ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 24095457F
BCTH-17

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by The Building Center (Gastonia, NC).

Pages or sheets covered by this seal: I68234523 thru I68234534

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844

September 17,2024

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	BCTH-17
24095457F	L3	Floor Supported Gable	1	1	I68234523
					Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:57 2024 Page 1
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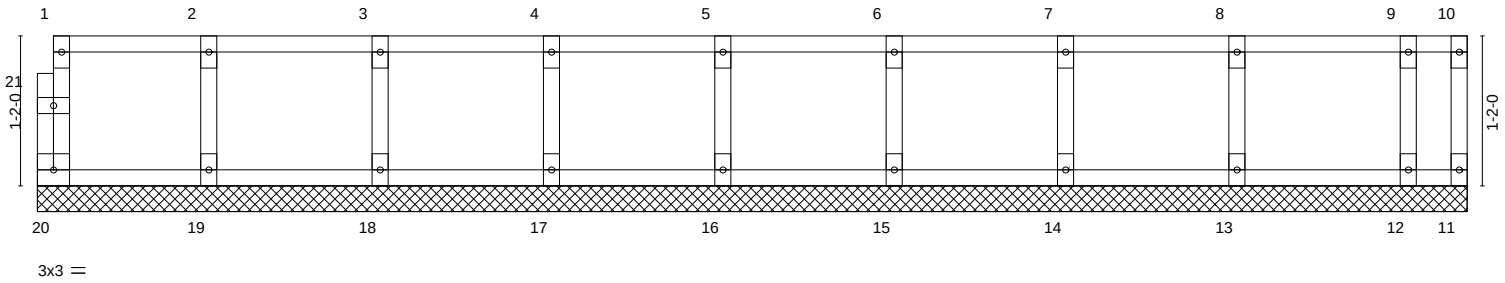

11-1-8
11-1-8

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	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 48 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 11-1-8.
(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) 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.
6) CAUTION, Do not erect truss backwards.

September 17,2024

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Job	Truss	Truss Type	Qty	Ply	BCTH-17
24095457F	L2	Floor Supported Gable	1	1	I68234524

Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:57 2024 Page 1
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0-1-8

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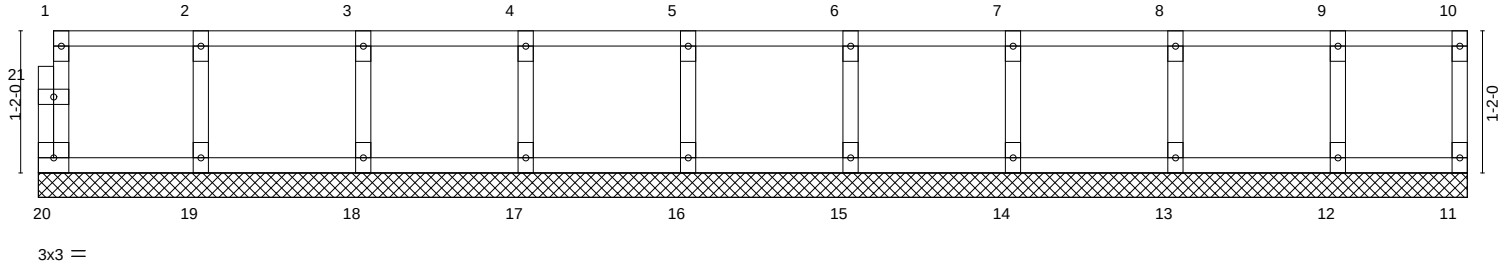

11-8-12
11-8-12

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	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 49 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 11-8-12.
(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) 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.
6) CAUTION, Do not erect truss backwards.

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Job	Truss	Truss Type	Qty	Ply	BCTH-17
24095457F	L1	Floor Supported Gable	1	1	I68234525

Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:56 2024 Page 1
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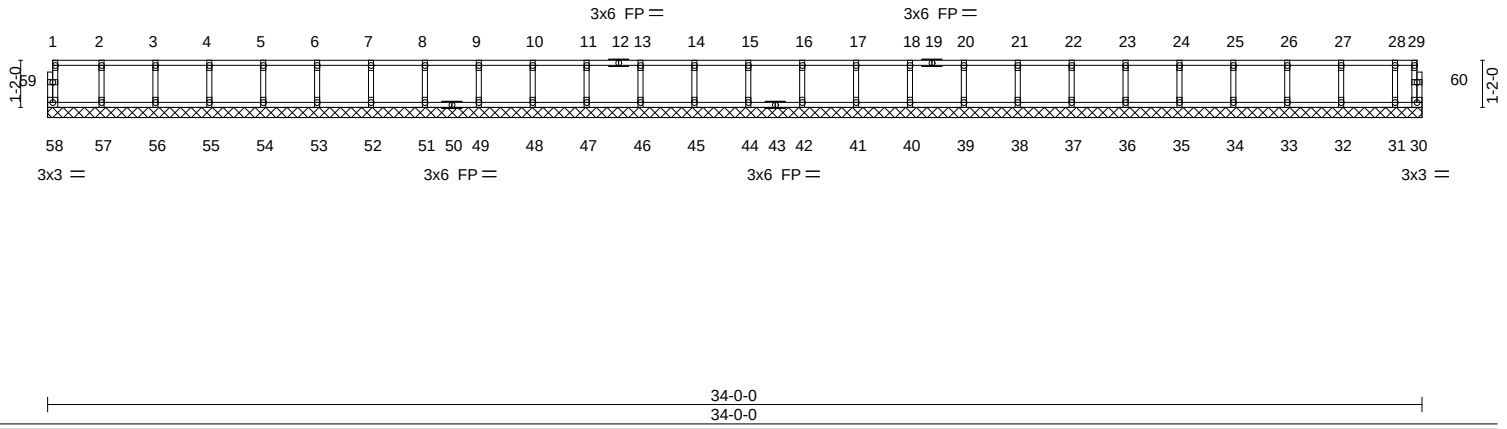

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	30	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 140 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 34-0-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 58, 30, 57, 56, 55, 54, 53, 52, 51, 49, 48, 47, 46, 45, 44, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31

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.

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Job	Truss	Truss Type	Qty	Ply	BCTH-17
24095457F	F9GR	Floor Girder	1	1	I68234526

Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:55 2024 Page 1
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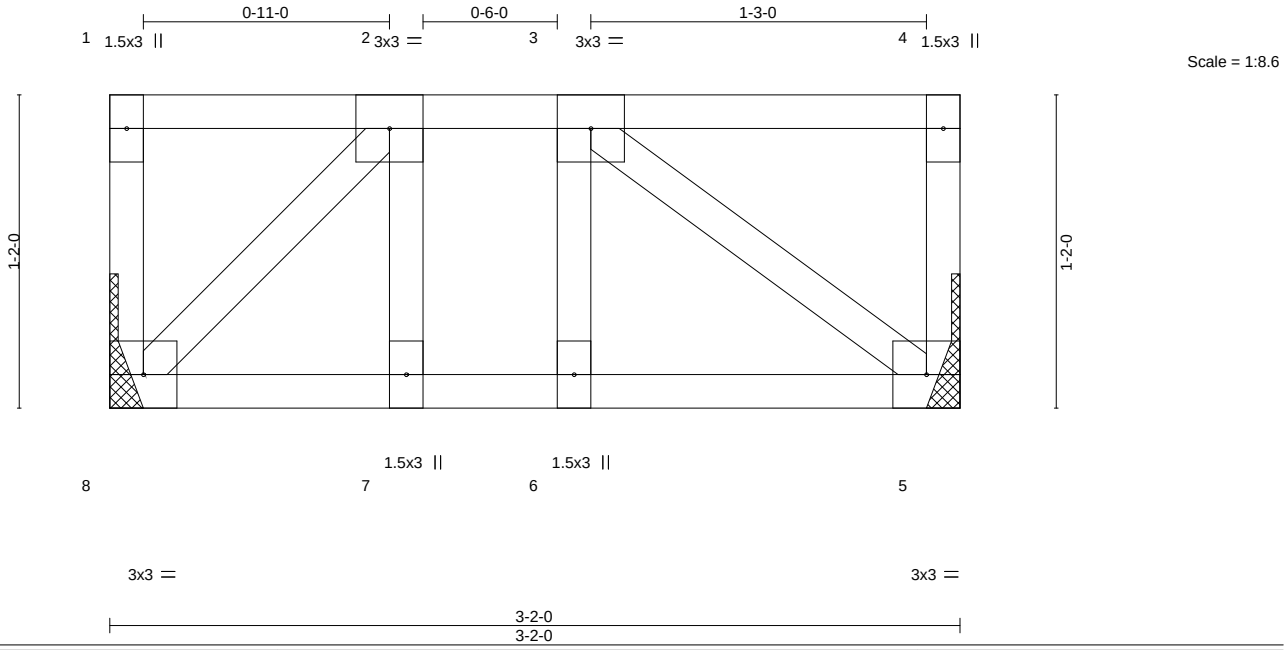

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	-0.01	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(CT)	-0.02	5-6	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.16	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 19 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 3-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=Mechanical, 5=Mechanical
Max Grav 8=453(LC 1), 5=511(LC 1)

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

TOP CHORD	2-3=-491/0
BOT CHORD	7-8=0/491, 6-7=0/491, 5-6=0/491
WEBS	3-5=-616/0, 2-8=-694/0

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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 644 lb down at 1-10-4 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: 5-8=-20, 1-4=-100
   Concentrated Loads (lb)
   Vert: 3=-599(F)

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Job	Truss	Truss Type	Qty	Ply	BCTH-17
24095457F	F8	Floor	1	1	I68234527
					Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:55 2024 Page 1
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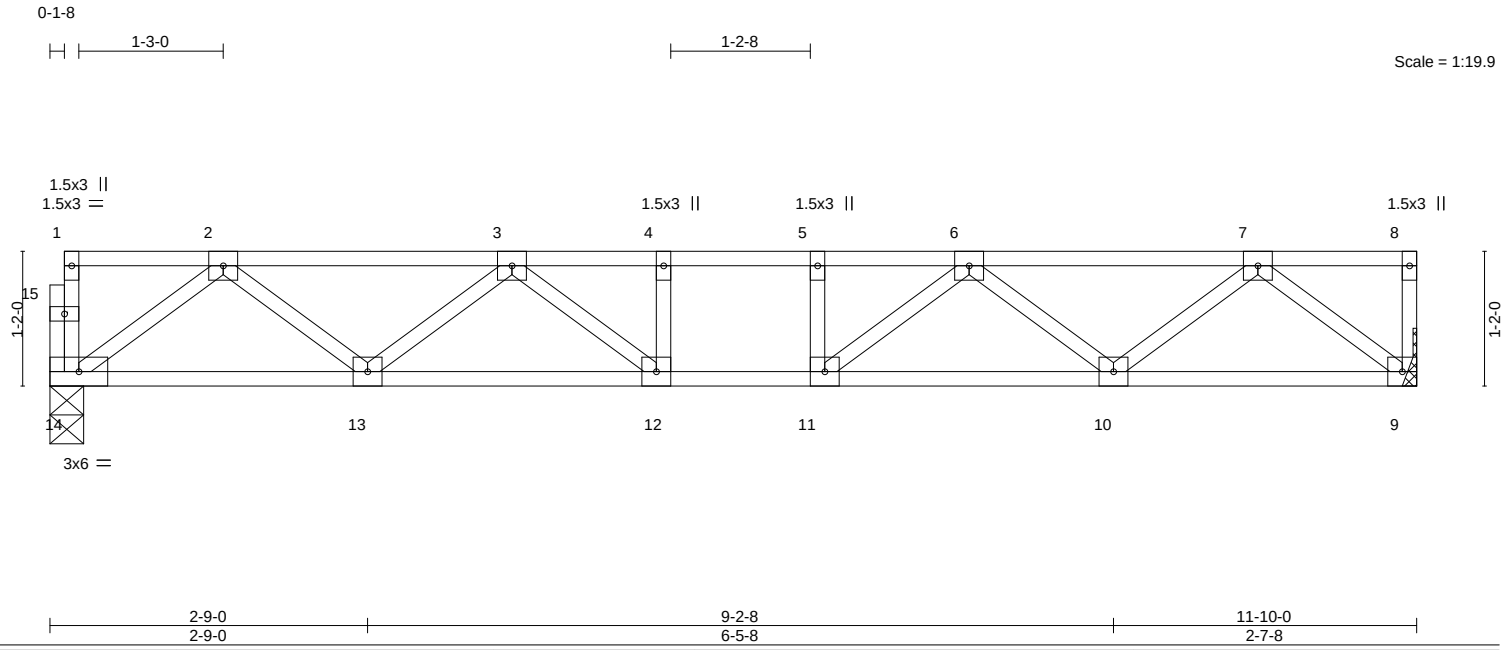

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.29	Vert(LL)	-0.07	12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.54	Vert(CT)	-0.10	12	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							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) 14=0-3-8, 9=Mechanical
Max Grav 14=693(LC 1), 9=699(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1338/0, 3-4=-1931/0, 4-5=-1931/0, 5-6=-1931/0, 6-7=-1314/0
BOT CHORD 13-14=0/842, 12-13=0/1760, 11-12=0/1931, 10-11=0/1746, 9-10=0/811
WEBS 7-9=-1035/0, 2-14=-1054/0, 7-10=0/655, 2-13=0/645, 6-10=-563/0, 3-13=-550/0, 6-11=0/411, 3-12=0/398

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
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.
5) CAUTION, Do not erect truss backwards.

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	BCTH-17
24095457F	F7GR	Floor Girder	1	1	I68234528
					Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:55 2024 Page 1
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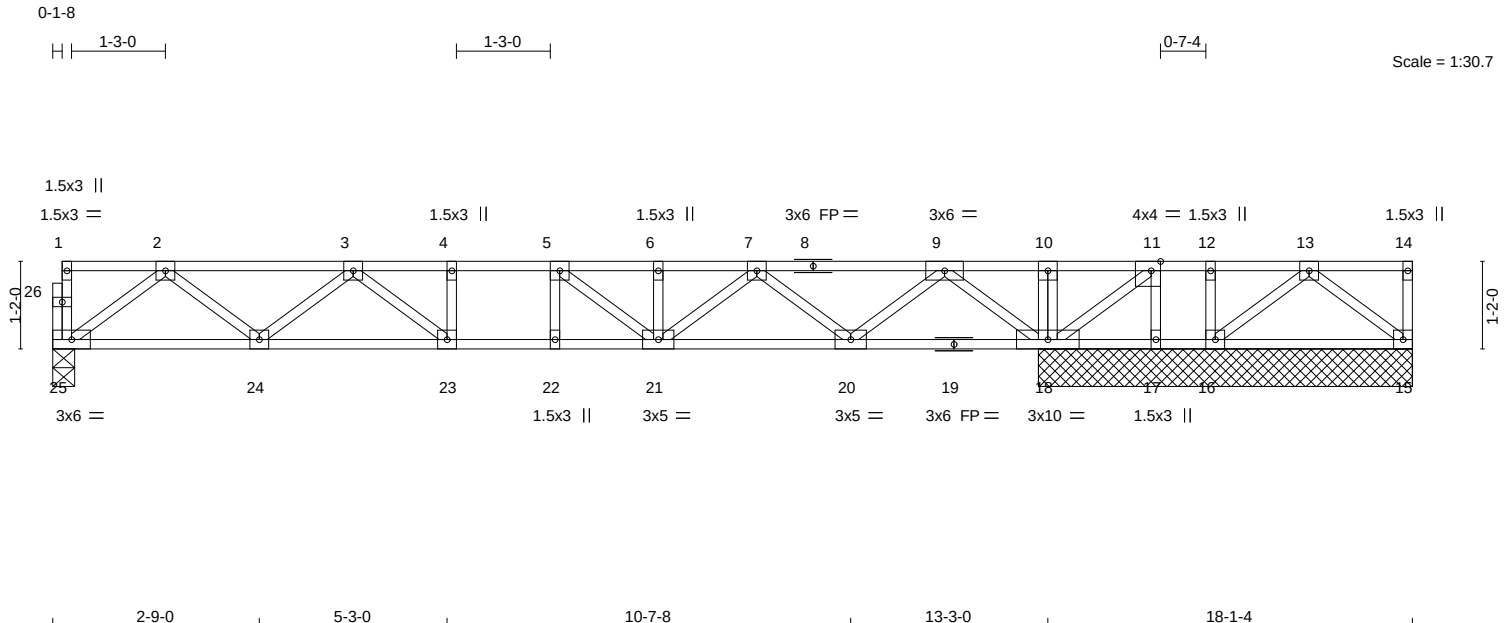

Plate Offsets (X,Y)-- [11:0-1-8,Edge]

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	0.76	Vert(LL)	-0.07	23	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.61	Vert(CT)	-0.11	23	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.47	Horz(CT)	0.02	18	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 95 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 6-0-0 oc bracing.

REACTIONS. (size) 25=0-3-8, 15=4-11-12, 18=4-11-12, 16=4-11-12, 17=4-11-12
Max Uplift 15=-125(LC 1), 17=-824(LC 1)
Max Grav 25=666(LC 1), 18=2334(LC 1), 16=503(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1274/0, 3-4=-1786/0, 4-5=-1786/0, 5-6=-1499/0, 6-7=-1499/0, 7-9=-400/0, 9-10=0/1937, 10-11=0/1937, 11-12=0/694, 12-13=0/694
BOT CHORD 24-25=0/808, 23-24=0/1664, 22-23=0/1786, 21-22=0/1786, 20-21=0/1074, 18-20=-331/0, 17-18=-694/0, 16-17=-694/0
WEBS 2-25=-1011/0, 9-18=-2014/0, 2-24=0/607, 9-20=0/951, 3-24=-508/0, 7-20=-878/0, 3-23=-5/340, 7-21=0/542, 13-15=0/315, 11-18=-1534/0, 13-16=-571/0, 11-17=0/795, 5-21=-458/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 125 lb uplift at joint 15 and 824 lb uplift at joint 17.
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.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 491 lb down at 11-11-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 15-25=-20, 1-14=-100
Concentrated Loads (lb)
Vert: 9=-411(B)

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818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	BCTH-17
24095457F	F6	Floor	2	1	I68234529
					Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:54 2024 Page 1
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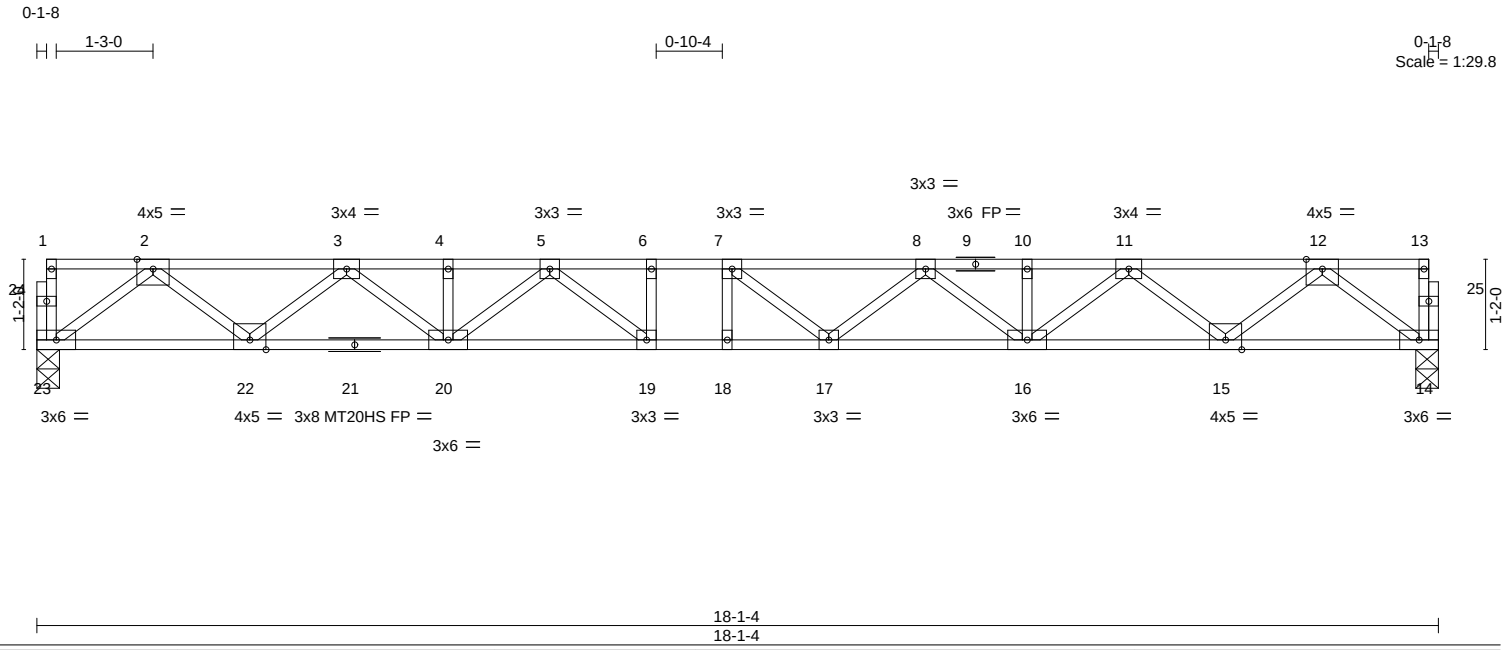

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.87	Vert(LL)	-0.33	17-18	>650	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.49	17-18	>435	240	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.08	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 94 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except*
14-21: 2x4 SP No.1(flat)
WEBS 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, Except: 2-2-0 oc bracing: 18-19,17-18.

REACTIONS. (size) 23=0-3-8, 14=0-3-8
Max Grav 23=1065(LC 1), 14=1065(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2272/0, 3-4=-3776/0, 4-5=-3776/0, 5-6=-4556/0, 6-7=-4556/0, 7-8=-4461/0, 8-10=-3770/0, 10-11=-3770/0, 11-12=-2271/0
BOT CHORD 22-23=0/1331, 20-22=0/3140, 19-20=0/4244, 18-19=0/4556, 17-18=0/4556, 16-17=0/4277, 15-16=0/3143, 14-15=0/1330
WEBS 12-14=-1666/0, 2-23=-1667/0, 12-15=0/1226, 2-22=0/1225, 11-15=-1135/0, 3-22=-1129/0, 11-16=0/800, 3-20=0/812, 8-16=-648/0, 5-20=-598/0, 8-17=0/395, 5-19=-14/627, 7-17=-389/181

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.

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Job	Truss	Truss Type	Qty	Ply	BCTH-17
24095457F	F5	Floor	5	1	I68234530
					Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:53 2024 Page 1
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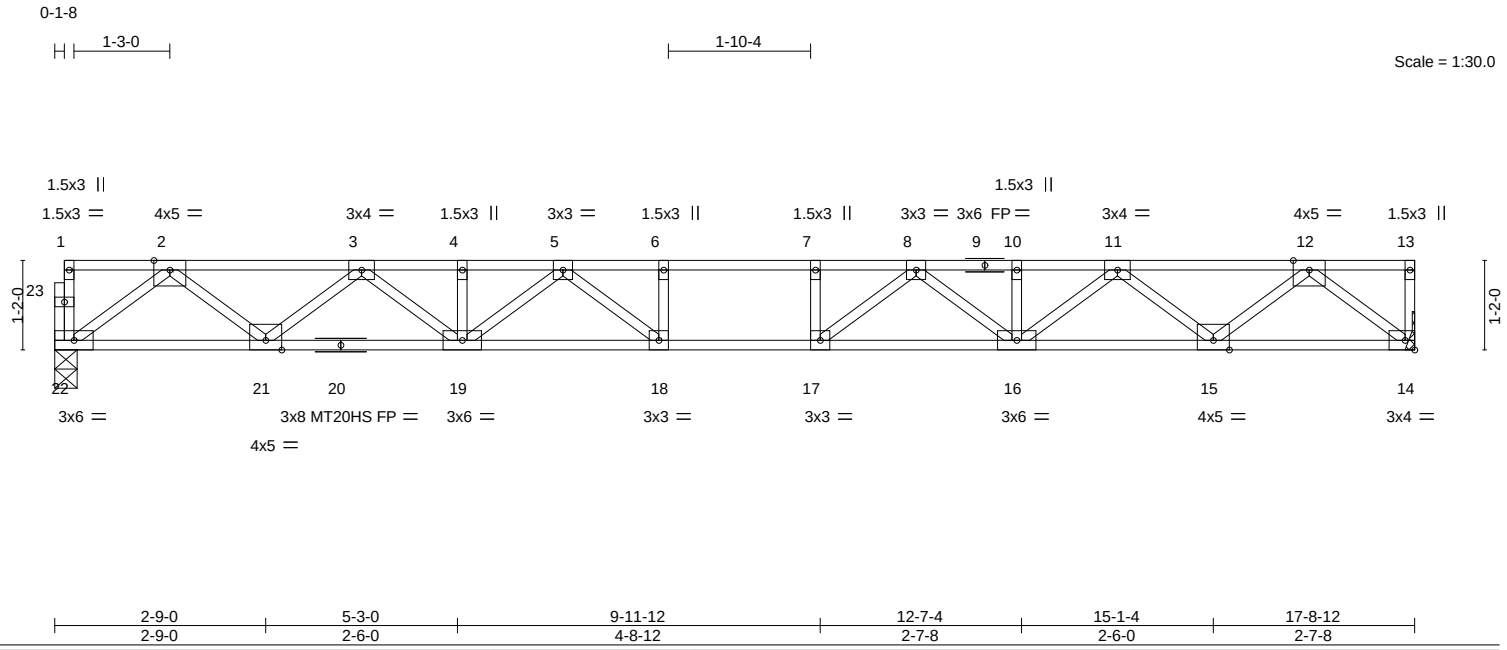

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	-0.30	17-18	>705	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.45	17-18	>471	240	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.08	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 89 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except*
14-20: 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-1-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 22=0-3-8, 14=Mechanical
Max Grav 22=1046(LC 1), 14=1052(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2223/0, 3-4=-3688/0, 4-5=-3688/0, 5-6=-4386/0, 6-7=-4386/0, 7-8=-4386/0, 8-10=-3662/0, 10-11=-3662/0, 11-12=-2179/0
BOT CHORD 21-22=0/1305, 19-21=0/3073, 18-19=0/4120, 17-18=0/4386, 16-17=0/4104, 15-16=0/3037, 14-15=0/1253
WEBS 12-14=-1600/0, 2-22=-1635/0, 12-15=0/1205, 2-21=0/1195, 11-15=-1117/0, 3-21=-1105/0, 11-16=0/798, 3-19=0/786, 8-16=-564/0, 5-19=-551/0, 8-17=-30/675, 5-18=-44/661, 6-18=-279/0, 7-17=-285/0

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

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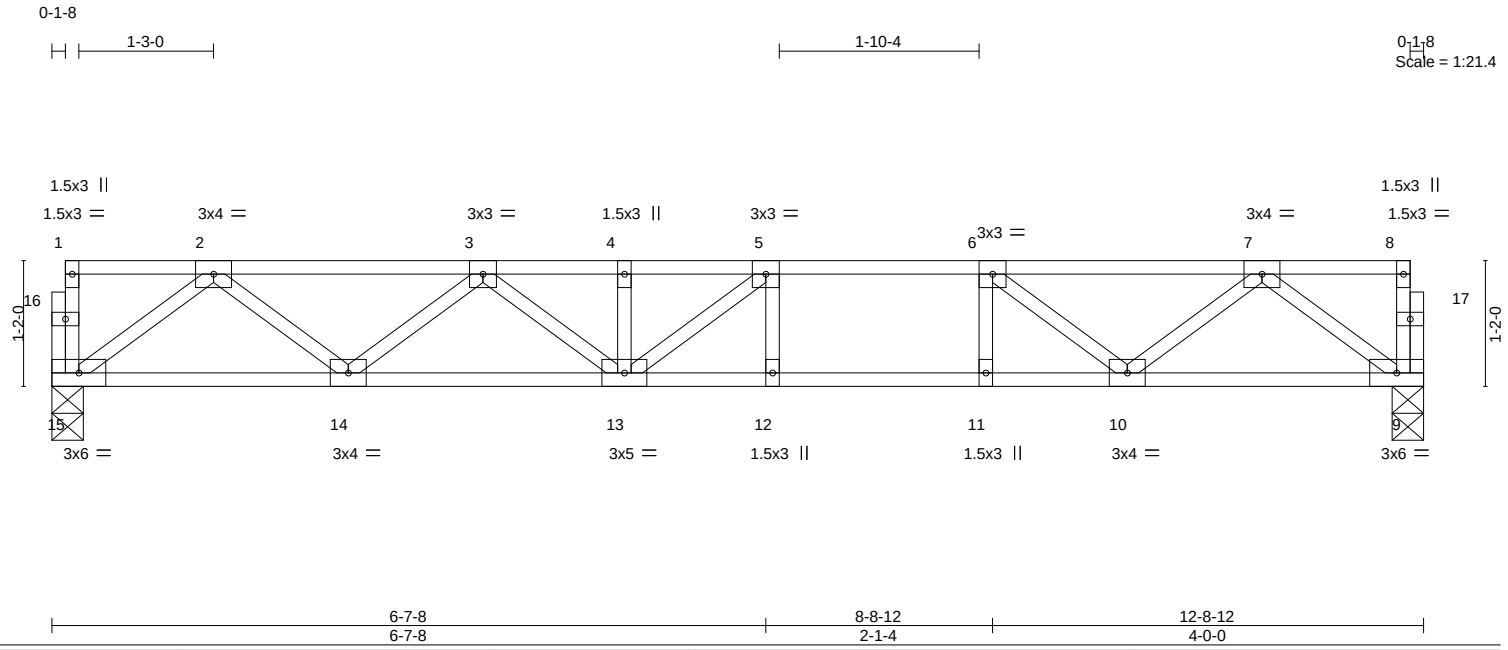
Job	Truss	Truss Type	Qty	Ply	BCTH-17
24095457F	F4	Floor	3	1	I68234531
					Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:53 2024 Page 1
ID:zSBW3Sup3LWSAdyRsYeX6hyeAY4-Lf1v?F5ZIKAYuhPtm2BvQhsGnNoSXMdY7bw7QIyd5na



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	0.66	Vert(LL)	-0.15	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.21	12-13	>703	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 65 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. (size) 15=0-3-8, 9=0-3-8
Max Grav 15=743(LC 1), 9=743(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1458/0, 3-4=-2208/0, 4-5=-2208/0, 5-6=-2109/0, 6-7=-1464/0
BOT CHORD 14-15=0/906, 13-14=0/1948, 12-13=0/2109, 11-12=0/2109, 10-11=0/2109, 9-10=0/883
WEBS 7-9=-1104/0, 2-15=-1135/0, 7-10=0/757, 2-14=0/718, 6-10=-824/0, 3-14=-638/0, 3-13=0/332, 5-13=-225/294, 6-11=0/252

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) 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	BCTH-17
24095457F	F3GR	Floor Girder	1	1	I68234532
					Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:52 2024 Page 1
ID:zSBW3Sup3LWSAdyRsYeX6hyeAY4-tTTXov4xX02hGXrgDLgguTK6AzW2orzOuxBatsyd5nb

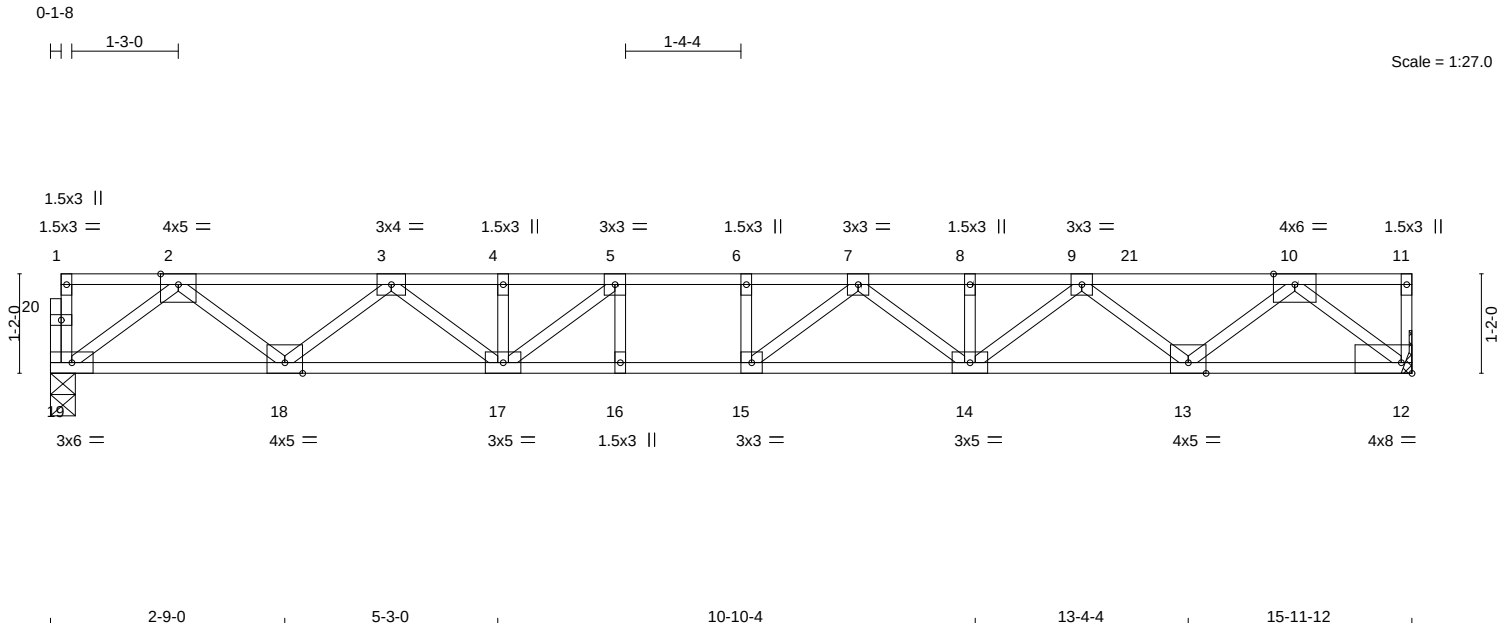

Plate Offsets (X,Y)-- [12:Edge,0-1-8]

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	0.59	Vert(LL)	-0.17	14-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.63	Vert(CT)	-0.34	14-15	>554	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.64	Horz(CT)	0.06	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 82 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP DSS(flat)
BOT CHORD 2x4 SP DSS(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) 19=0-3-8, 12=Mechanical
Max Grav 19=1044(LC 1), 12=1865(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2222/0, 3-4=-3648/0, 4-5=-3648/0, 5-6=-4266/0, 6-7=-4266/0, 7-8=-4184/0, 8-9=-4184/0, 9-10=-3056/0
BOT CHORD 18-19=0/1303, 17-18=0/3062, 16-17=0/4266, 15-16=0/4266, 14-15=0/4385, 13-14=0/3924, 12-13=0/2134
WEBS 10-12=-2725/0, 2-19=-1632/0, 10-13=0/1200, 2-18=0/1196, 9-13=-1129/0, 3-18=-1094/0, 9-14=0/333, 3-17=0/747, 7-14=-257/0, 5-17=-993/0, 7-15=-423/152

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Load case(s) 1, 2, 3, 4, 5, 6 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
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.
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: 12-19=-20, 1-21=-100, 11-21=-420(F=-320)
2) Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 12-19=-20, 1-21=-100, 11-21=-420(F=-320)
3) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 12-19=-20, 1-6=-100, 6-21=-20, 11-21=-340(F=-320)
4) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 12-19=-20, 1-5=-20, 5-21=-100, 11-21=-420(F=-320)

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Continued on page 2

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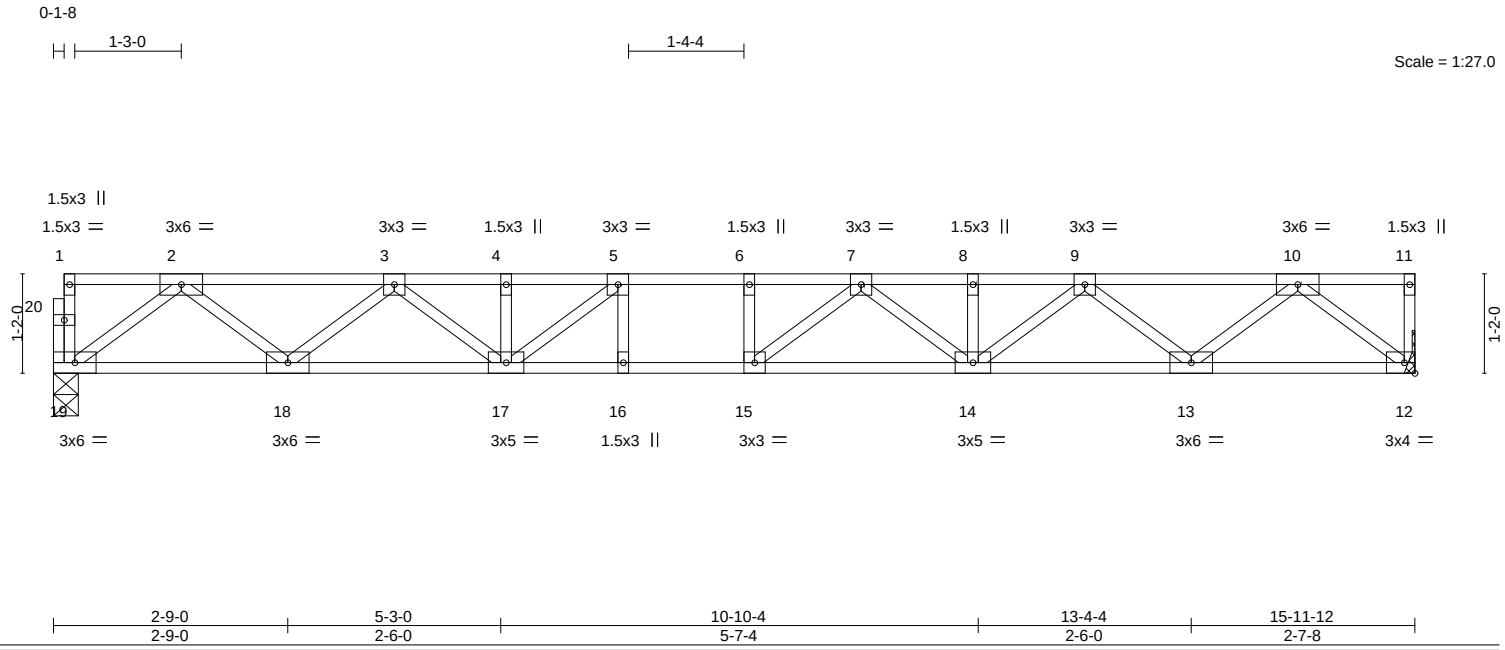
LOAD CASE(S) Standard

5) 3rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 12-19=-20, 1-6=-100, 6-21=-20, 11-21=-340(F=-320)

6) 4th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 12-19=-20, 1-5=-20, 5-21=-100, 11-21=-420(F=-320)

Job	Truss	Truss Type	Qty	Ply	BCTH-17
24095457F	F2	Floor	5	1	I68234533
					Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:52 2024 Page 1
ID:zSBW3Sup3LWSAdyRsYeX6hyeAY4-tTTXov4xX02hGXrgDLgguTK7UzTrouGOuxBatsyd5nb



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)	-0.21	14-15	>903	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.32	14-15	>595	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.06	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 82 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. (size) 19=0-3-8, 12=Mechanical
Max Grav 19=941(LC 1), 12=947(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1963/0, 3-4=-3153/0, 4-5=-3153/0, 5-6=-3545/0, 6-7=-3545/0, 7-8=-3152/0, 8-9=-3152/0, 9-10=-1921/0
BOT CHORD 18-19=0/1168, 17-18=0/2682, 16-17=0/3545, 15-16=0/3545, 14-15=0/3460, 13-14=0/2657, 12-13=0/1121
WEBS 10-12=-1431/0, 2-19=-1463/0, 10-13=0/1041, 2-18=0/1034, 9-13=-958/0, 3-18=-936/0, 9-14=0/631, 3-17=0/601, 7-14=-394/0, 5-17=-711/0, 7-15=-159/412

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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Job	Truss	Truss Type	Qty	Ply	BCTH-17
24095457F	F1	Floor	1	1	I68234534
					Job Reference (optional)

The Building Center, Gastonia, NC - 28052, 8.820 s Aug 30 2024 MiTek Industries, Inc. Mon Sep 16 09:15:51 2024 Page 1
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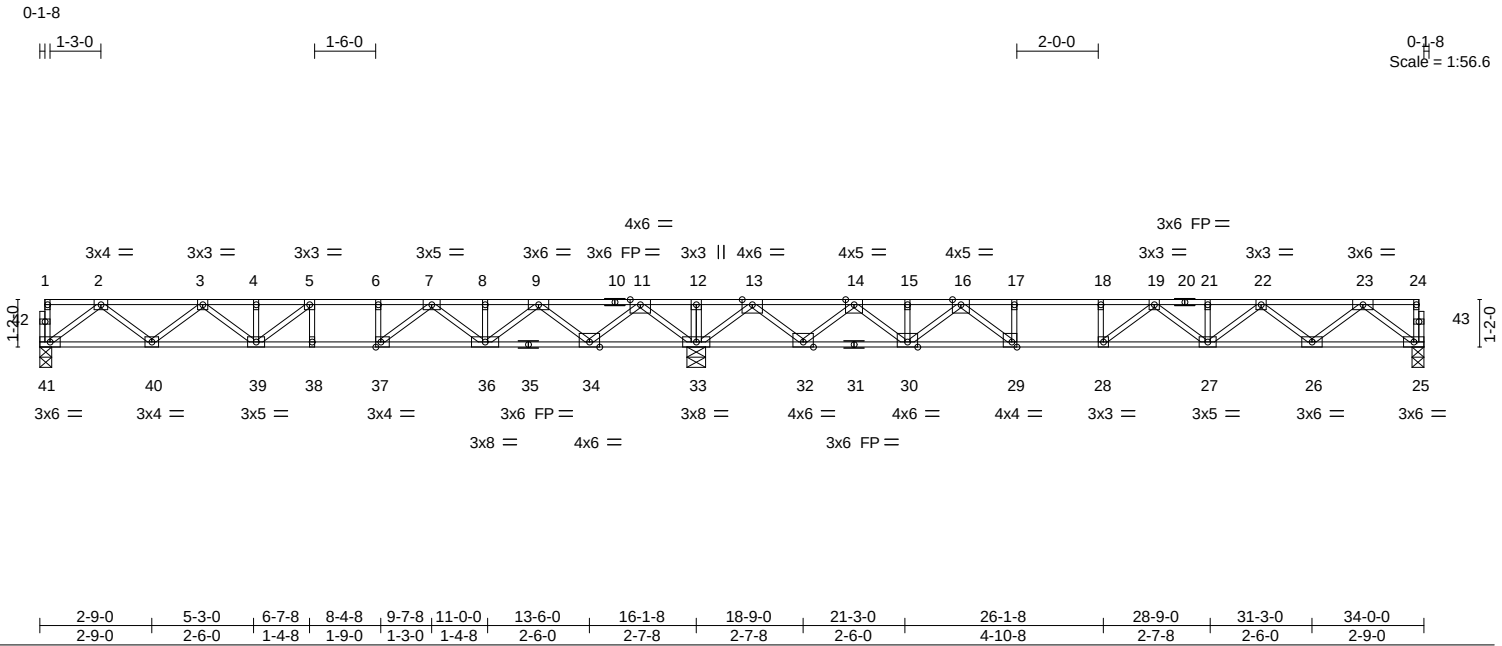

2-9-0	5-3-0	6-7-8	8-4-8	9-7-8	11-0-0	13-6-0	16-1-8	18-9-0	21-3-0	26-1-8	28-9-0	31-3-0	34-0-0
2-9-0	2-6-0	1-4-8	1-9-0	1-3-0	1-4-8	2-6-0	2-7-8	2-7-8	2-6-0	4-10-8	2-7-8	2-6-0	2-9-0

Plate Offsets (X,Y)-- [29:0-1-8,Edge], [37:0-1-8,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	0.79	Vert(LL)	-0.23	27-28	>915	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.34	27-28	>622	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.05	25	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 172 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD 2x4 SP No.2(flat) *Except* 10-20: 2x4 SP DSS(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 25-31: 2x4 SP DSS(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. (size) 41=0-3-8, 33=0-5-8, 25=0-3-8
Max Grav 41=804(LC 3), 33=2454(LC 1), 25=922(LC 4)

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

TOP CHORD 2-3=-1615/0, 3-4=-2498/0, 4-5=-2498/0, 5-6=-2575/0, 6-7=-2575/0, 7-8=-1683/489, 8-9=-1683/489, 9-11=-78/1262, 11-12=0/3418, 12-13=0/3418, 13-14=-278/1186, 14-15=-2103/370, 15-16=-2103/370, 16-17=-3328/0, 17-18=-3328/0, 18-19=-3328/0, 19-21=-3082/0, 21-22=-3082/0, 22-23=-1908/0

BOT CHORD 40-41=0/988, 39-40=0/2175, 38-39=0/2575, 37-38=0/2575, 36-37=-200/2189, 34-36=-860/992, 33-34=-1961/0, 32-33=-1856/0, 30-32=-764/1298, 29-30=-57/2726, 28-29=0/3328, 27-28=0/3348, 26-27=0/2619, 25-26=0/1140

WEBS 2-41=-1237/0, 11-33=-1829/0, 2-40=0/817, 11-34=0/1388, 3-40=-728/0, 9-34=-1302/0, 3-39=0/413, 9-36=0/1003, 5-39=-144/425, 7-36=-774/0, 23-25=-1428/0, 13-33=-1960/0, 23-26=0/1000, 13-32=0/1521, 22-26=-925/0, 14-32=-1428/0, 22-27=0/591, 14-30=0/1133, 19-27=-339/53, 16-30=-908/0, 19-28=-491/147, 16-29=0/1164, 17-29=-498/0, 6-37=-350/0, 7-37=0/880

NOTES-

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 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.
4) CAUTION, Do not erect truss backwards.

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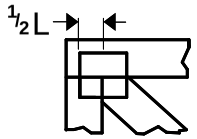
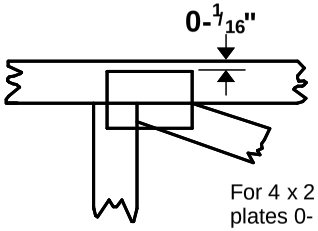
Symbols

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.

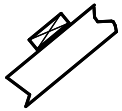
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

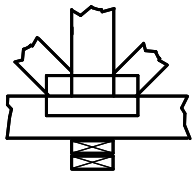
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

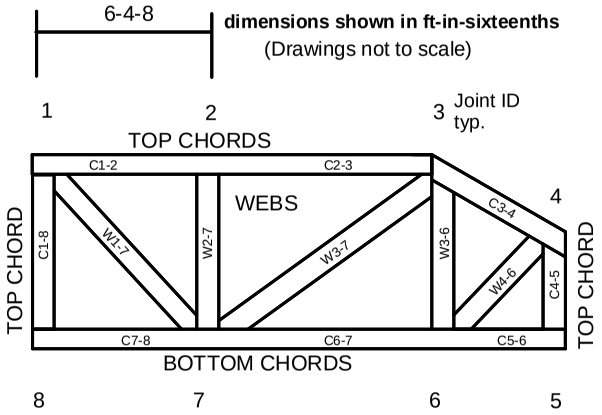


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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