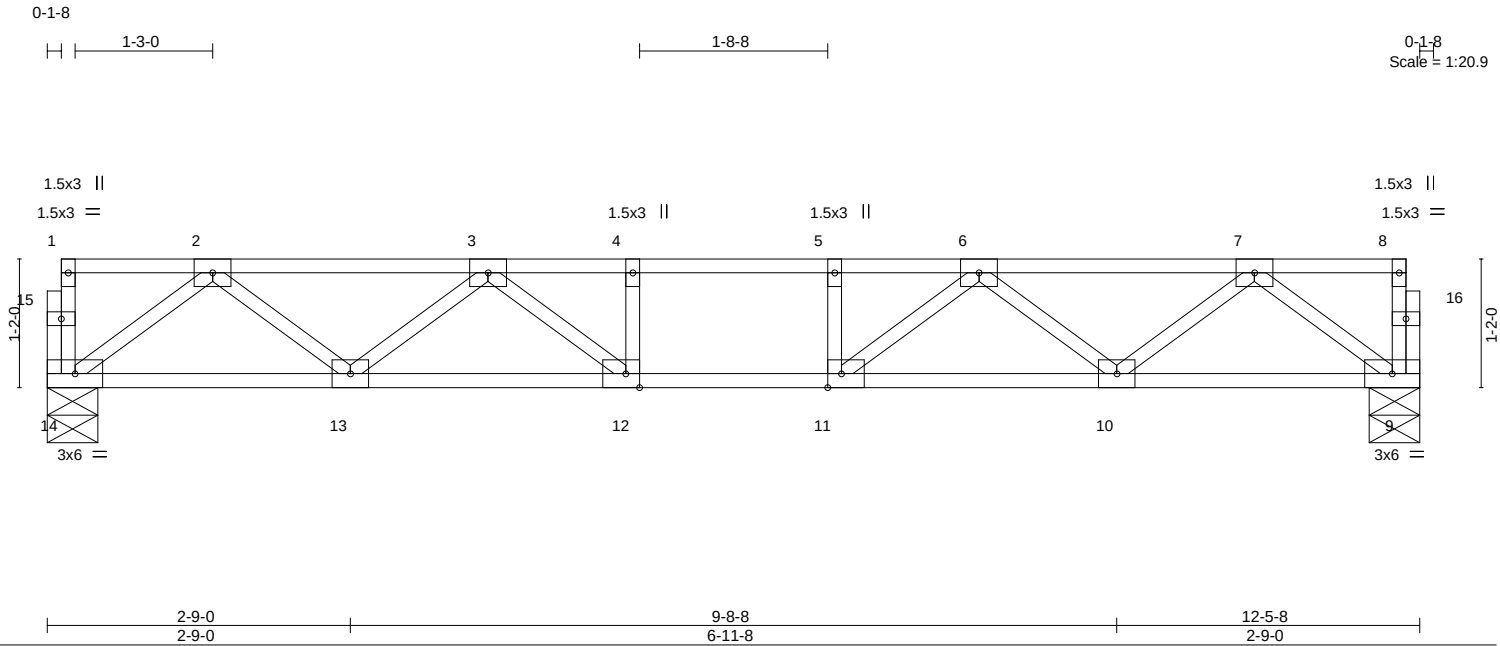

Plate Offsets (X,Y)-- [11:0-1-8,Edge], [12:0-1-8,Edge]

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	0.40	Vert(LL)	-0.09	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.58	Vert(CT)	-0.12	12-13	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 63 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(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. (lb/size) 14=665/0-5-8, 9=665/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1294/0, 3-4=-1934/0, 4-5=-1934/0, 5-6=-1934/0, 6-7=-1294/0
BOT CHORD 13-14=0/820, 12-13=0/1732, 11-12=0/1934, 10-11=0/1732, 9-10=0/820
WEBS 7-9=-1026/0, 2-14=-1026/0, 7-10=0/616, 2-13=0/616, 6-10=-571/0, 3-13=-571/0, 6-11=0/453, 3-12=0/453

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) All bearings are assumed to be User Defined crushing capacity of 565 psi.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

November 18,2019

ENGINEERING BY
TRENCO
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F09GR	ROOF TRUSS	1	1	I39310861
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:16 2019 Page 1
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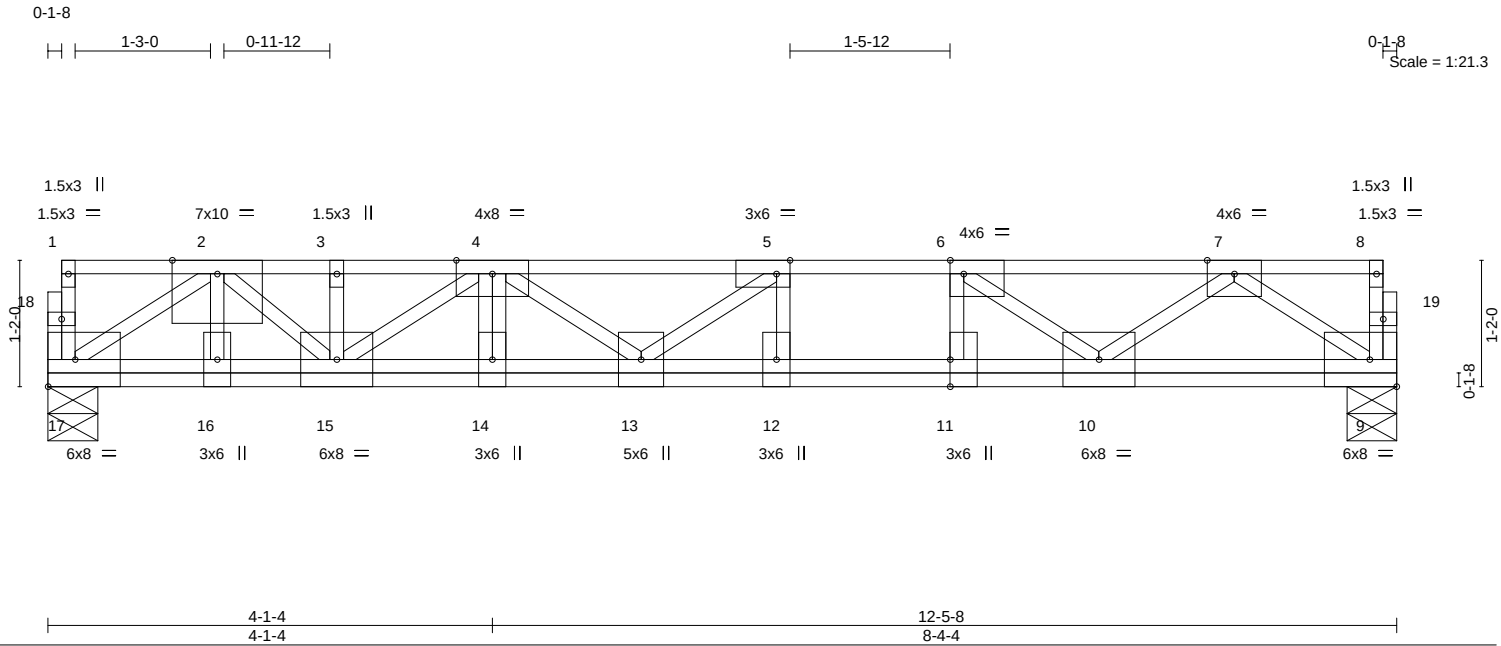

Plate Offsets (X,Y)-- [5:0-1-8,Edge], [6:0-1-8,Edge], [11:0-3-0,0-0-0]

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	0.92	Vert(LL)	-0.16	12-13	>894	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.22	12-13	>650	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 84 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-7-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 17=1794/0-5-8, 9=1018/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3539/0, 3-4=-3539/0, 4-5=-4419/0, 5-6=-3601/0, 6-7=-2198/0
BOT CHORD 16-17=0/2259, 15-16=0/2248, 14-15=0/4753, 13-14=0/4753, 12-13=0/3601, 11-12=0/3601, 10-11=0/3601, 9-10=0/1338
WEBS 2-17=-2646/0, 4-15=-1469/0, 3-15=-314/0, 7-9=-1592/0, 7-10=0/1097, 6-10=-1751/0, 4-13=-476/0, 5-13=0/1182, 5-12=-834/0, 6-11=0/853, 2-15=0/1726

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All bearings are assumed to be User Defined crushing capacity of 565 psi.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 700 lb down at 4-1-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 9-17=-10, 1-4=-300(F=-200), 4-8=-100
Concentrated Loads (lb)
Vert: 4=-700(F)

November 18,2019

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

Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F10GR	ROOF TRUSS	1	1	I39310862
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:17 2019 Page 1
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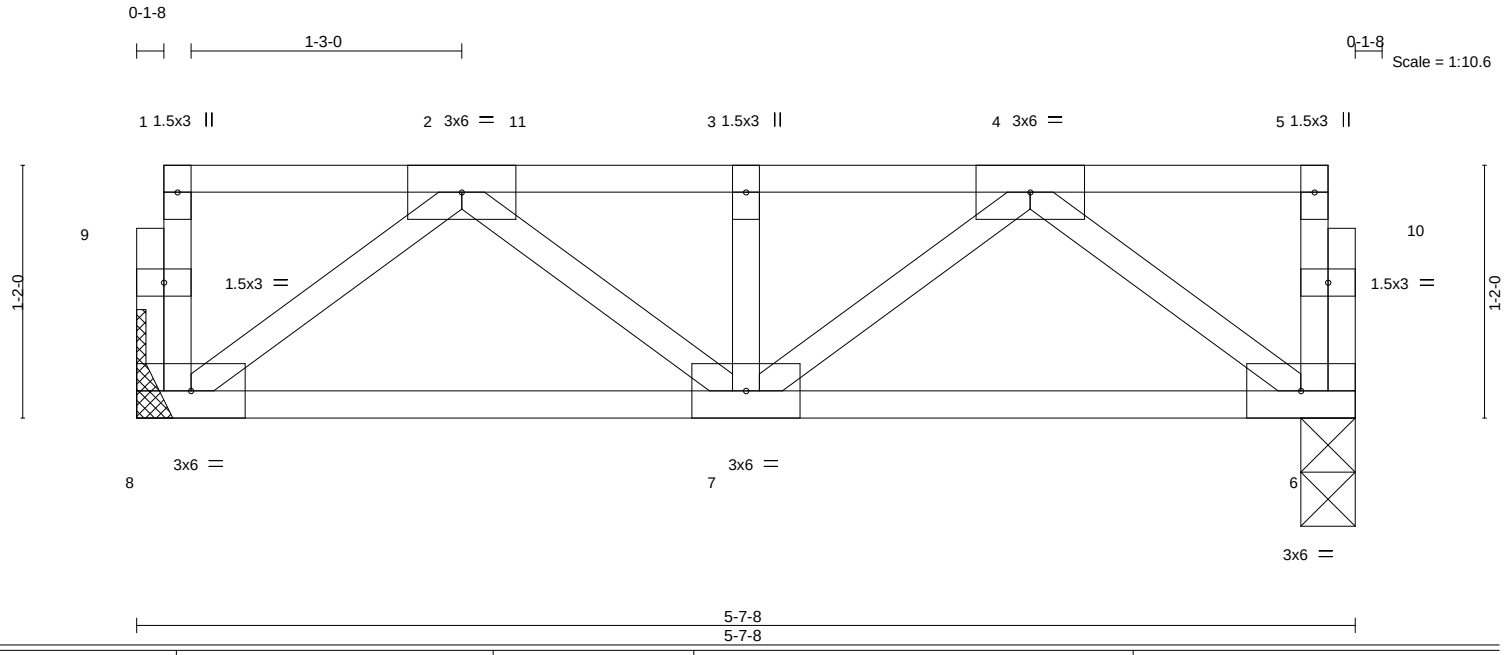

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.01	7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.31	Vert(CT)	-0.02	7	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.01	6	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-P							Weight: 32 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 5-7-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=689/Mechanical, 6=752/0-3-0

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1072/0, 3-4=-1072/0
BOT CHORD 7-8=0/865, 6-7=0/899
WEBS 4-6=-1124/0, 2-8=-1083/0, 3-7=-272/0, 2-7=0/265

NOTES-
1) All bearings are assumed to be User Defined crushing capacity of 565 psi.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 431 lb down at 1-10-12, and 431 lb down at 3-10-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-8=-10, 1-5=-100
Concentrated Loads (lb)
Vert: 4=-431(F) 11=-431(F)

November 18,2019

ENGINEERING BY
TRENCO
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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F11	ROOF TRUSS	1	1	I39310863
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:18 2019 Page 1
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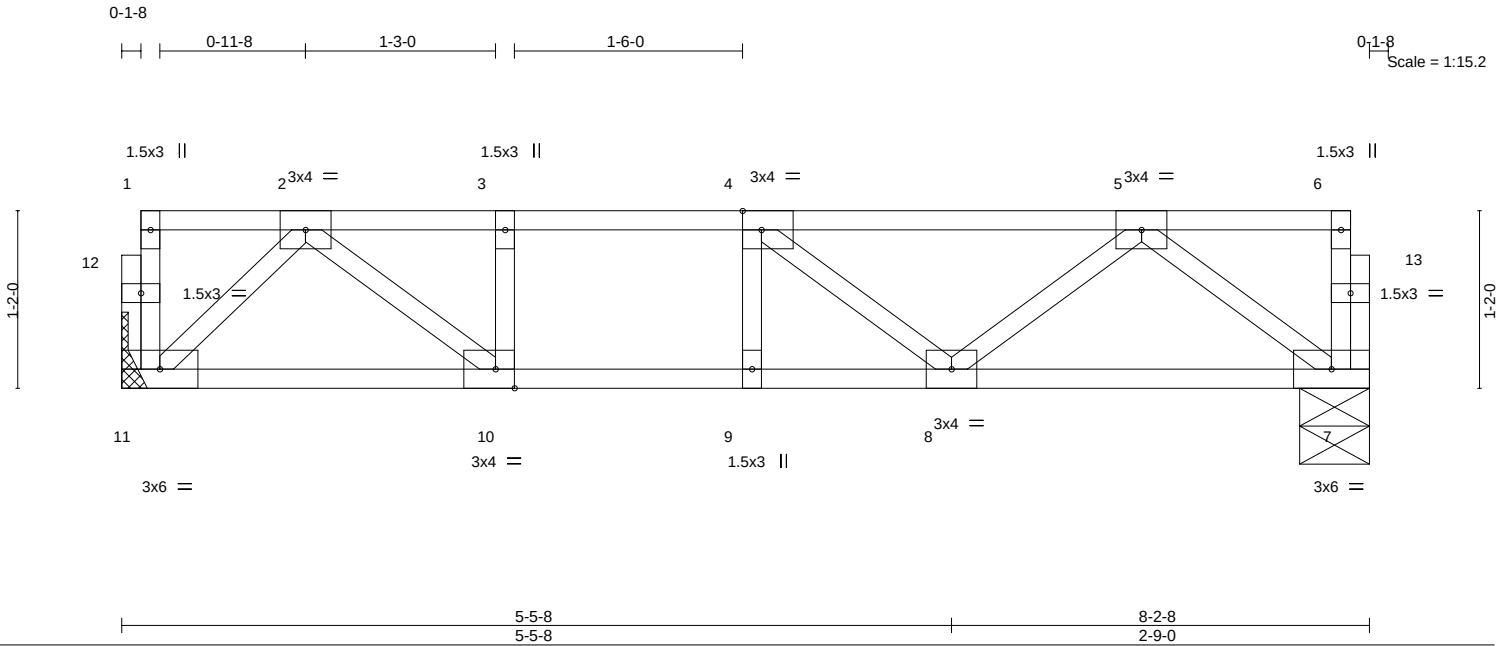

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [10:0-1-8,Edge]

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	0.40	Vert(LL)	-0.05	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.57	Vert(CT)	-0.07	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 43 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. (lb/size) 11=431/Mechanical, 7=431/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-795/0, 3-4=-795/0, 4-5=-702/0
BOT CHORD 10-11=0/403, 9-10=0/795, 8-9=0/795, 7-8=0/529
WEBS 5-7=-662/0, 2-11=-555/0, 2-10=0/502

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All bearings are assumed to be User Defined crushing capacity of 565 psi.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

November 18,2019

ENGINEERING BY
TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F12	ROOF TRUSS	1	1	I39310864
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:20 2019 Page 1
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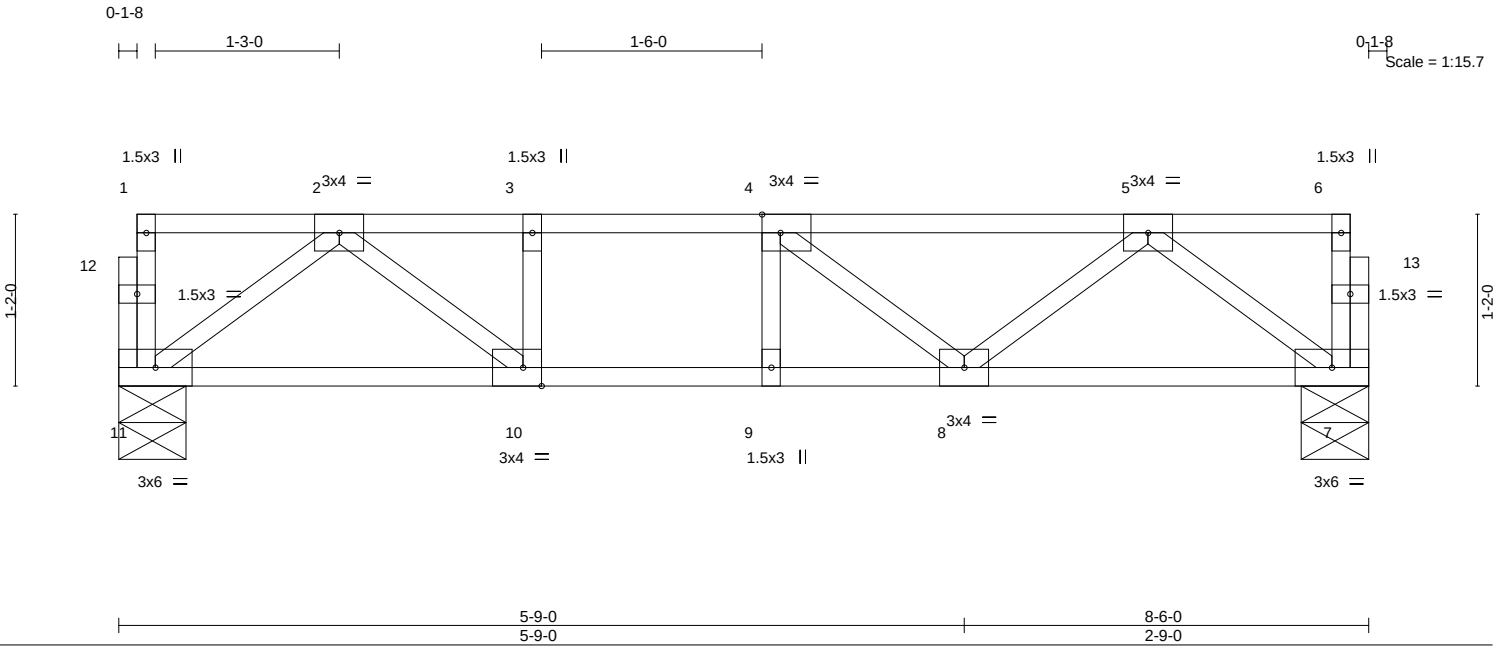

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [10:0-1-8,Edge]

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	0.37	Vert(LL)	-0.05	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.56	Vert(CT)	-0.07	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 44 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. (lb/size) 11=448/0-5-8, 7=448/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-867/0, 3-4=-867/0, 4-5=-743/0
BOT CHORD 10-11=0/513, 9-10=0/867, 8-9=0/867, 7-8=0/548
WEBS 5-7=-685/0, 2-11=-639/0, 5-8=0/254, 2-10=0/473

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All bearings are assumed to be User Defined crushing capacity of 565 psi.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

November 18,2019

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F13G	ROOF TRUSS	1	1	I39310865
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:21 2019 Page 1
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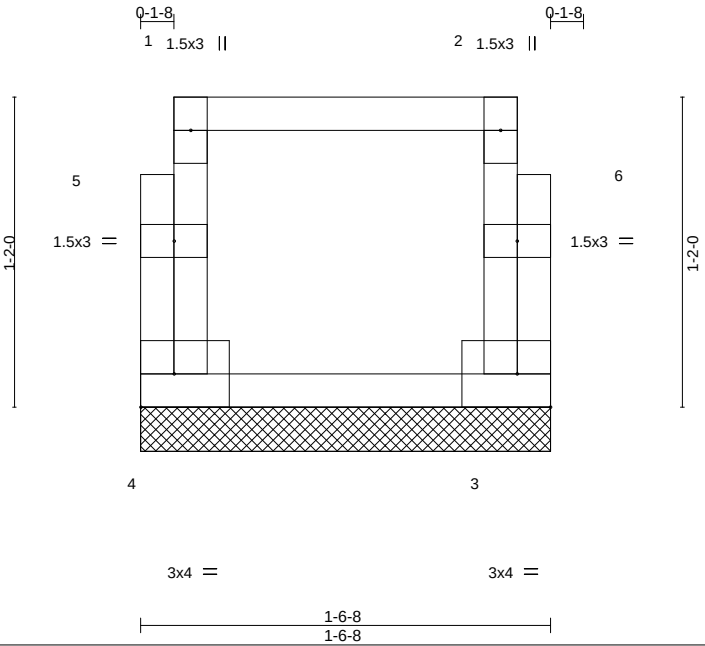

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 9 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 1-6-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 4=65/1-6-8, 3=65/1-6-8

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

NOTES-
1) Gable requires continuous bottom chord bearing.
2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
3) Gable studs spaced at 1-4-0 oc.
4) All bearings are assumed to be User Defined crushing capacity of 565 psi.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

November 18,2019

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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F14	ROOF TRUSS	1	1	I39310866
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:22 2019 Page 1
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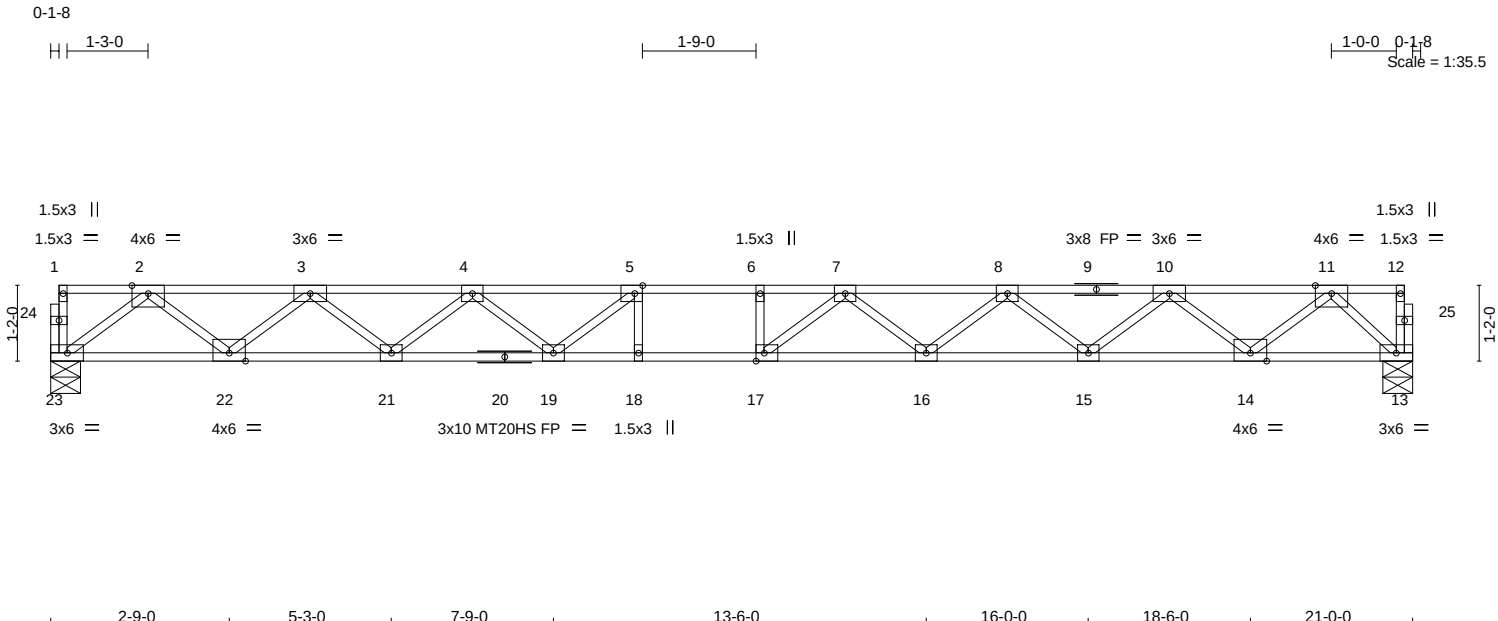

Plate Offsets (X,Y)-- [5:0-1-8,Edge], [17:0-1-8,Edge]

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	0.42	Vert(LL)	-0.39	17	>643	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.59	Vert(CT)	-0.53	17	>466	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.08	13	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 104 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP SS(flat)
BOT CHORD 2x4 SP SS(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. (lb/size) 23=907/0-5-8, 13=907/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1979/0, 3-4=-3348/0, 4-5=-4184/0, 5-6=-4498/0, 6-7=-4498/0, 7-8=-4127/0, 8-10=-3235/0, 10-11=-1813/0
BOT CHORD 22-23=0/1144, 21-22=0/2787, 19-21=0/3884, 18-19=0/4498, 17-18=0/4498, 16-17=0/4418, 15-16=0/3803, 14-15=0/2647, 13-14=0/954
WEBS 11-13=-1299/0, 2-23=-1433/0, 11-14=0/1119, 2-22=0/1086, 10-14=-1085/0, 3-22=-1052/0, 10-15=0/765, 3-21=0/730, 8-15=-739/0, 4-21=-697/0, 8-16=0/423, 4-19=0/499, 7-16=-403/0, 5-19=-625/7, 7-17=-233/474

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 3x4 MT20 unless otherwise indicated.
4) All bearings are assumed to be User Defined crushing capacity of 565 psi.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

November 18,2019

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A MiTek Affiliate
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F14G	ROOF TRUSS	1	1	I39310868
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:25 2019 Page 1
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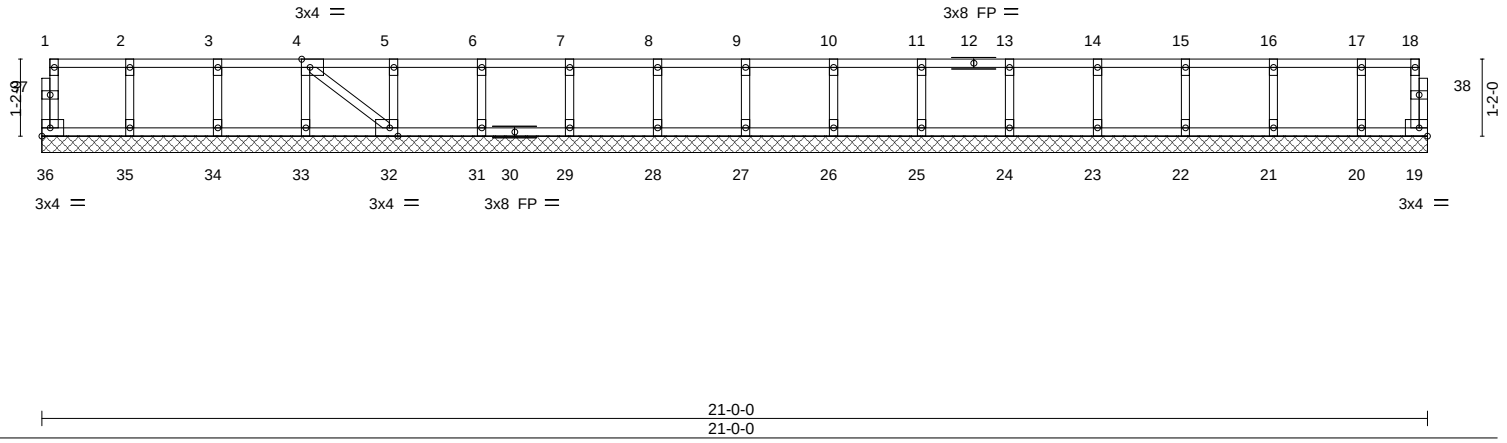

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [32:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	19	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 90 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. All bearings 21-0-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 36, 19, 35, 34, 33, 32, 31, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20

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

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 User Defined crushing capacity of 565 psi.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

November 18,2019

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FT	F16G	ROOF TRUSS	1	1	I39310870
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 18 08:29:28 2019 Page 1
ID:roHhUsgqWusUxq3sQOAq53yLGQf-xxBNhJUBoKBpn1Fuf2HVkvQ?FGiOb1VE5gKNHYyI?ar

0-1-8 0-1-8

Scale = 1:18.9

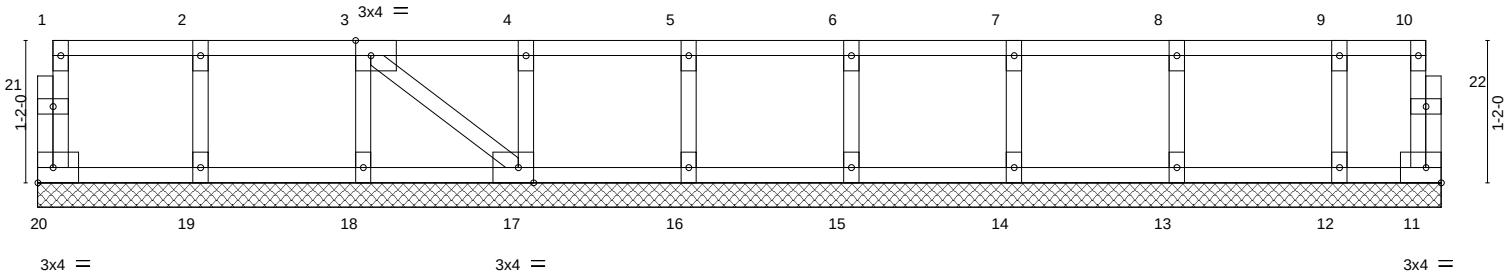

Plate Offsets (X,Y)-- [3:0-1-8,Edge], [17:0-1-8,Edge]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	11	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 52 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. All bearings 11-6-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 14, 13, 12

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

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 User Defined crushing capacity of 565 psi.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

November 18,2019

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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FTD	F01A	ROOF TRUSS	1	1	I39408071
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 25 09:30:33 2019 Page 1
ID:roHhUsgqWusUxq3sQOAq53yLGQf-mFO?BJfmTcFxsuCr_qnrntiCwCm6Tc0zPK9ArVyFh1a

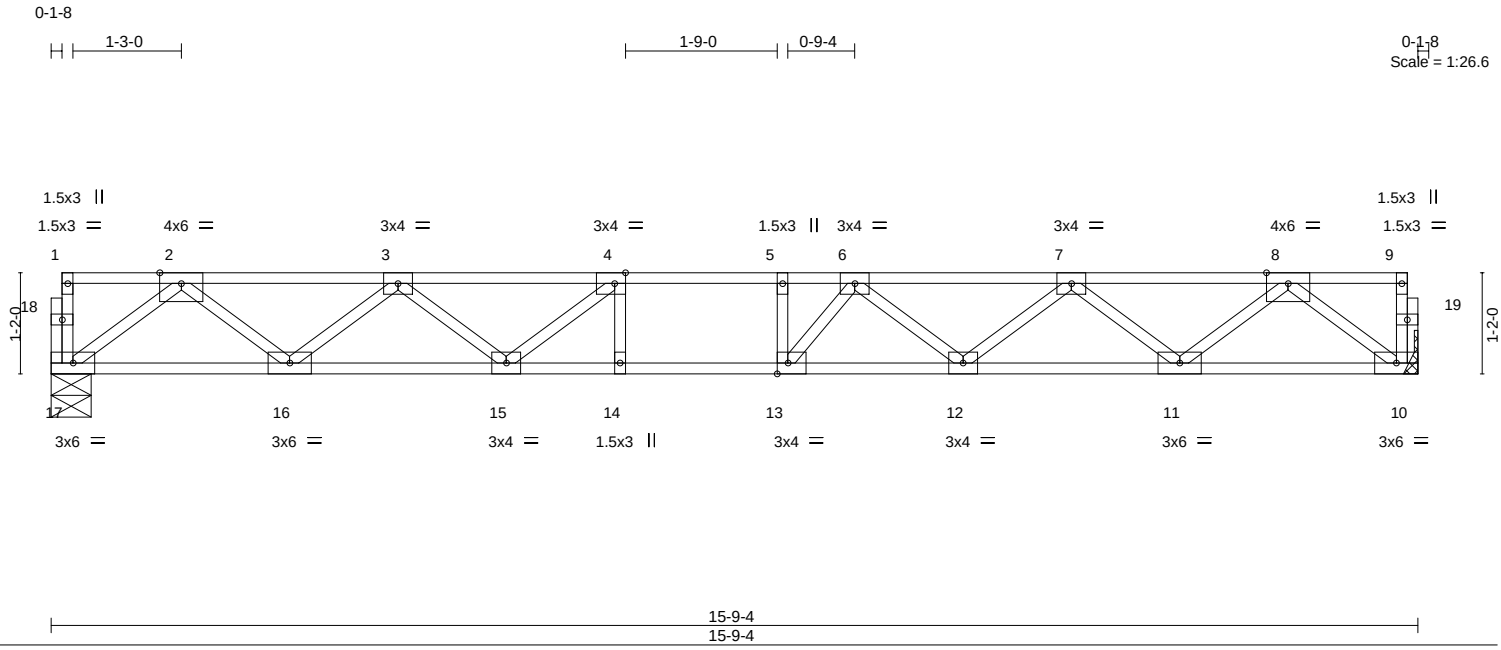

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [13:0-1-8,Edge]

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	0.59	Vert(LL)	-0.19	13	>981	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.76	Vert(CT)	-0.26	13	>710	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.05	10	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 79 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (lb/size) 17=847/0-5-8, 10=847/Mechanical

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1756/0, 3-4=-2774/0, 4-5=-3138/0, 5-6=-3138/0, 6-7=-2776/0, 7-8=-1755/0
BOT CHORD 16-17=0/1055, 15-16=0/2421, 14-15=0/3138, 13-14=0/3138, 12-13=0/3093, 11-12=0/2425, 10-11=0/1053
WEBS 8-10=-1319/0, 2-17=-1320/0, 8-11=0/914, 2-16=0/913, 7-11=-872/0, 3-16=-865/0, 7-12=0/458, 3-15=0/509, 6-12=-419/0, 4-15=-618/0, 6-13=-204/417

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 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

November 25,2019

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TRENCO
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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FTD	F02G	GABLE	1	1	I39408072
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 25 09:30:34 2019 Page 1
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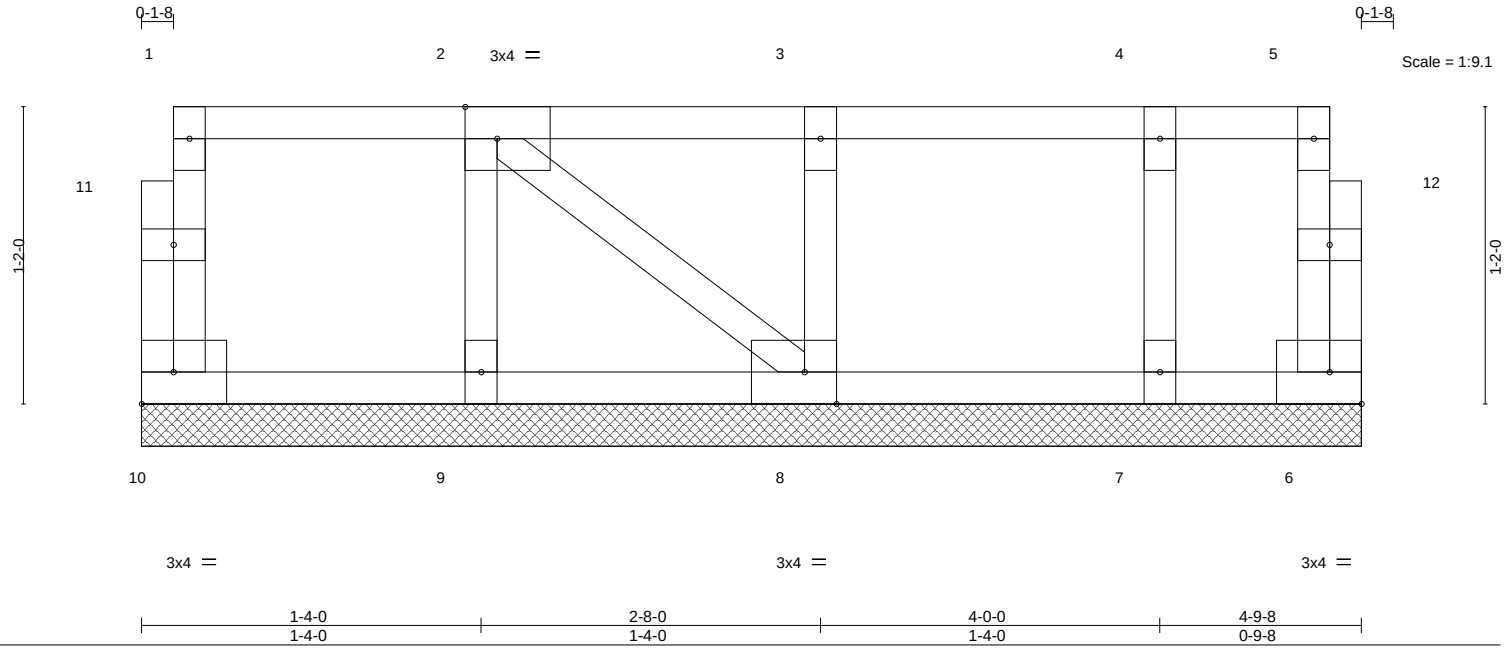

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [8:0-1-8,Edge]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-P							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 4-9-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 4-9-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 10, 6, 9, 8, 7

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

NOTES-
1) 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) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

November 25,2019

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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FTD	F07A	ROOF TRUSS	1	1	I39408073
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 25 09:30:35 2019 Page 1
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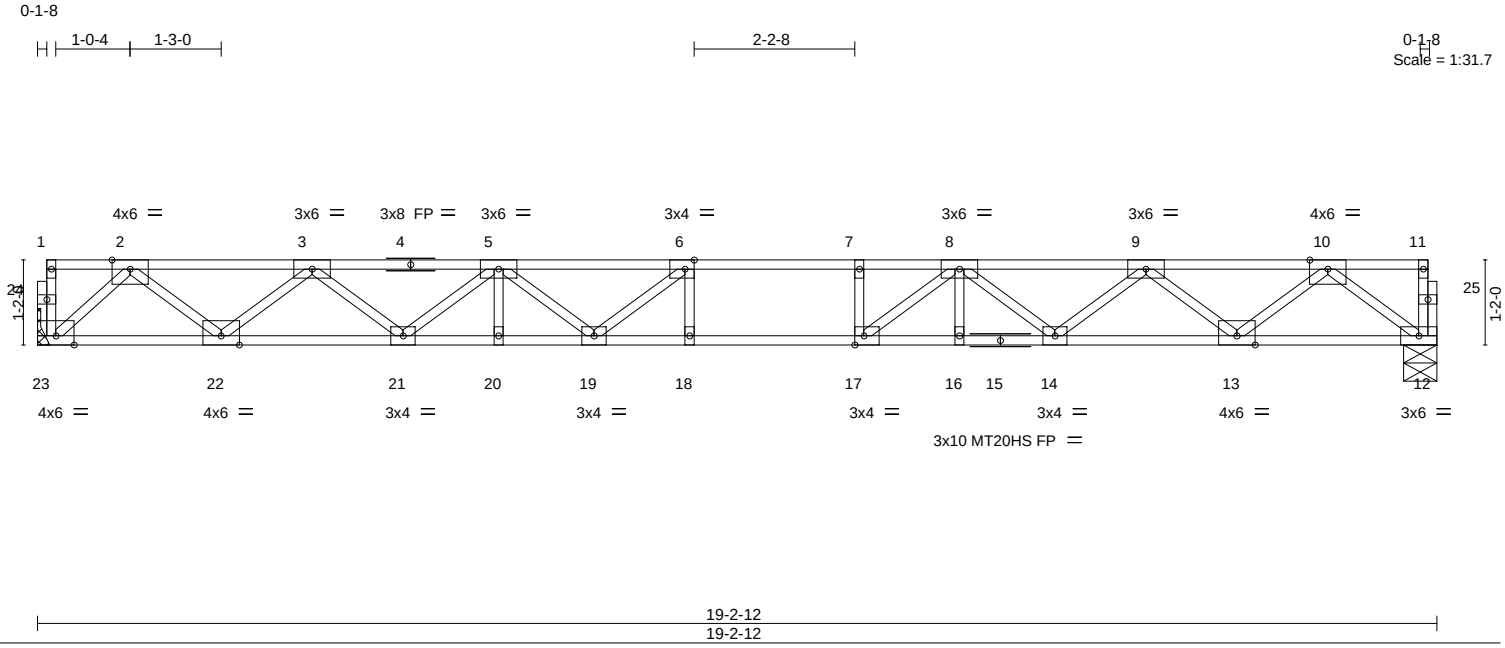

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [17:0-1-8,Edge]

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	0.57	Vert(LL)	-0.36	18	>628	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.78	Vert(CT)	-0.50	18	>457	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.08	12	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 97 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP SS(flat)
BOT CHORD 2x4 SP SS(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. (lb/size) 23=1038/Mechanical, 12=1038/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2062/0, 3-5=-3604/0, 5-6=-4500/0, 6-7=-4691/0, 7-8=-4691/0, 8-9=-3702/0, 9-10=-2234/0
BOT CHORD 22-23=0/1107, 21-22=0/2986, 20-21=0/4223, 19-20=0/4223, 18-19=0/4691, 17-18=0/4691, 16-17=0/4260, 14-16=0/4260, 13-14=0/3133, 12-13=0/1301
WEBS 2-23=-1494/0, 2-22=0/1244, 3-22=-1202/0, 3-21=0/805, 5-21=-790/0, 5-19=0/481, 6-19=-598/137, 10-12=-1630/0, 10-13=0/1213, 9-13=-1171/0, 9-14=0/740, 8-14=-712/0, 8-17=-32/928, 7-17=-317/0

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 1.5x3 MT20 unless otherwise indicated.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

November 25,2019

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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FTD	F14A	ROOF TRUSS	1	1	I39408074
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 25 09:30:36 2019 Page 1
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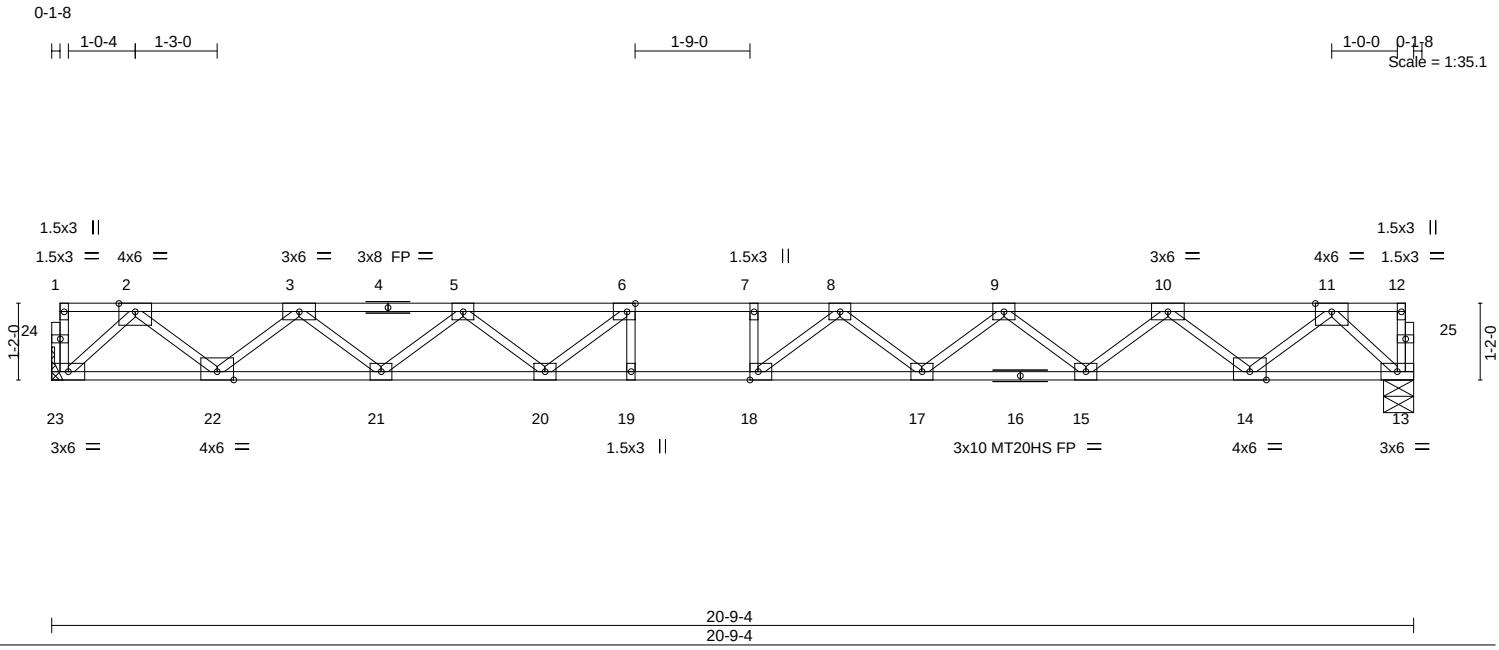

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [18:0-1-8,Edge]

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	0.43	Vert(LL)	-0.37	18	>658	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.60	Vert(CT)	-0.52	17-18	>477	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.08	13	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 103 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP SS(flat)
BOT CHORD 2x4 SP SS(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. (lb/size) 13=897/0-5-8, 23=897/Mechanical

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1804/0, 3-5=-3198/0, 5-6=-4059/0, 6-7=-4394/0, 7-8=-4394/0, 8-9=-4058/0, 9-10=-3187/0, 10-11=-1791/0
BOT CHORD 22-23=0/959, 21-22=0/2625, 20-21=0/3744, 19-20=0/4394, 18-19=0/4394, 17-18=0/4334, 15-17=0/3744, 14-15=0/2612, 13-14=0/943
WEBS 11-13=-1284/0, 2-23=-1294/0, 11-14=0/1103, 2-22=0/1101, 10-14=-1069/0, 3-22=-1069/0, 10-15=0/749, 3-21=0/745, 9-15=-724/0, 5-21=-711/0, 9-17=0/409, 5-20=0/508, 8-17=-388/0, 6-20=-639/0, 8-18=-247/452

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 3x4 MT20 unless otherwise indicated.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Job	Truss	Truss Type	Qty	Ply	HERRING
Master_FTD	F15GR	ROOF TRUSS	1	1	I39408075
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Nov 25 09:30:36 2019 Page 1
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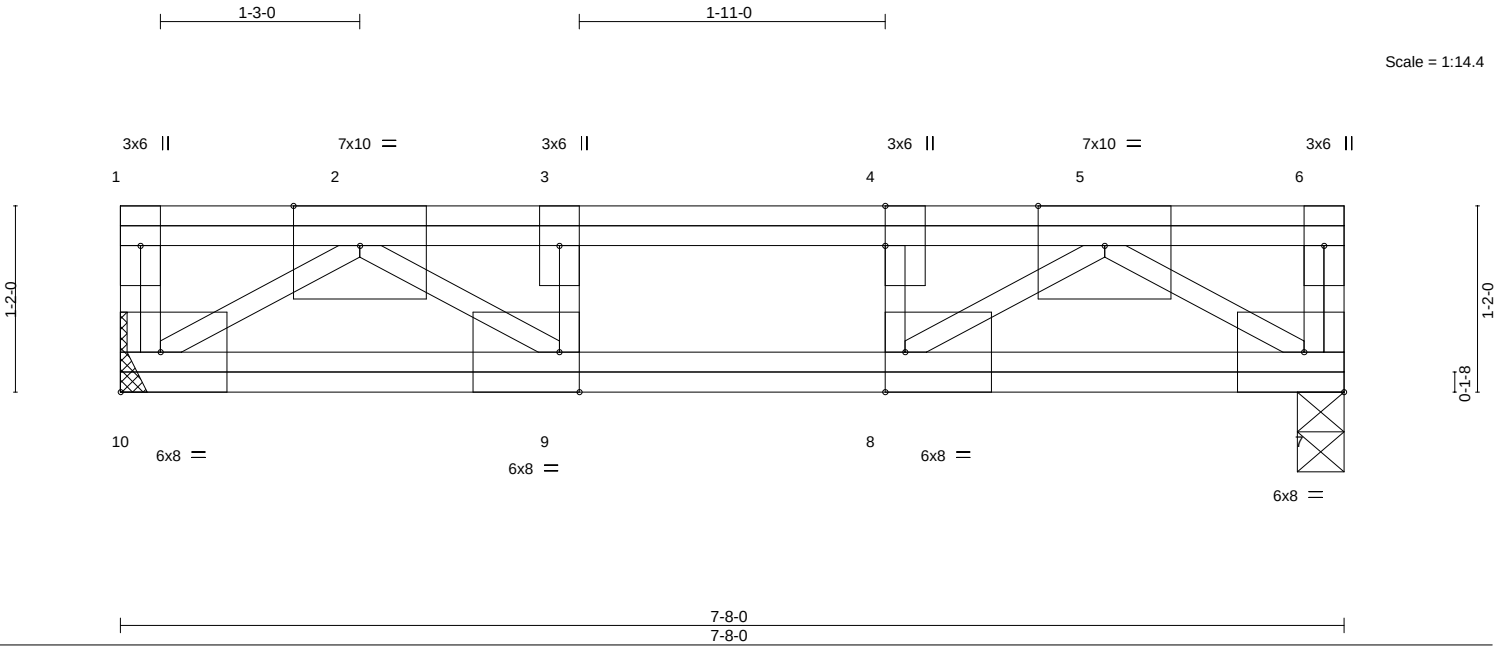

Plate Offsets (X,Y)-- [4:0-3-0,0-0-0], [8:0-1-8,Edge], [9:0-1-8,Edge]

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	0.22	Vert(LL)	-0.04	9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.29	Vert(CT)	-0.06	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 60 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP SS(flat)
BOT CHORD 2x4 SP SS(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. (lb/size) 10=1891/Mechanical, 7=1891/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=-310/0, 6-7=-310/0, 2-3=-3594/0, 3-4=-3594/0, 4-5=-3594/0
BOT CHORD 9-10=0/2328, 8-9=0/3594, 7-8=0/2328
WEBS 2-10=-2798/0, 2-9=0/1733, 5-7=-2798/0, 5-8=0/1733, 3-9=-876/0, 4-8=-876/0

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 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 7-10=-10, 1-6=-500(F=-400)

November 25,2019

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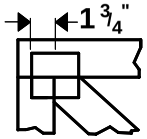
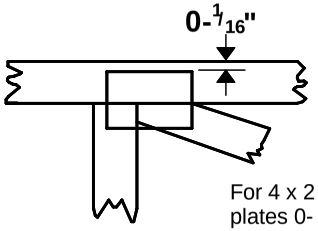
Symbols

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.

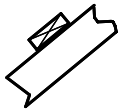
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

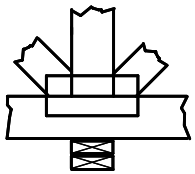
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

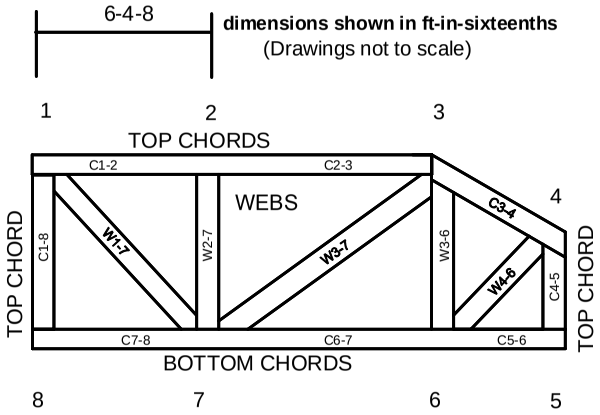


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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 Reference Sheet: MII-7473 rev. 10/03/2015

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.