ENGINEERING BY
TRENCO
A MiTek Affiliate

RE: 27058-27058A
79 South Creek

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Signature Homes -2307 Project Name: 27058-27058A
Lot/Block: Model: MAGNOLIA 3CAR RH
Address: 40 Thunder Valley CT Subdivision:
City: Lillington 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 8.5
Wind Code: N/A Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 8 individual, dated Truss Design Drawings and 0 Additional Drawings.

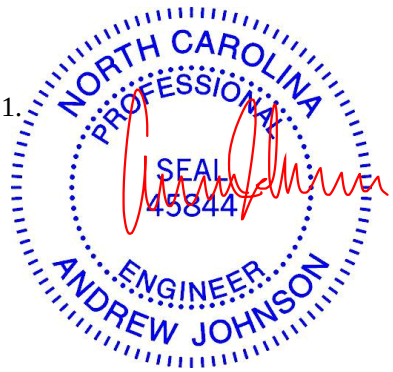
No.	Seal#	Truss Name	Date
1	I46525186	F1	6/16/2021
2	I46525187	F2	6/16/2021
3	I46525188	F3	6/16/2021
4	I46525189	F4	6/16/2021
5	I46525190	F5	6/16/2021
6	I46525191	F5A	6/16/2021
7	I46525192	F6	6/16/2021
8	I46525193	F7	6/16/2021

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Truss Design Engineer's Name: Johnson, Andrew

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

North Carolina COA: C-0844



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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

June 16, 2021

Johnson, Andrew

Job	Truss	Truss Type	Qty	Ply	79 South Creek
27058-27058A	F1	Floor Supported Gable	1	1	I46525186
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.510 s Jun 1 2021 MiTek Industries, Inc. Thu Jun 10 14:56:44 2021 Page 1
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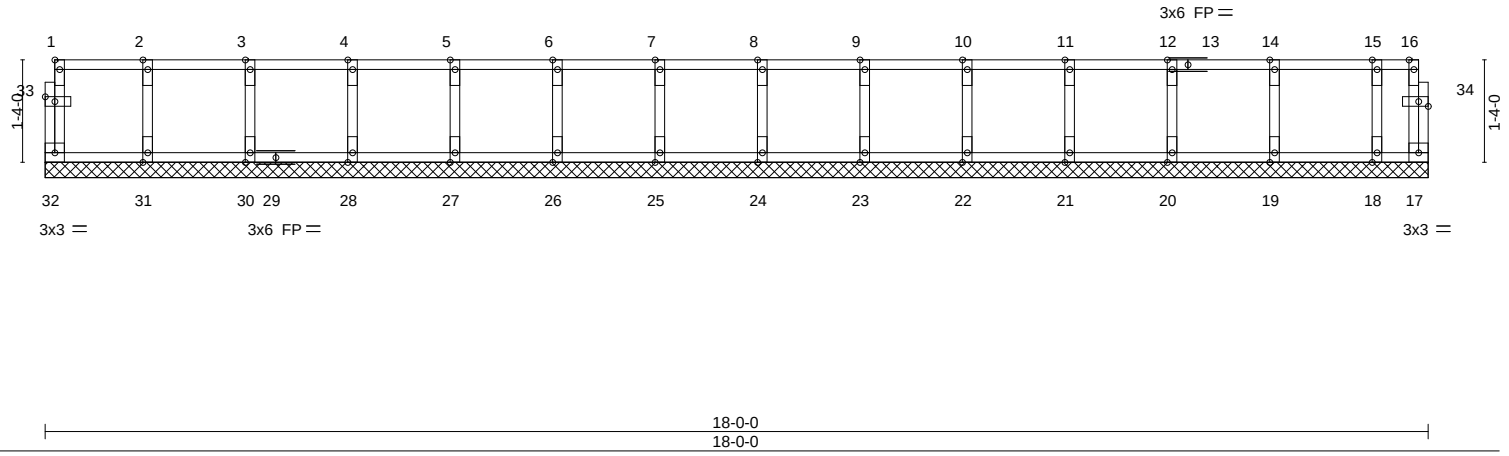

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [33:0-1-8,0-0-12], [34:0-1-8,0-0-12]

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	197/144
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	17	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-R							Weight: 80 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2(flat)
BOT CHORD	2x4 SP No.2 or 2x4 SPF 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 18-0-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 32, 17, 31, 30, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18

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

NOTES-
1) All plates are 1.5x4 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) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.

June 11,2021

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TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	79 South Creek
27058-27058A	F2	Floor	4	1	I46525187
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.510 s Jun 1 2021 MiTek Industries, Inc. Thu Jun 10 14:56:45 2021 Page 1
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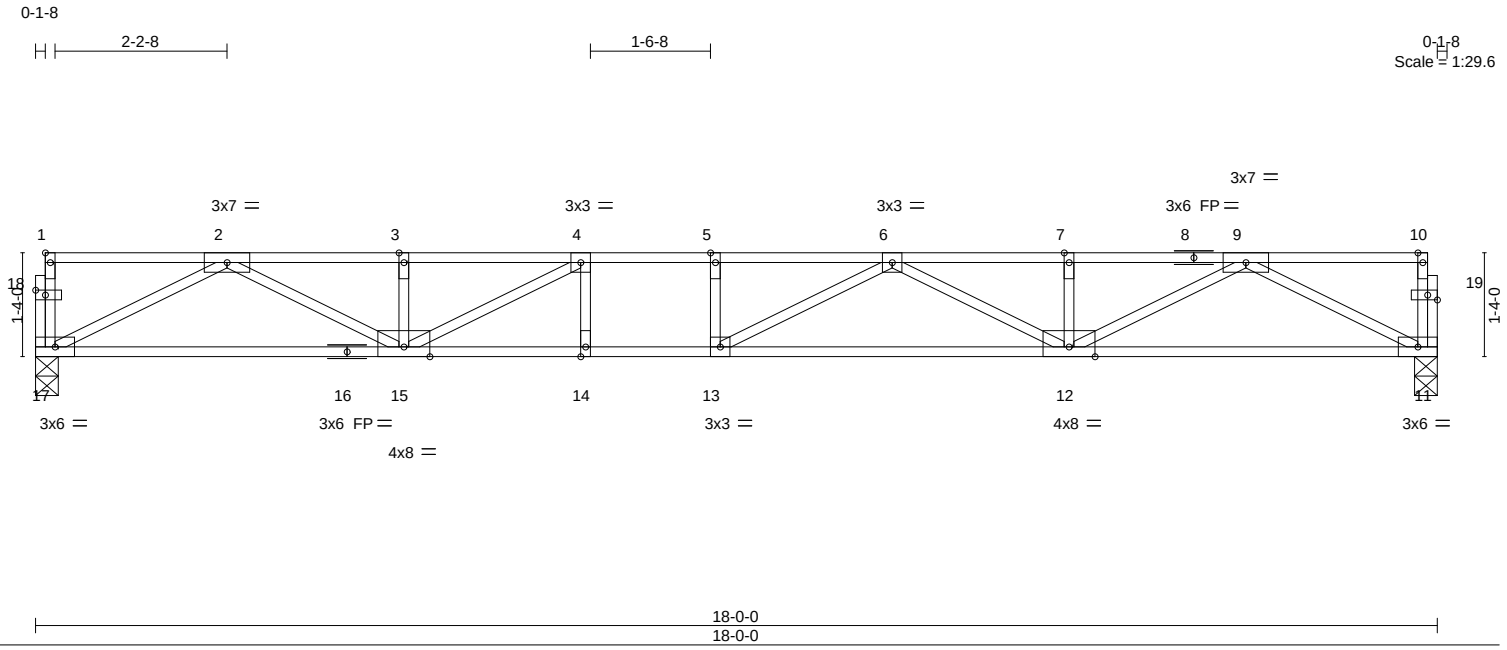


Plate Offsets (X,Y)-- [1:Edge,0-0-12], [18:0-1-8,0-0-12], [19:0-1-8,0-0-12]

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	0.86	Vert(LL)	-0.33	12-13	>655	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.46	12-13	>465	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 91 lb	FT = 20%F, 11%E

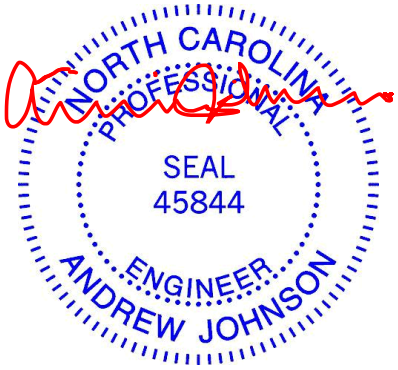
LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 17=0-3-8, 11=0-3-8
Max Grav 17=970(LC 1), 11=970(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2775/0, 3-4=-2775/0, 4-5=-3521/0, 5-6=-3521/0, 6-7=-2798/0, 7-9=-2798/0
BOT CHORD 15-17=0/1660, 14-15=0/3521, 13-14=0/3521, 12-13=0/3422, 11-12=0/1668
WEBS 9-11=-1873/0, 2-17=-1864/0, 9-12=0/1280, 2-15=0/1263, 6-12=-707/0, 4-15=-1009/0, 6-13=-201/483

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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	79 South Creek
27058-27058A	F3	Floor	9	1	I46525188
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.510 s Jun 1 2021 MiTek Industries, Inc. Thu Jun 10 14:56:46 2021 Page 1
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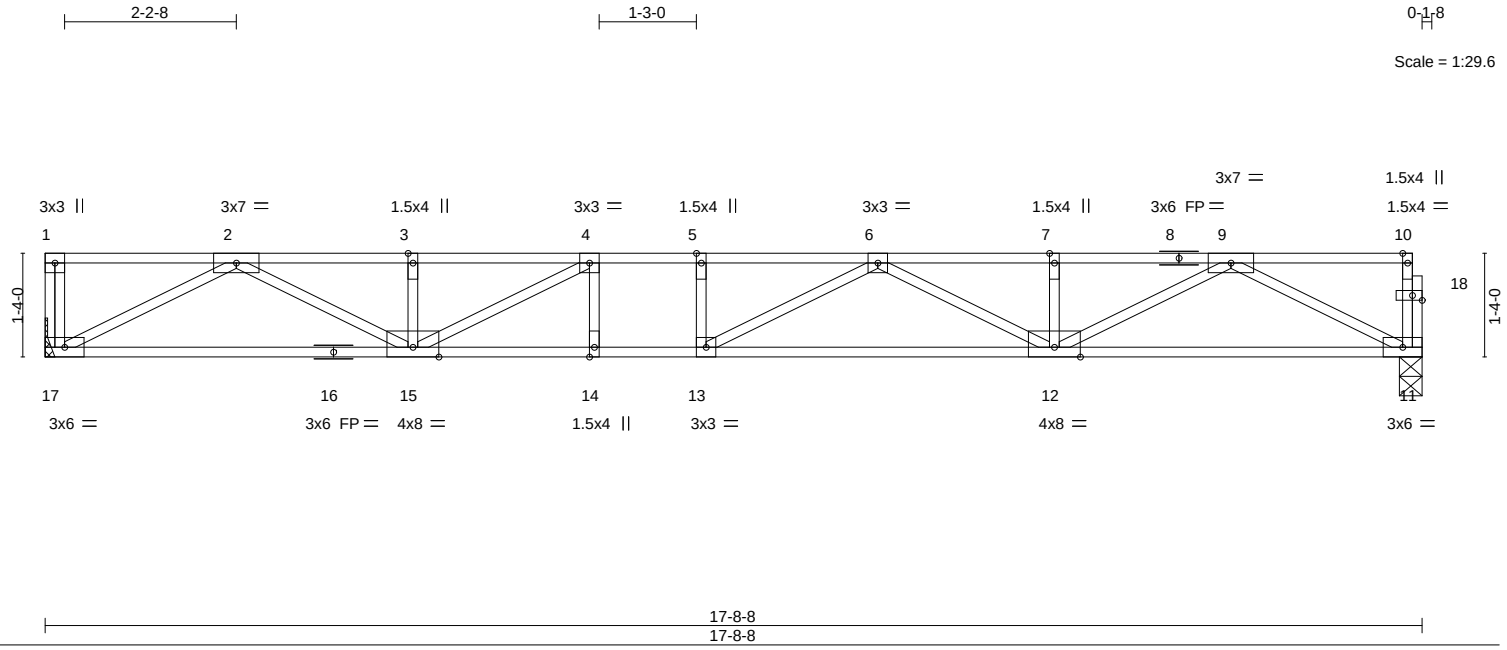


Plate Offsets (X,Y)-- [18:0-1-8,0-0-12]

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	0.77	Vert(LL)	-0.28	12-13	>752	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.40	12-13	>526	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 91 lb	FT = 20%F, 11%E

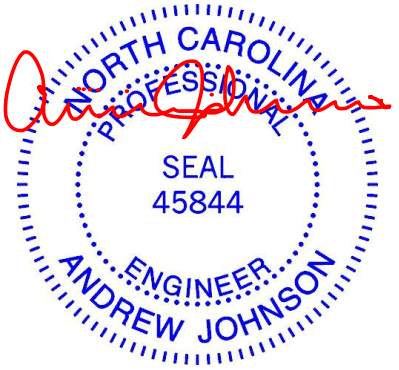
LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 17=Mechanical, 11=0-3-8
Max Grav 17=960(LC 1), 11=954(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2718/0, 3-4=-2718/0, 4-5=-3412/0, 5-6=-3412/0, 6-7=-2736/0, 7-9=-2736/0
BOT CHORD 15-17=0/1631, 14-15=0/3412, 13-14=0/3412, 12-13=0/3332, 11-12=0/1637
WEBS 9-11=-1838/0, 2-17=-1837/0, 9-12=0/1245, 2-15=0/1231, 6-12=-675/0, 4-15=-937/0, 6-13=-215/445

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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	79 South Creek
27058-27058A	F4	Floor Supported Gable	1	1	I46525189
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.510 s Jun 1 2021 MiTek Industries, Inc. Thu Jun 10 14:56:47 2021 Page 1
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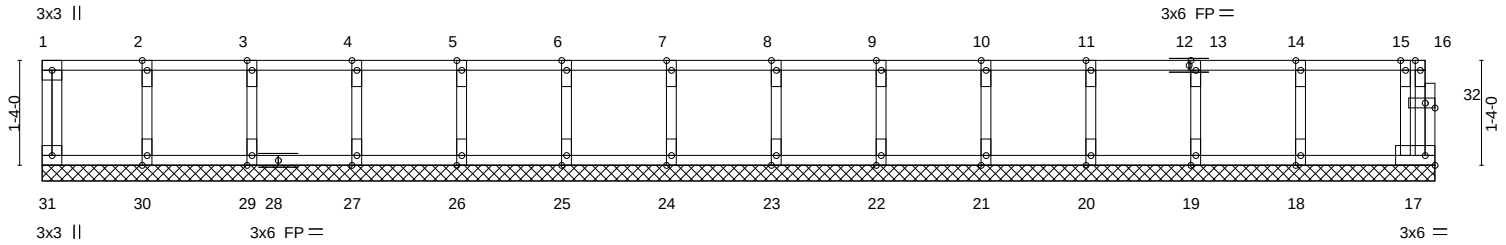

Plate Offsets (X,Y)-- [32:0-1-8,0-0-12]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	17	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-R							Weight: 80 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2(flat)
BOT CHORD	2x4 SP No.2 or 2x4 SPF 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 17-8-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 31, 17, 30, 29, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18

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

NOTES-

1) All plates are 1.5x4 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) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.
7) CAUTION, Do not erect truss backwards.

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Job	Truss	Truss Type	Qty	Ply	79 South Creek
27058-27058A	F5	Floor	1	1	I46525190
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.510 s Jun 1 2021 MiTek Industries, Inc. Thu Jun 10 14:56:48 2021 Page 1
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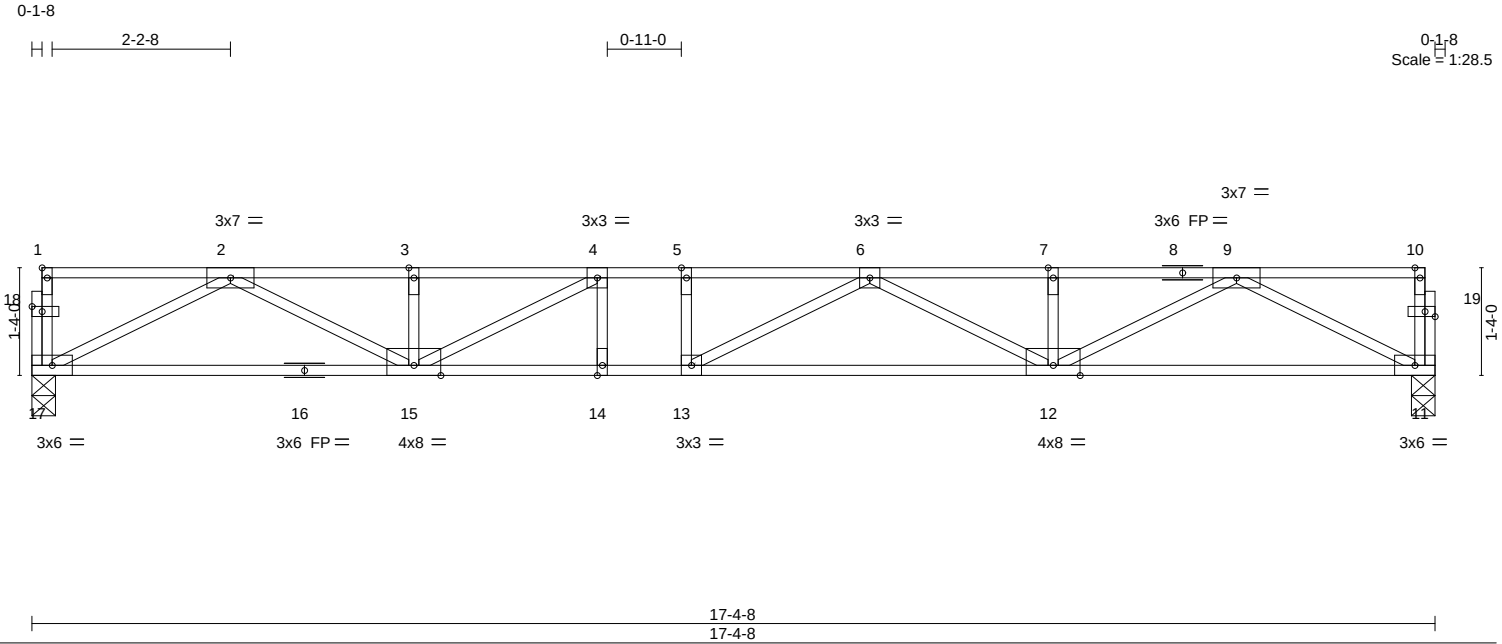


Plate Offsets (X,Y)-- [1:Edge,0-0-12], [18:0-1-8,0-0-12], [19:0-1-8,0-0-12]

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	0.65	Vert(LL)	-0.25	12-13	>833	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.35	12-13	>581	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 89 lb	FT = 20%F, 11%E

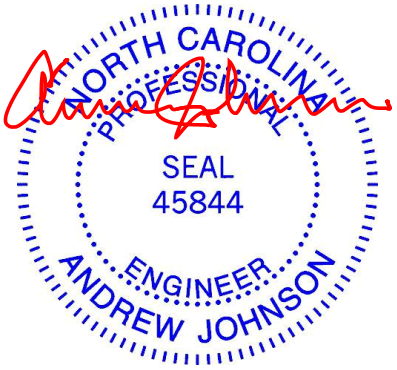
LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 17=0-3-8, 11=0-3-8
Max Grav 17=936(LC 1), 11=936(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2652/0, 3-4=-2652/0, 4-5=-3288/0, 5-6=-3288/0, 6-7=-2665/0, 7-9=-2665/0
BOT CHORD 15-17=0/1594, 14-15=0/3288, 13-14=0/3288, 12-13=0/3229, 11-12=0/1600
WEBS 9-11=-1797/0, 2-17=-1790/0, 9-12=0/1206, 2-15=0/1199, 6-12=-639/0, 4-15=-855/0, 6-13=-229/402

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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	79 South Creek
27058-27058A	F5A	Floor	1	1	I46525191
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.510 s Jun 1 2021 MiTek Industries, Inc. Thu Jun 10 14:56:49 2021 Page 1
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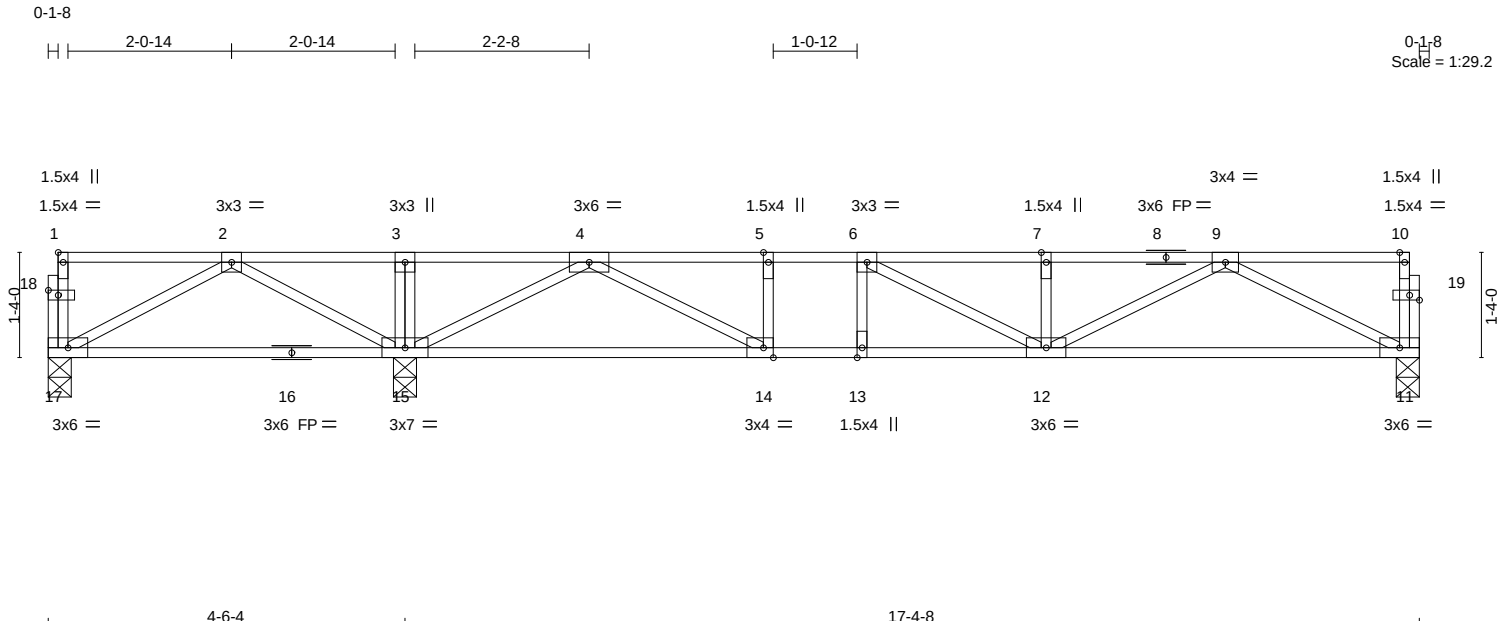

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [14:0-1-8,Edge], [18:0-1-8,0-0-12], [19:0-1-8,0-0-12]

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	0.58	Vert(LL)	-0.12	12-13	>999	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.15	12-13	>991	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.02	11	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 91 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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, Except: 6-0-0 oc bracing: 15-17.

REACTIONS. (size) 17=0-3-8, 15=0-3-8, 11=0-3-8
Max Uplift 17=-142(LC 4)
Max Grav 17=163(LC 3), 15=1232(LC 1), 11=622(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=0/727, 3-4=0/728, 4-5=-1333/0, 5-6=-1333/0, 6-7=-1498/0, 7-9=-1498/0
BOT CHORD 15-17=-327/119, 14-15=0/519, 13-14=0/1333, 12-13=0/1333, 11-12=0/992
WEBS 2-17=-131/374, 2-15=-660/0, 9-11=-1112/0, 4-15=-1382/0, 9-12=0/573, 4-14=0/934, 7-12=-285/0, 5-14=-308/0, 6-12=-85/293

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
3) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. This connection is for uplift only and does not consider lateral forces.
4) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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	79 South Creek
27058-27058A	F6	Floor	1	1	I46525192
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.510 s Jun 1 2021 MiTek Industries, Inc. Thu Jun 10 14:56:50 2021 Page 1
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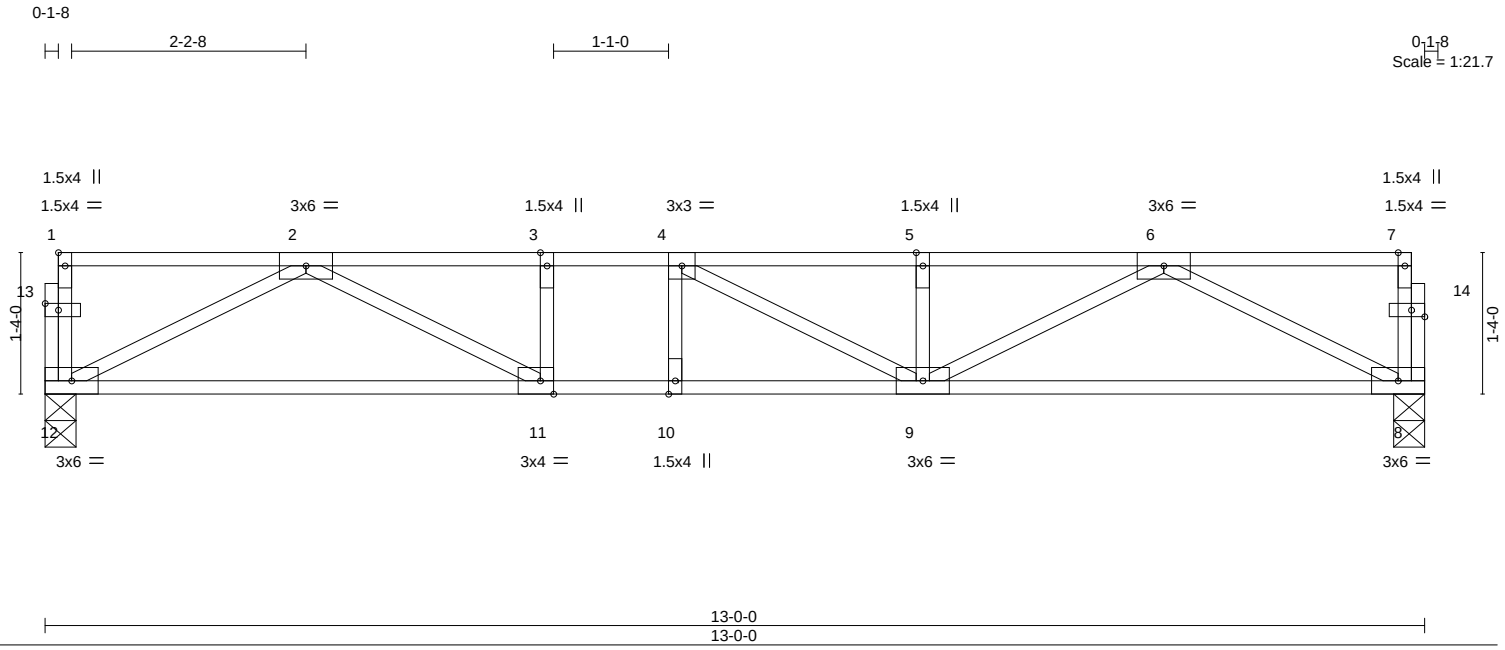


Plate Offsets (X,Y)-- [1:Edge,0-0-12], [11:0-1-8,Edge], [13:0-1-8,0-0-12], [14:0-1-8,0-0-12]

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	0.52	Vert(LL)	-0.12	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.82	Vert(CT)	-0.15	9-10	>988	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.03	8	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 67 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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) 12=0-3-8, 8=0-3-8
Max Grav 12=695(LC 1), 8=695(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1788/0, 3-4=-1788/0, 4-5=-1766/0, 5-6=-1766/0
BOT CHORD 11-12=0/1137, 10-11=0/1788, 9-10=0/1788, 8-9=0/1132
WEBS 6-8=-1269/0, 2-12=-1275/0, 6-9=0/718, 2-11=0/753, 5-9=-276/0, 4-9=-289/178

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

June 11,2021

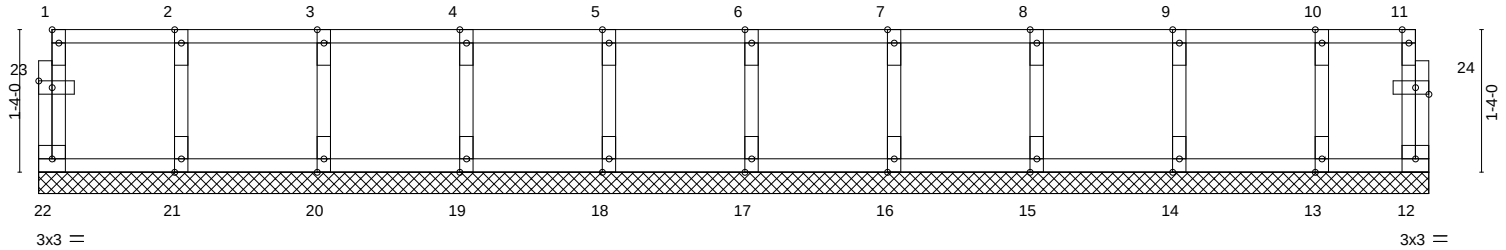
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	79 South Creek
27058-27058A	F7	Floor Supported Gable	1	1	I46525193
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.510 s Jun 1 2021 MiTek Industries, Inc. Thu Jun 10 14:56:51 2021 Page 1
ID:xRVNaXkOZJH7GTJrWeYcDvzCLCu-ytDASHDXFn8CZ29yGpjM6ny6r?uAzQki7BcfZ9z7f3w

0-1-8 0-1-8

Scale = 1:21.5



13-0-0
13-0-0

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [23:0-1-8,0-0-12], [24:0-1-8,0-0-12]

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	197/144
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	12	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 59 lb	FT = 20%F, 11%E

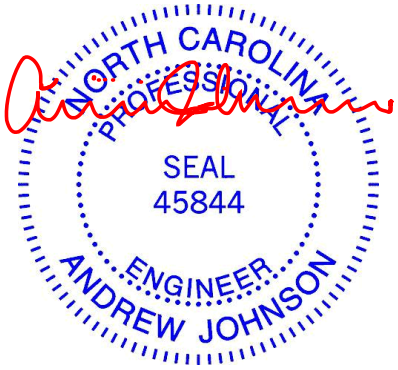
LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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 13-0-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 20, 19, 18, 17, 16, 15, 14, 13

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

NOTES-
1) All plates are 1.5x4 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) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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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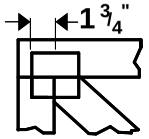
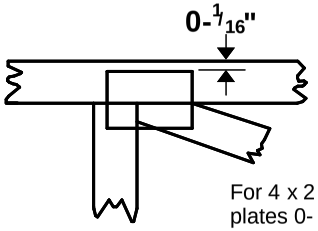
Symbols

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.

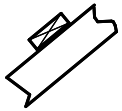
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

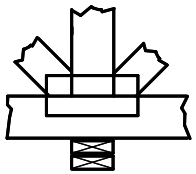
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

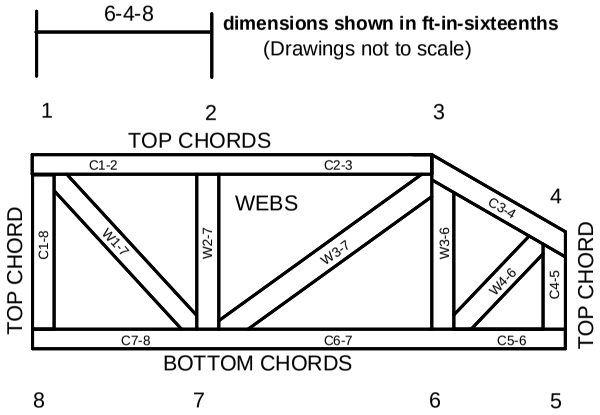


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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