ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

RE: 1478609 - Ivercon / Lot 45 Sweetwater

Site Information:

Project Customer: IVERCON CONSTRUCTION Project Name: 1478609
Lot/Block: 21 Subdivision: Sweetwater
Model:
Address:
City: LINDEN State: NC

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.2
Wind Code: N/A Wind Speed: N/A mph Design Method: N/A
Roof Load: N/A psf Floor Load: 55.0 psf

Mean Roof Height (feet): N/A Exposure Category: N/A

No.	Seal#	Truss Name	Date
1	I36259697	F01	2/28/19
2	I36259698	F02	2/28/19
3	I36259699	F03	2/28/19
4	I36259700	F04	2/28/19
5	I36259701	F05	2/28/19
6	I36259702	F06	2/28/19
7	I36259703	F07	2/28/19
8	I36259704	F08	2/28/19
9	I36259705	F09	2/28/19

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

Truss Design Engineer's Name: Sevier, Scott
My license renewal date for the state of North Carolina is December 31, 2019.

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.

February 28,2019

Sevier, Scott

Job	Truss	Truss Type	Qty	Ply	Ivercon / Lot 21 Sweetwater	I36259697
1478609	F01	Floor Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Feb 27 13:30:50 2019 Page 1
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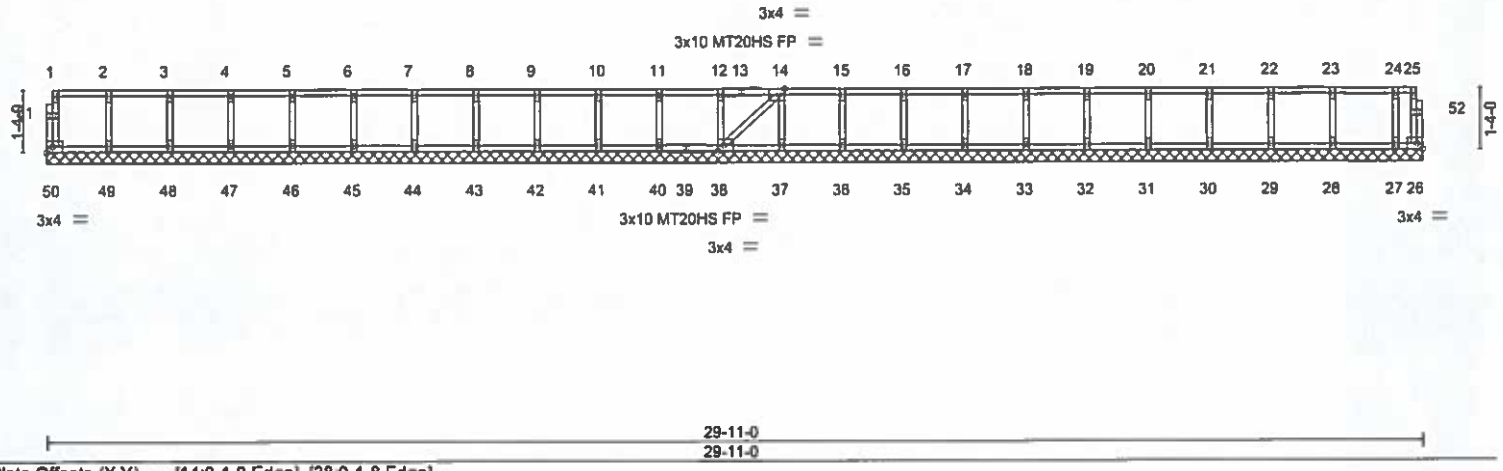

29-11-0
29-11-0

Plate Offsets (X,Y)— [14:0-1-8,Edge], [38:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	38	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 132 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 6-0-0 oc bracing.

REACTIONS. All bearings 29-11-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 26
Max Grav All reactions 250 lb or less at joint(s) 50, 26, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27

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

NOTES-
1) All plates are MT20 plates unless otherwise indicated.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 26.
7) 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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818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	Ivercon / Lot 45 Sweetwater	I36259698
1478609	F02	Floor	8	1	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Feb 27 13:30:54 2019 Page 1
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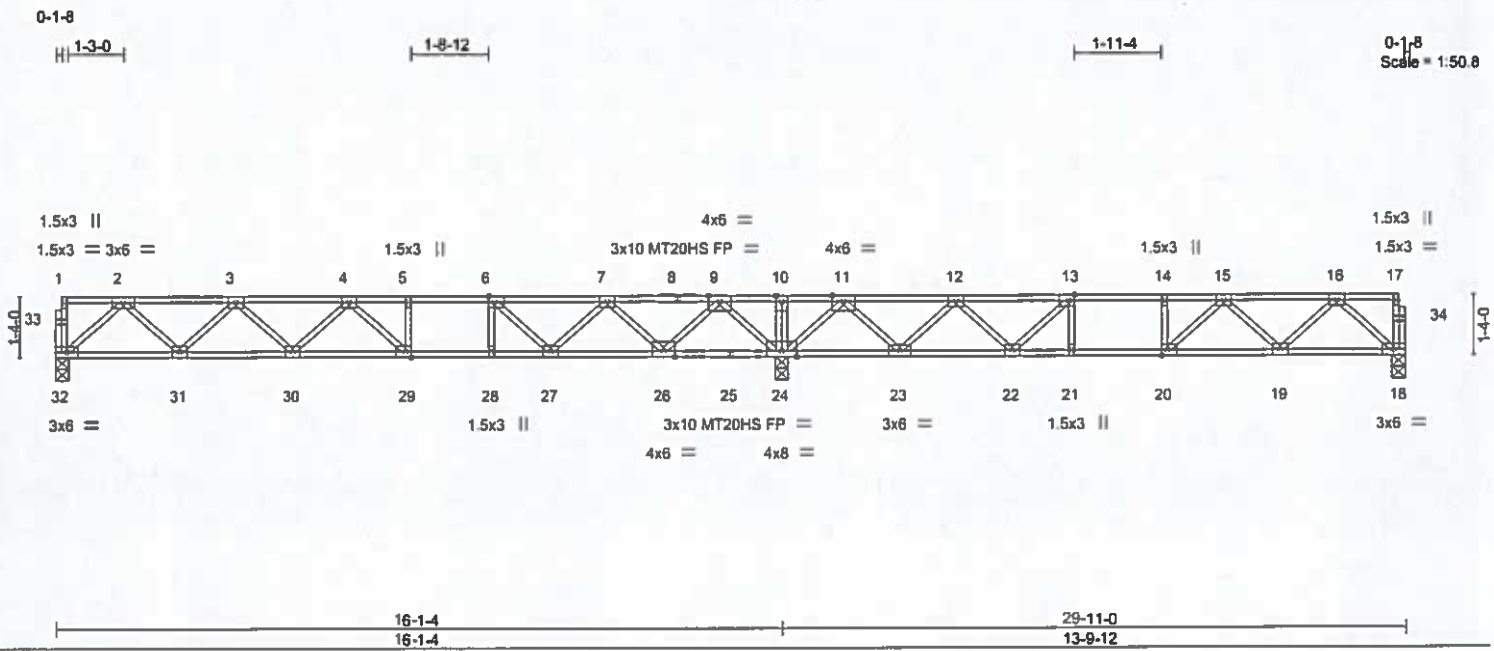


Plate Offsets (X,Y)— [6:0-1-8,Edge], [13:0-1-8,Edge], [20:0-1-8,Edge], [29:0-1-8,Edge]

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	0.81	Vert(LL)	-0.19	29-30	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.94	Vert(CT)	-0.26	29-30	>752	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.04	18	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 153 lb	FT = 20%F, 11%E

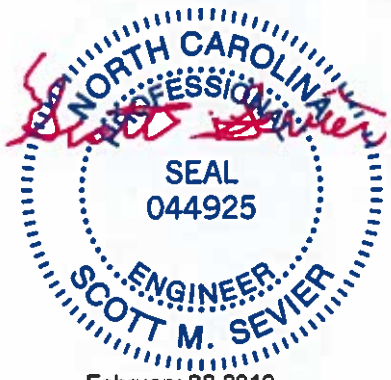
LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat) *Except*
18-25: 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (lb/size) 32=737/0-3-8, 24=1926/0-3-8, 18=588/0-3-8
Max Grav 32=785(LC 3), 24=1926(LC 1), 18=648(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1376/0, 3-4=-2147/0, 4-5=-2240/0, 5-6=-2240/0, 6-7=-1718/64, 7-9=-598/496, 9-10=0/1819, 10-11=0/1819, 11-12=-399/580, 12-13=-1276/180, 13-14=-1583/0, 14-15=-1583/0, 15-16=-1082/0
BOT CHORD 31-32=0/837, 30-31=0/1895, 29-30=0/2334, 28-29=0/2240, 27-28=0/2240, 26-27=-265/1278, 24-26=-781/0, 23-24=-945/0, 22-23=-365/972, 21-22=0/1583, 20-21=0/1583, 19-20=0/1441, 18-19=0/689
WEBS 2-32=-1112/0, 9-24=-1446/0, 2-31=0/748, 9-26=0/1062, 3-31=-722/0, 7-26=-1012/0, 3-30=0/351, 7-27=0/696, 4-30=-260/43, 6-27=-877/0, 4-29=-415/89, 6-28=0/291, 11-24=-1281/0, 11-23=0/914, 12-23=-874/0, 12-22=0/525, 13-22=-635/0, 16-18=-915/0, 16-19=0/547, 15-19=-499/6

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) 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.
5) CAUTION, Do not erect truss backwards.



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Job	Truss	Truss Type	Qty	Ply	Ivercon / Lot 46 Sweetwater	I36259699
1478609	F03	Floor Girder	1	1	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Feb 27 13:30:56 2019 Page 1
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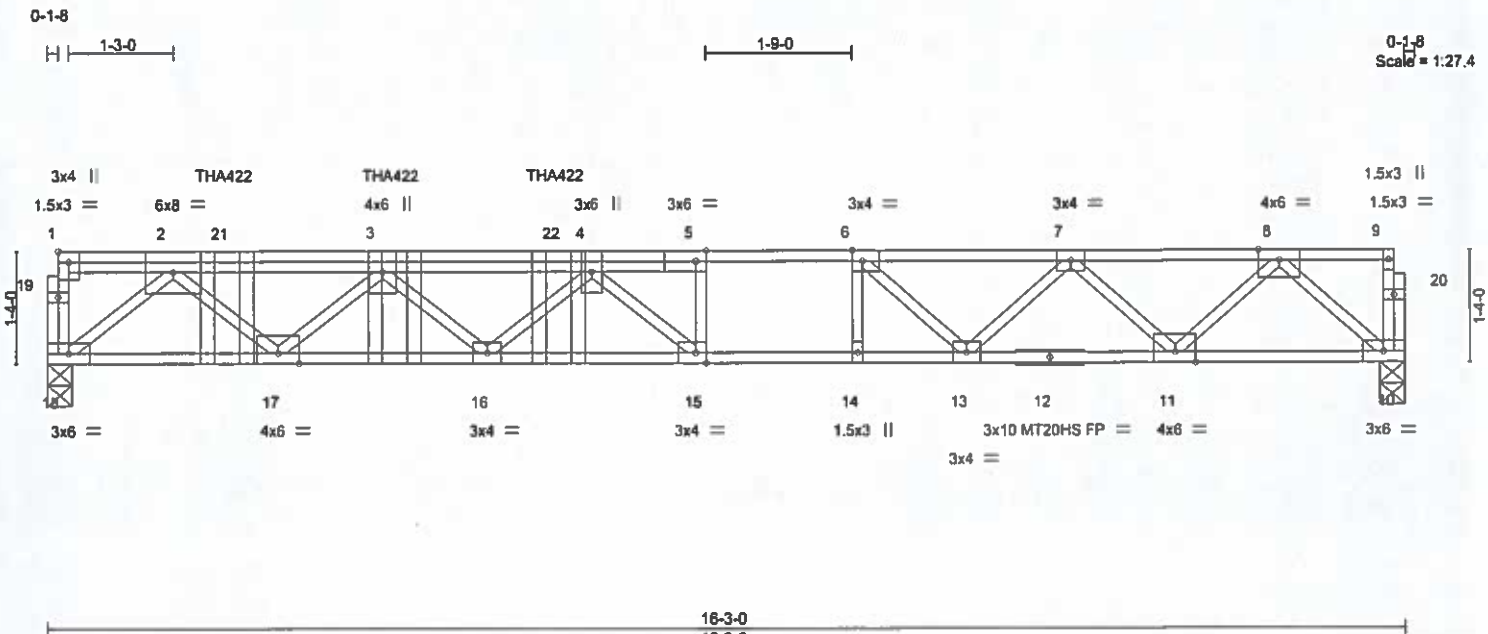

Plate Offsets (X,Y)— [1:Edge,0-1-8], [5:0-1-8,Edge], [6:0-1-8,Edge], [15:0-1-8,Edge]

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	0.94	Vert(LL)	-0.19	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.26	15-16	>736	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.52	Horz(CT)	0.05	10	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 95 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat) *Except* 1-5: 2x4 SP No.2(flat)
BOT CHORD 2x4 SP SS(flat) *Except* 10-12: 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-3-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 18=1067/0-3-8, 10=937/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2029/0, 3-4=-3170/0, 4-5=-3262/0, 5-6=-3252/0, 6-7=-2778/0, 7-8=-1709/0
BOT CHORD 17-18=0/1226, 16-17=0/2809, 15-16=0/3474, 14-15=0/3252, 13-14=0/3252, 11-13=0/2366, 10-11=0/1016
WEBS 2-18=-1594/0, 2-17=0/1089, 3-17=-1059/0, 3-16=0/490, 4-16=-412/0, 4-15=-527/0, 8-10=-1350/0, 8-11=0/965, 7-11=-914/0, 7-13=0/615, 6-13=-771/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
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) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-1-12 from the left end to 6-1-4 to connect truss(es) to back face of top chord.
5) Fill all nail holes where hanger is in contact with lumber.
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: 10-18=-10, 1-9=-100
Concentrated Loads (lb)
Vert: 3=-86(B) 21=-86(B) 22=-86(B)

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Job	Truss	Truss Type	Qty	Ply	Ivercon / Lot 45 Sweetwater	I36259700
1478609	F04	Floor	1	1	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Feb 27 13:30:58 2019 Page 1
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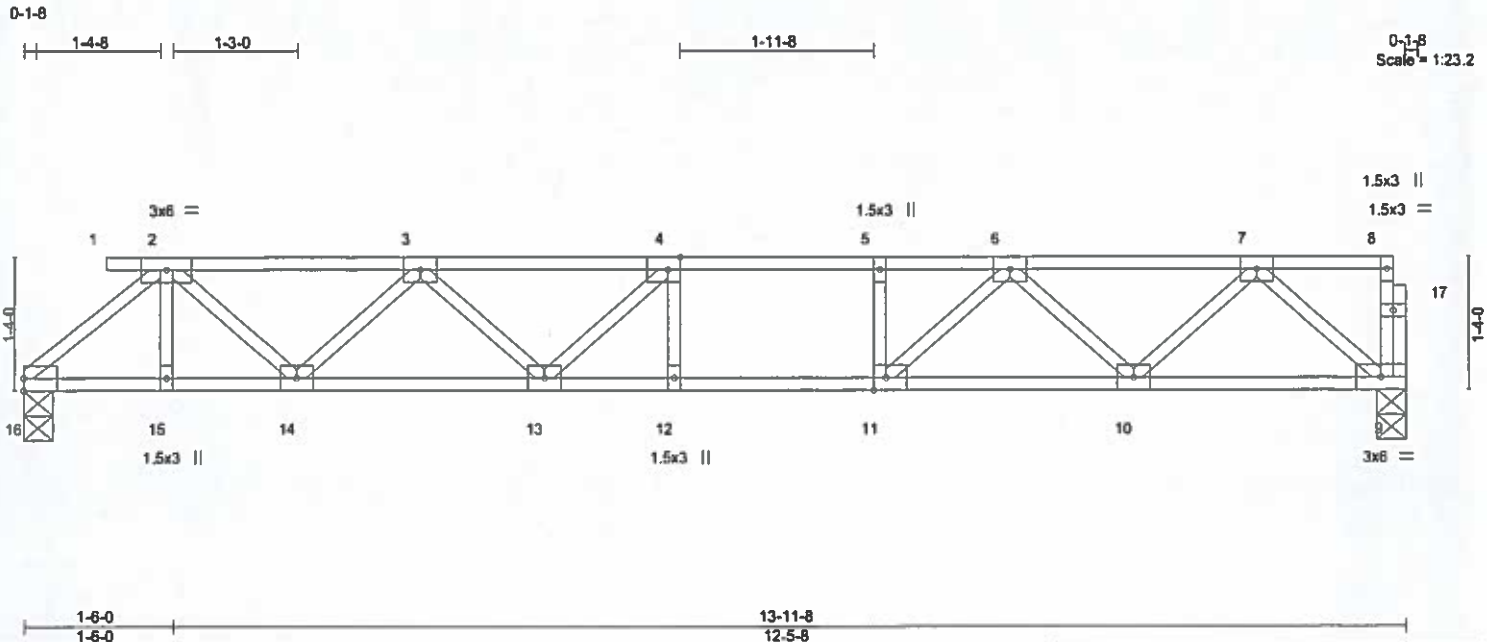

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [11:0-1-8,Edge]

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	0.64	Vert(LL)	-0.14	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.78	Vert(CT)	-0.19	12-13	>875	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 70 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) 16=680/0-3-8, 9=752/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1331/0, 3-4=-2004/0, 4-5=-2115/0, 5-6=-2115/0, 6-7=-1294/0
BOT CHORD 15-16=0/800, 14-15=0/800, 13-14=0/1824, 12-13=0/2115, 11-12=0/2115, 10-11=0/1779, 9-10=0/804
WEBS 2-16=-1045/0, 2-14=0/722, 3-14=-685/0, 3-13=0/328, 4-13=-352/52, 7-9=-1068/0, 7-10=0/681, 6-10=-675/0, 6-11=0/616, 5-11=-268/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
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	Ivercon / Lot 45 Sweetwater	
1478609	F05	Floor	11	1	Job Reference (optional)	I36259701

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Feb 27 13:31:02 2019 Page 1
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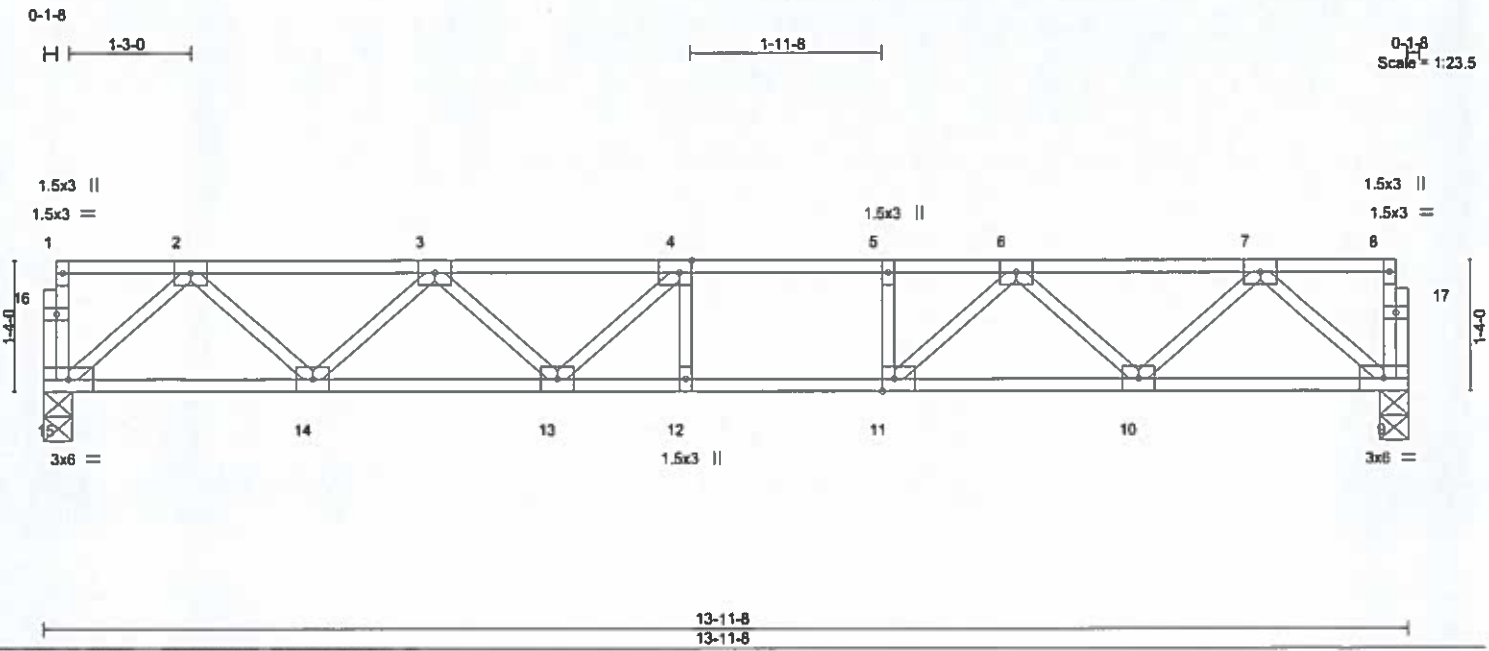

Plate Offsets (X,Y)— [4:0-1-8,Edge], [11:0-1-8,Edge]

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	0.63	Vert(LL)	-0.14	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.18	12-13	>892	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 72 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) 15=748/0-3-8, 9=748/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1301/0, 3-4=-1971/0, 4-5=-2093/0, 5-6=-2093/0, 6-7=-1285/0
BOT CHORD 14-15=0/793, 13-14=0/1784, 12-13=0/2093, 11-12=0/2093, 10-11=0/1765, 9-10=0/799
WEBS 2-15=-1053/0, 2-14=0/706, 3-14=-672/0, 3-13=0/333, 4-13=-362/38, 7-9=-1062/0, 7-10=0/675, 6-10=-667/0, 6-11=0/607, 5-11=-265/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
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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Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	Ivercon / Lot #5 Sweetwater
1478609	F05	Floor Supported Gable	1	1	I36259702
					Job Reference (optional)

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Feb 27 13:31:03 2019 Page 1
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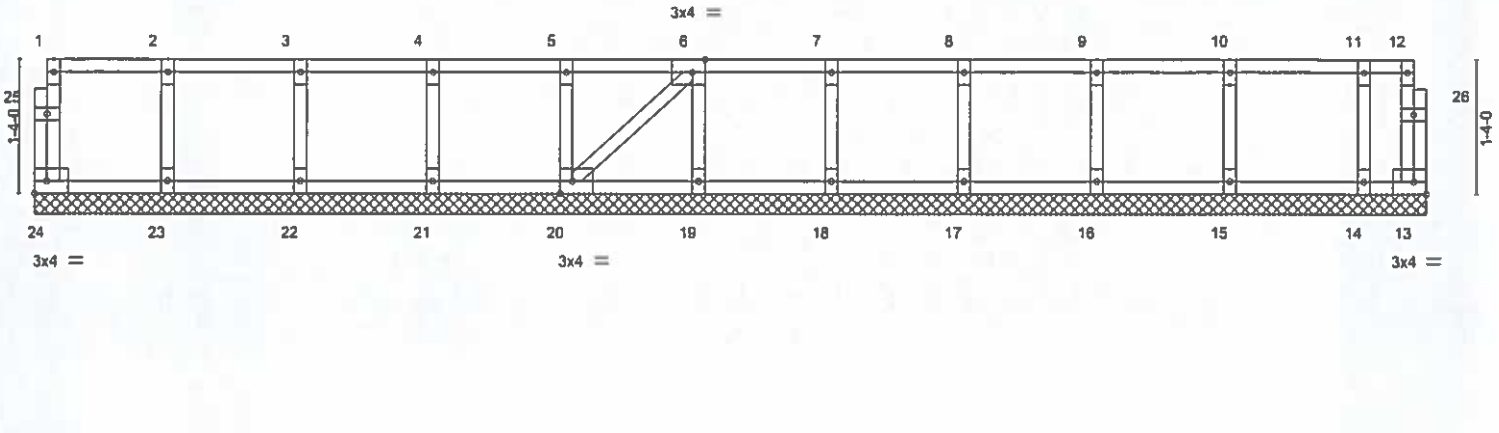

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [20:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	20	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 66 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 6-0-0 oc bracing.

REACTIONS. All bearings 13-11-8.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 13
Max Grav All reactions 250 lb or less at joint(s) 24, 13, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13.
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	Ivercon / Lot #5 Sweetwater	I36259703
1478609	F07	Floor	8	1	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Feb 27 13:31:05 2019 Page 1
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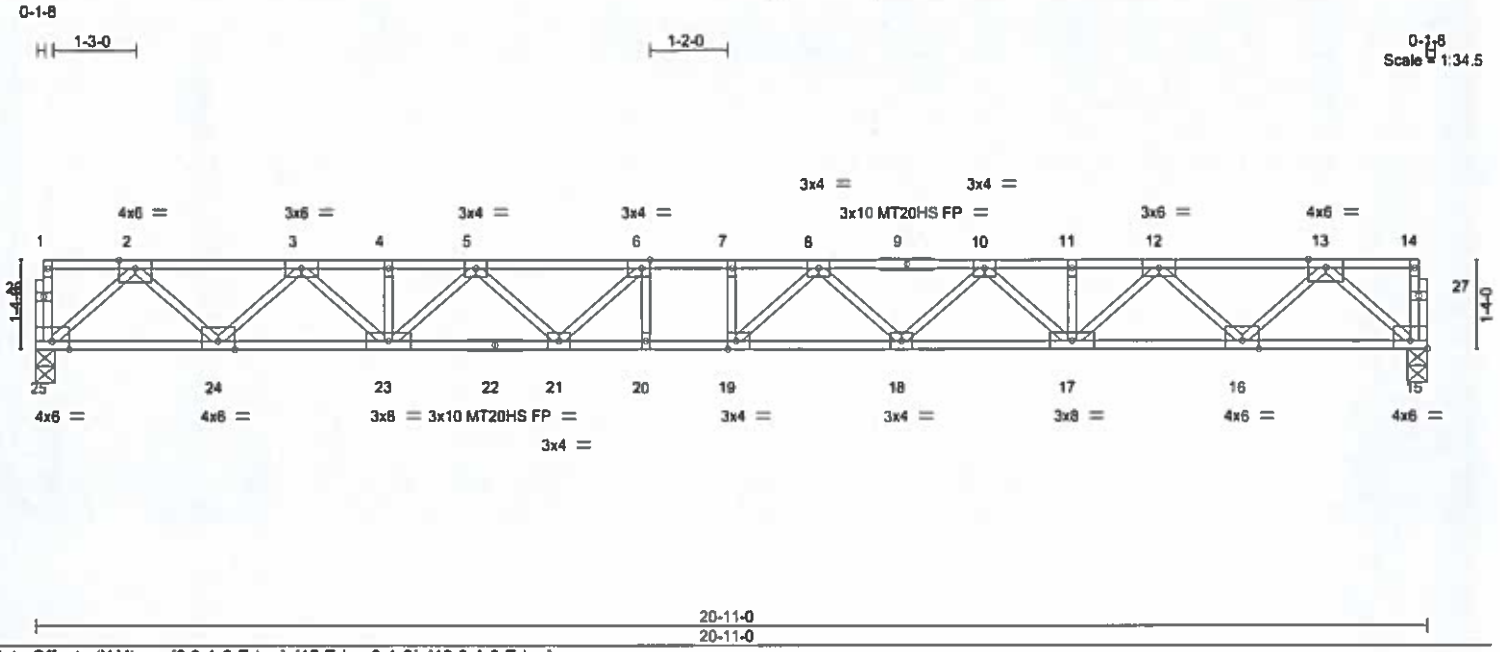

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [15:Edge,0-1-8], [19:0-1-8,Edge]

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	0.77	Vert(LL)	-0.43	19	>583	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.59	18-19	>422	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.10	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 111 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 4-2-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (lb/size) 25=1130/0-3-8, 15=1130/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2124/0, 3-4=-3645/0, 4-5=-3645/0, 5-6=-4514/0, 6-7=-4825/0, 7-8=-4825/0, 8-10=-4519/0, 10-11=-3643/0, 11-12=-3643/0, 12-13=-2125/0
BOT CHORD 24-25=0/1234, 23-24=0/2986, 21-23=0/4208, 20-21=0/4825, 19-20=0/4825, 18-19=0/4795, 17-18=0/4210, 16-17=0/2985, 15-16=0/1234
WEBS 2-25=-1640/0, 2-24=0/1238, 3-24=-1198/0, 3-23=0/896, 5-23=-766/0, 5-21=0/539, 6-21=-646/27, 13-15=-1641/0, 13-16=0/1239, 12-16=-1197/0, 12-17=0/894, 10-17=-771/0, 10-18=0/430, 8-18=-417/0, 8-19=-308/445

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) 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.

February 28,2019

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

Job	Truss	Truss Type	Qty	Ply	Ivercon / Lot 45 Sweetwater	I36259704
1478609	F08	Floor Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Feb 27 13:31:06 2019 Page 1
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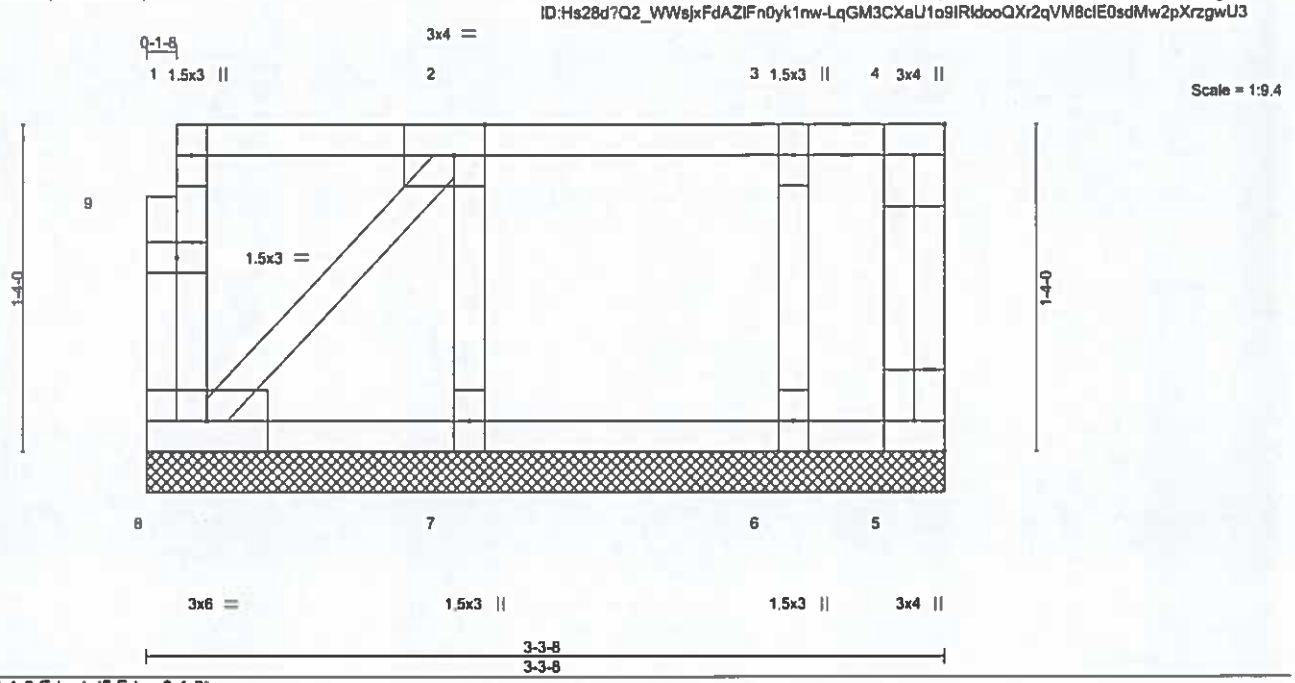

Plate Offsets (X,Y)— [2:0-1-8,Edge], [5:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00		n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-P							Weight: 21 lb	FT = 20%F, 11%E

LUMBER-

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

BRACING-

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

REACTIONS. All bearings 3-3-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 5, 8, 7, 6

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) 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.
5) CAUTION, Do not erect truss backwards.

February 28,2019

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Ivercon / Lot ~~45~~ Sweetwater
1478609	F09	Floor	3	1	I36259705
					Job Reference (optional)

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Feb 27 13:31:07 2019 Page 1
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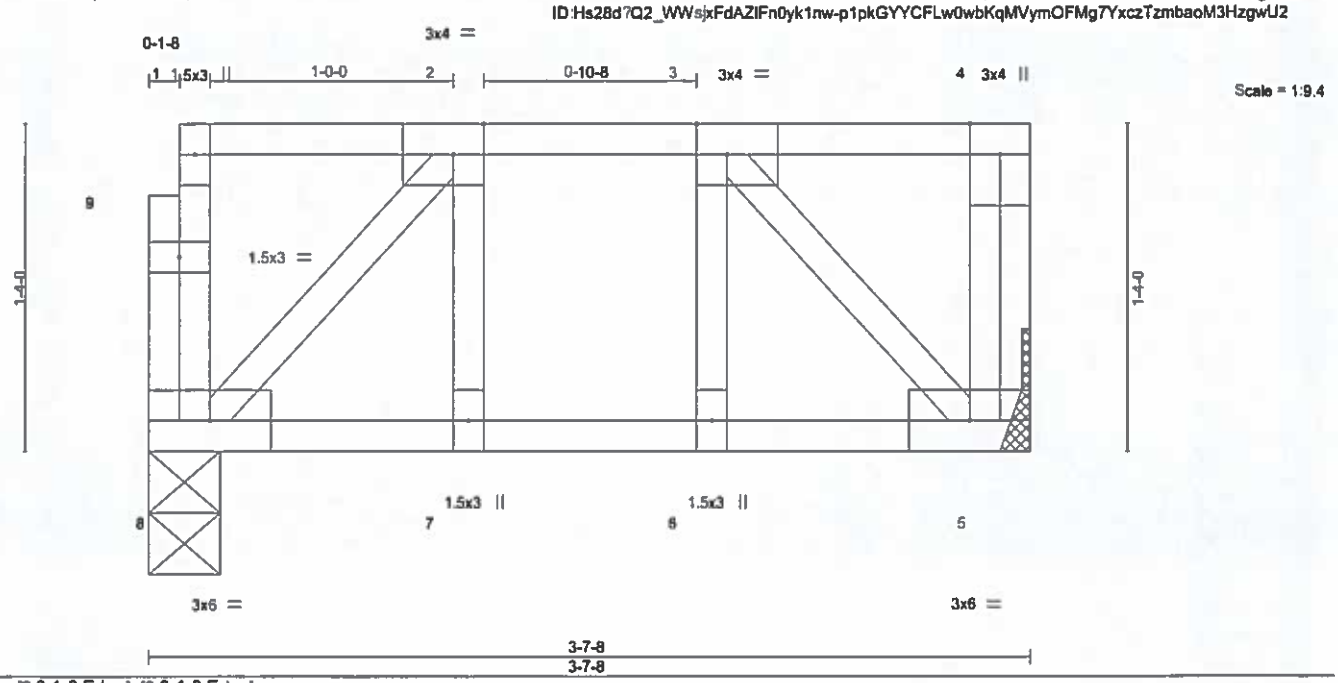

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	-0.00	6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.07	Vert(CT)	-0.00	6	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 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 3-7-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=179/0-3-8, 5=186/Mechanical

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

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) CAUTION, Do not erect truss backwards.

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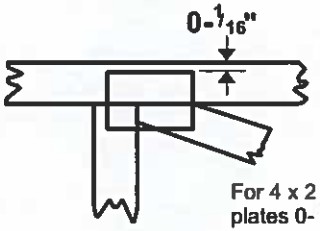
Symbols

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

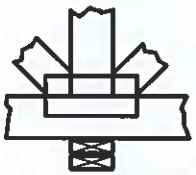
4 x 4

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

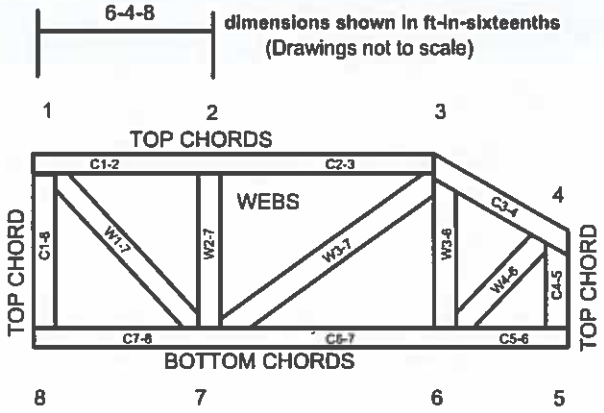


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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 BY TRENCO
A MiTek Affiliate

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.