ENGINEERING BY TRENCO
A MiTek Affiliate

RE: 30926A
21 PRINCE PLACE - FLOOR

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: 30926A
Lot/Block: Model:
Address: Subdivision:
City: State:

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 18 individual, dated Truss Design Drawings and 0 Additional Drawings.

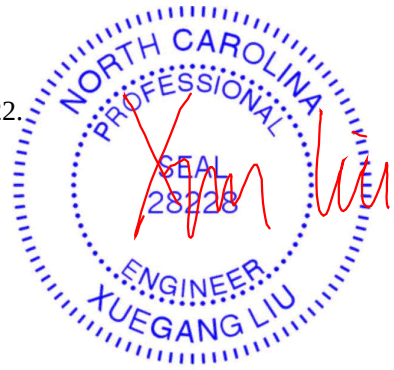
No.	Seal#	Truss Name	Date
1	I48727892	F1	11/9/2021
2	I48727893	F1G	11/9/2021
3	I48727894	F2	11/9/2021
4	I48727895	F2G	11/9/2021
5	I48727896	F3	11/9/2021
6	I48727897	F3G	11/9/2021
7	I48727898	F4	11/9/2021
8	I48727899	F4G	11/9/2021
9	I48727900	F5	11/9/2021
10	I48727901	F5G	11/9/2021
11	I48727902	F6	11/9/2021
12	I48727903	F8	11/9/2021
13	I48727904	F10	11/9/2021
14	I48727905	KW1	11/9/2021
15	I48727906	KW2	11/9/2021
16	I48727907	KW3	11/9/2021
17	I48727908	KW4	11/9/2021
18	I48727909	KW5	11/9/2021

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: Liu, Xuegang

My license renewal date for the state of North Carolina is December 31, 2022.

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.

November 09, 2021

Liu, Xuegang

Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	F1	Floor	2	1	I48727892
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:19 2021 Page 1
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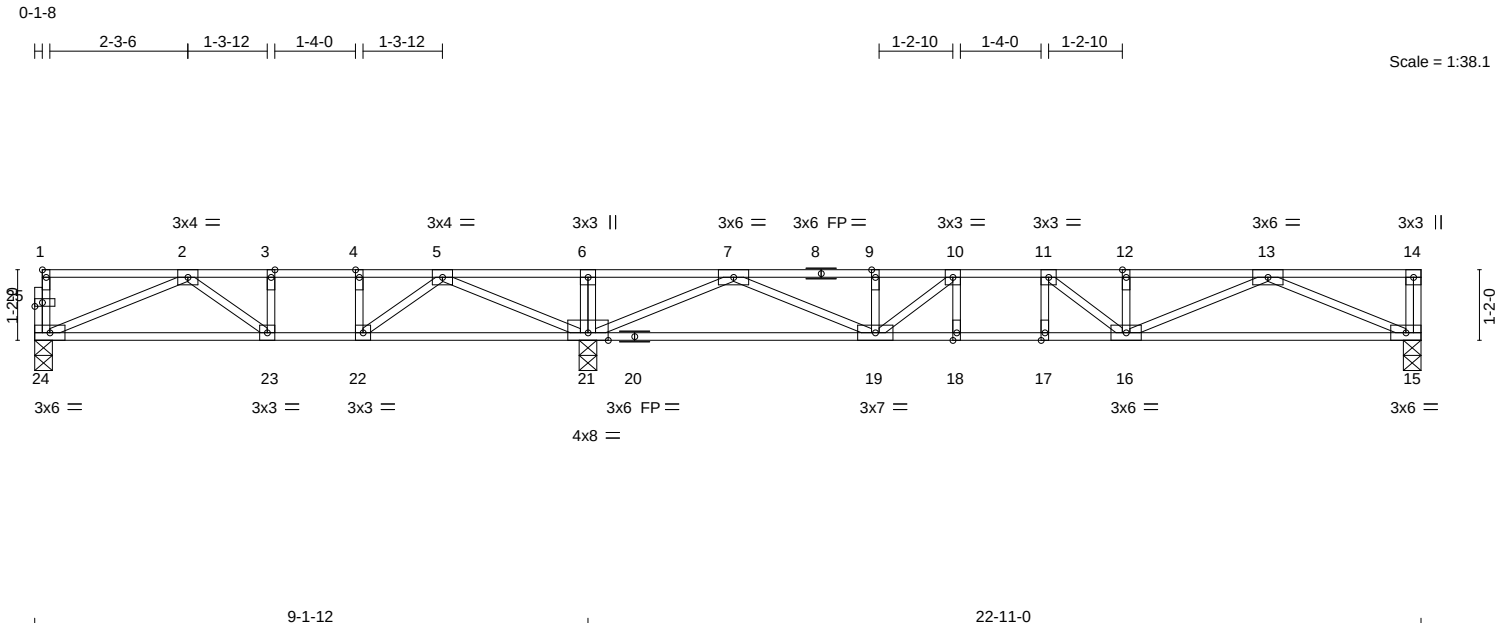

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [25:0-1-8,0-0-12]

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)	-0.12	17	>999	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.76	Vert(CT)	-0.16	17	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.03	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 115 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 6-0-0 oc bracing.

REACTIONS. (size) 24=0-3-8, 21=0-3-8, 15=0-3-8
Max Grav 24=428(LC 3), 21=1485(LC 1), 15=671(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-791/220, 3-4=-791/220, 4-5=-791/220, 5-6=0/1203, 6-7=0/1203, 7-9=-1581/0, 9-10=-1581/0, 10-11=-1914/0, 11-12=-1914/0, 12-13=-1914/0
BOT CHORD 23-24=-51/727, 22-23=-220/791, 21-22=-532/475, 19-21=-63/608, 18-19=0/1914, 17-18=0/1914, 16-17=0/1914, 15-16=0/1282
WEBS 6-21=-273/0, 2-24=-786/57, 5-21=-1214/0, 5-22=0/659, 4-22=-310/0, 7-21=-1742/0, 13-15=-1397/0, 7-19=0/1116, 13-16=0/692, 10-19=-601/0

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) All plates are 1.5x4 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	21 PRINCE PLACE - FLOOR
30926A	F1G	Floor Girder	1	1	I48727893
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:21 2021 Page 1
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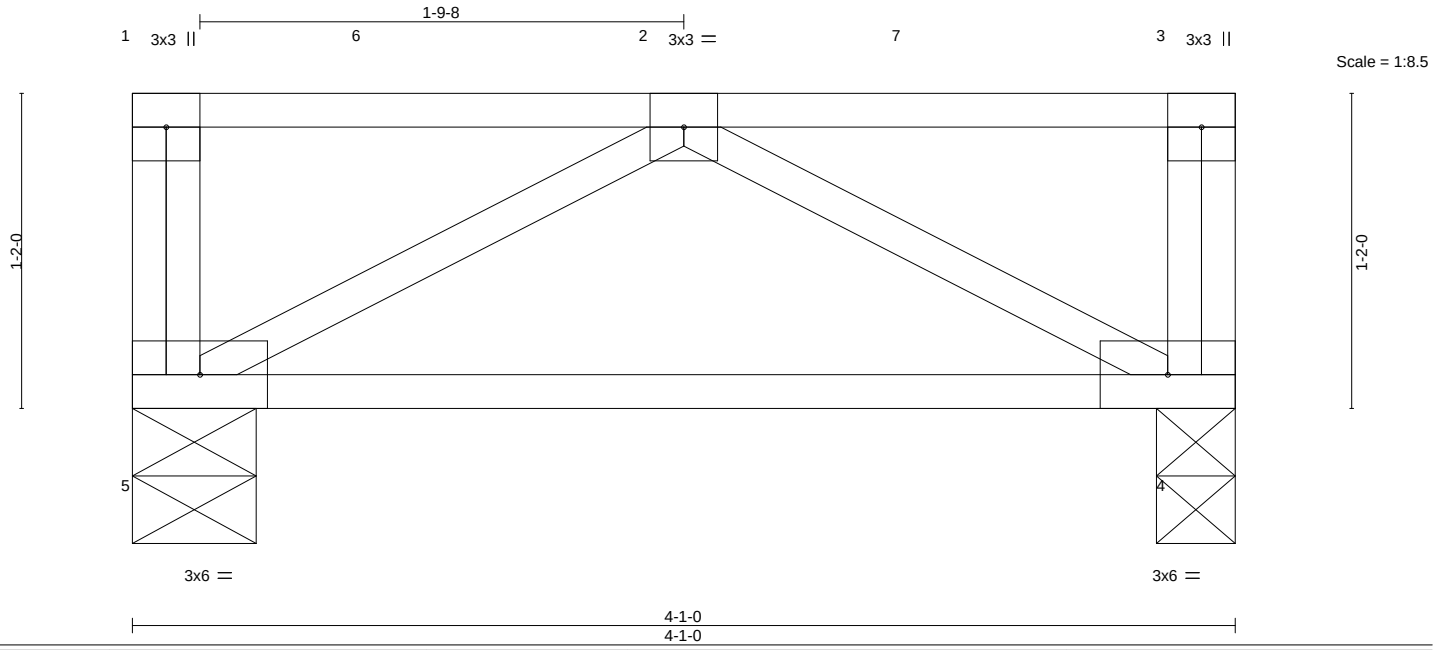

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.50	Vert(LL)	0.00	5	****	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.25	Vert(CT)	-0.04	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 24 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 4-1-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-5-8, 4=0-3-8
Max Grav 5=337(LC 1), 4=326(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 4-5=0/364
WEBS 2-5=-415/0, 2-4=-415/0

NOTES-
1) 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.
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.
3) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 124 lb down at 0-11-12, and 118 lb down at 2-11-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
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: 4-5=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 6=-124(B) 7=-118(B)

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Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	F2	Floor	3	1	I48727894
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:21 2021 Page 1
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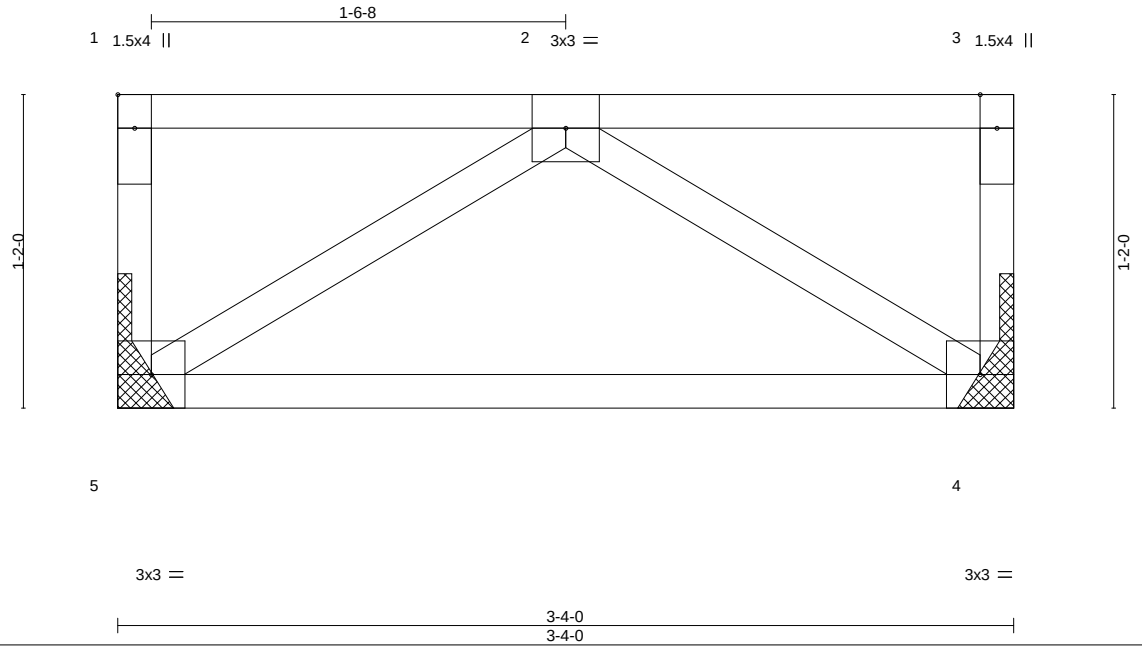

Plate Offsets (X,Y)-- [1:Edge,0-0-12]

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	0.15	Vert(LL)	0.00	5	****	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.13	Vert(CT)	-0.02	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-P							Weight: 18 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 3-4-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 4=Mechanical
Max Grav 5=176(LC 1), 4=176(LC 1)

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

NOTES-
1) 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.
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.

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Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	F2G	Floor Girder	1	1	I48727895
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:22 2021 Page 1
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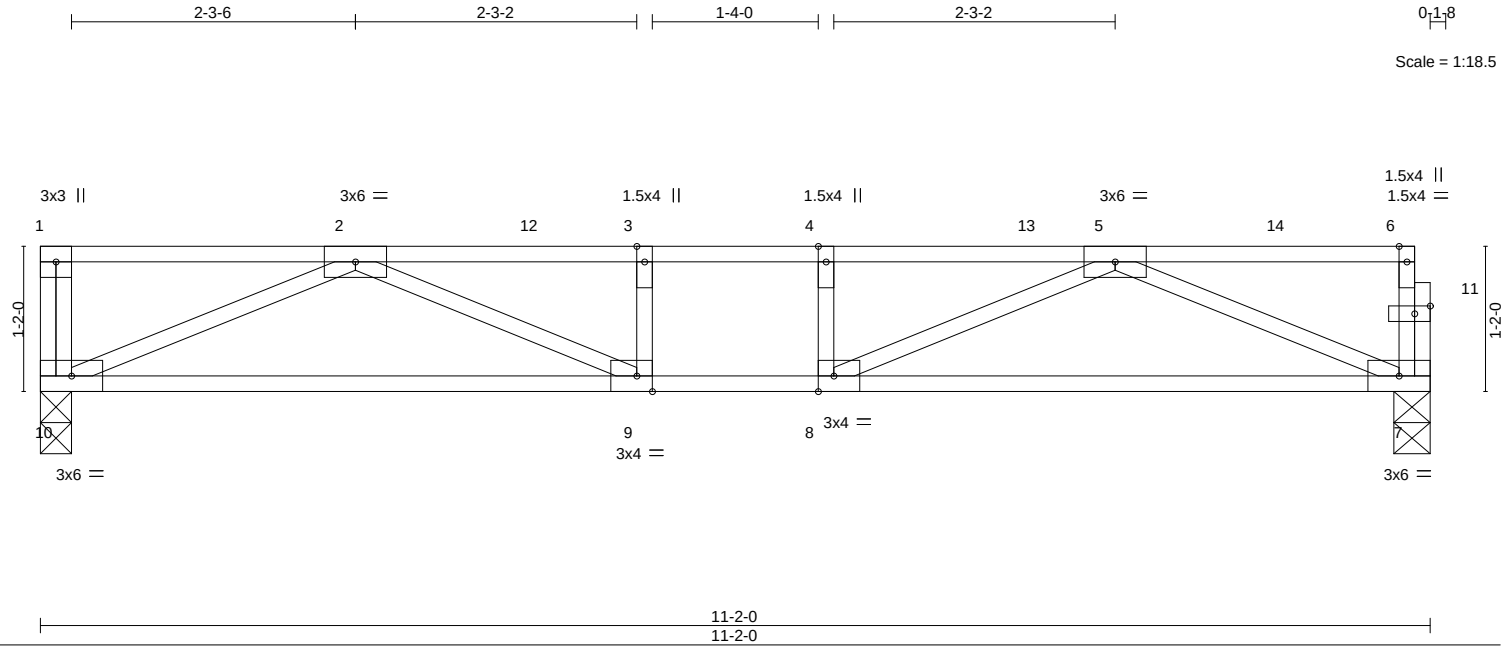

Plate Offsets (X,Y)-- [8:0-1-8,Edge], [9:0-1-8,Edge], [11:0-1-8,0-0-12]

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	0.81	Vert(LL)	-0.09	7-8	>999	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.81	Vert(CT)	-0.18	9-10	>747	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.45	Horz(CT)	0.03	7	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 56 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(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) 10=0-3-0, 7=0-3-8
Max Grav 10=786(LC 1), 7=833(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2278/0, 3-4=-2278/0, 4-5=-2278/0
BOT CHORD 9-10=0/1565, 8-9=0/2278, 7-8=0/1588
WEBS 2-10=-1706/0, 5-7=-1722/0, 2-9=0/890, 5-8=0/793, 3-9=-325/0, 4-8=-261/0

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) 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) 266 lb down at 4-0-4, 105 lb down at 6-0-4, and 156 lb down at 8-0-4, and 157 lb down at 10-0-4 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: 7-10=-10, 1-6=-100
Concentrated Loads (lb)
Vert: 4=-76(F) 12=-193(F) 13=-76(F) 14=-79(F)

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Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	F3	Floor	2	1	I48727896
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:22 2021 Page 1
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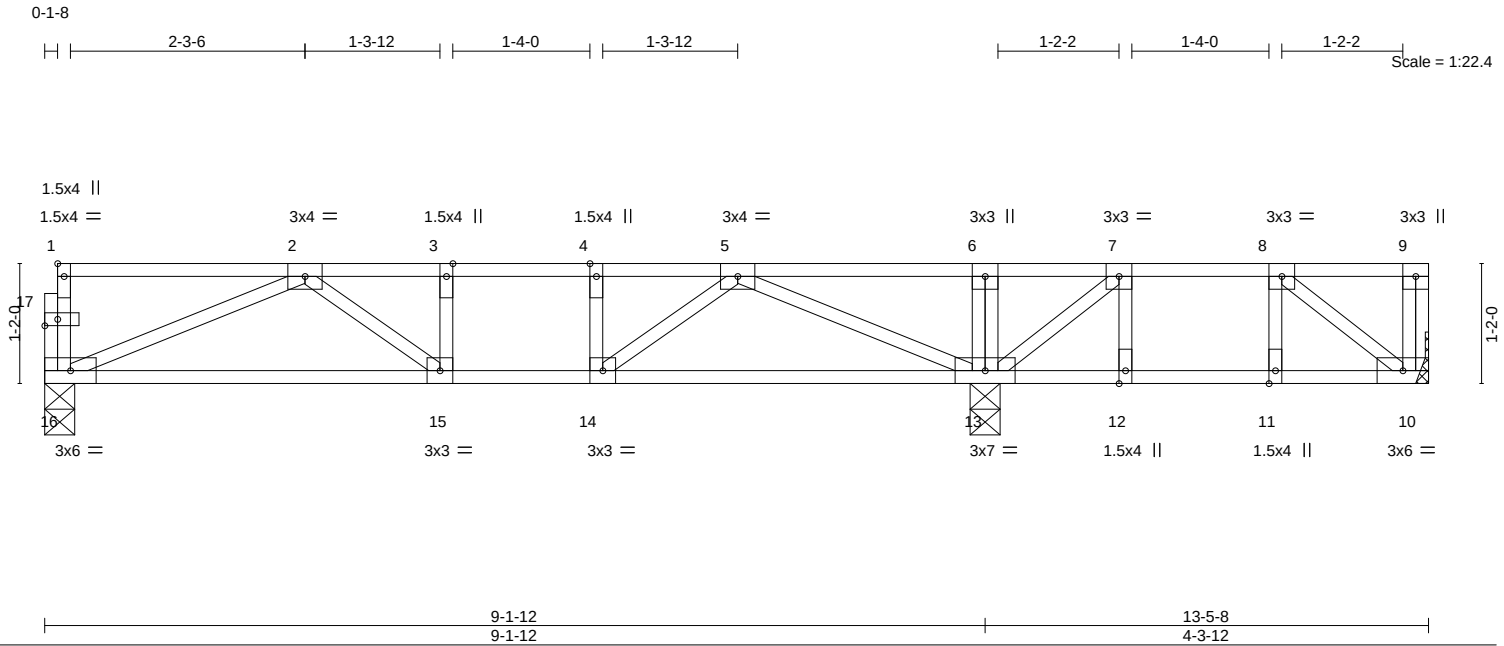

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [17:0-1-8,0-0-12]

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	0.30	Vert(LL)	-0.04	15-16	>999	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.34	Vert(CT)	-0.07	15-16	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.01	10	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 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 6-0-0 oc bracing.

REACTIONS. (size) 16=0-3-8, 10=Mechanical, 13=0-3-8
Max Grav 16=473(LC 10), 10=217(LC 4), 13=796(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-986/0, 3-4=-986/0, 4-5=-986/0
BOT CHORD 15-16=0/833, 14-15=0/986, 13-14=0/758
WEBS 2-16=-901/0, 5-13=-950/0, 2-15=0/281, 5-14=0/375, 7-13=-347/0

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) 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	21 PRINCE PLACE - FLOOR
30926A	F3G	Floor Girder	1	1	I48727897
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:23 2021 Page 1
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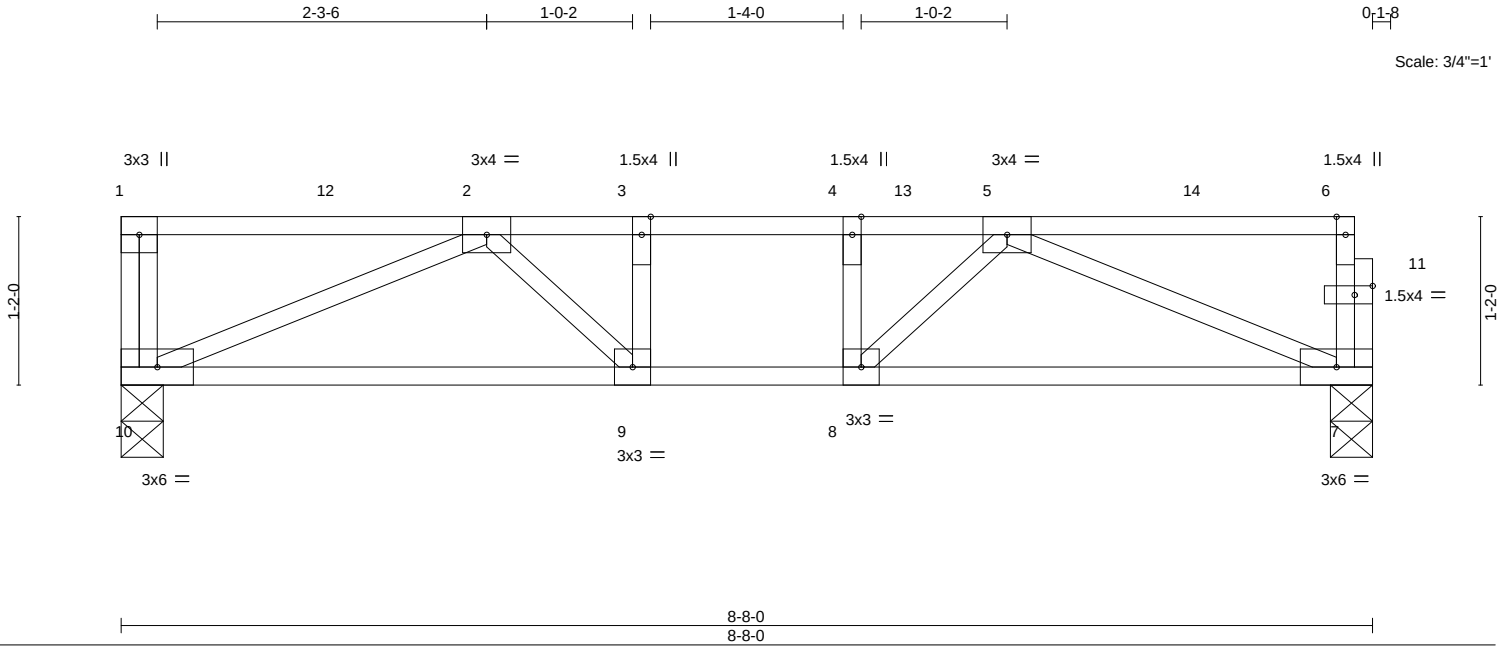

Plate Offsets (X,Y)-- [11:0-1-8,0-0-12]

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	0.90	Vert(LL)	-0.04	8	>999	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.46	Vert(CT)	-0.06	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.02	7	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 45 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) 10=0-3-8, 7=0-3-8
Max Grav 10=706(LC 1), 7=638(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1317/0, 3-4=-1317/0, 4-5=-1317/0
BOT CHORD 9-10=0/1231, 8-9=0/1317, 7-8=0/1135
WEBS 2-10=-1342/0, 5-7=-1228/0, 5-8=0/326

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) 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) 273 lb down at 1-6-4, 120 lb down at 3-6-4, and 135 lb down at 5-6-4, and 157 lb down at 7-6-4 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: 7-10=-10, 1-6=-100
Concentrated Loads (lb)
Vert: 3=-76(B) 12=-193(B) 13=-76(B) 14=-79(B)

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Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	F4	Floor	2	1	I48727898
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:24 2021 Page 1
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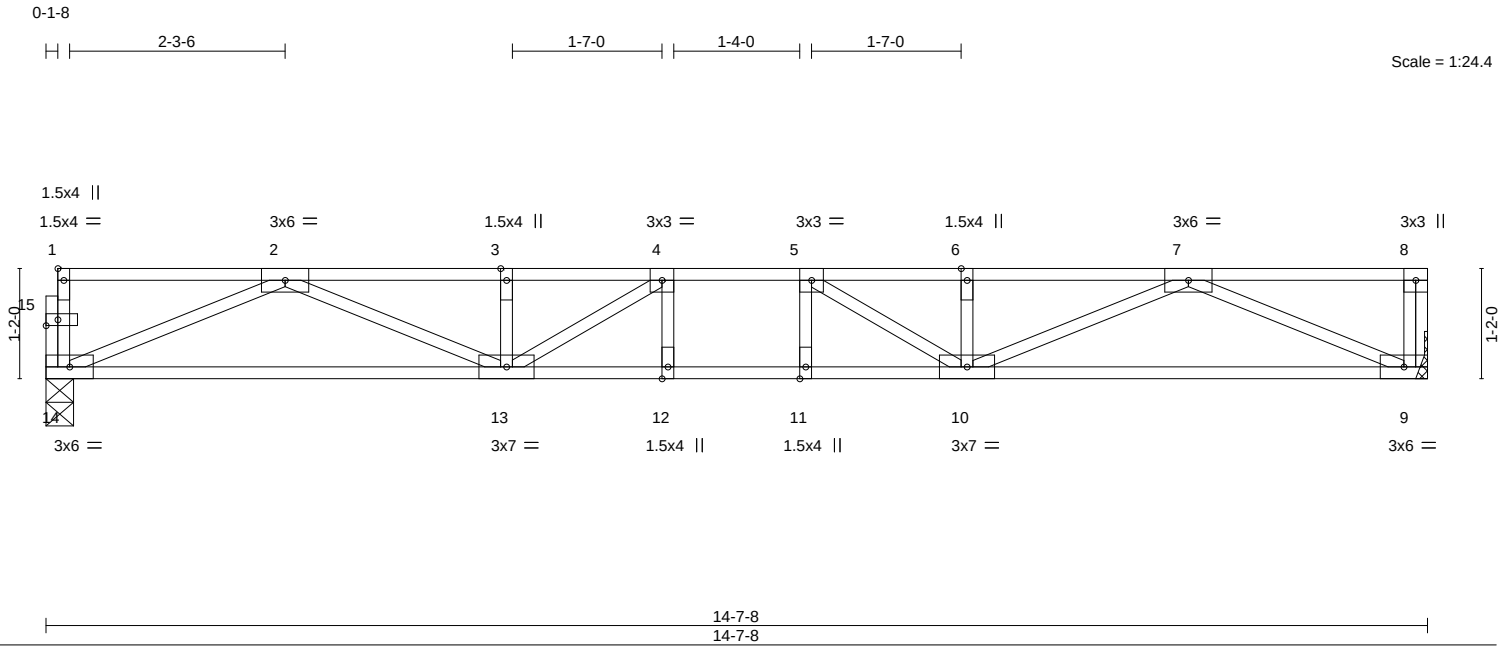

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [15:0-1-8,0-0-12]

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	0.39	Vert(LL)	-0.16	11-12	>999	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.81	Vert(CT)	-0.22	11-12	>768	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.05	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 74 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) 14=0-3-8, 9=Mechanical
Max Grav 14=784(LC 1), 9=791(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2451/0, 3-4=-2451/0, 4-5=-2702/0, 5-6=-2450/0, 6-7=-2450/0
BOT CHORD 13-14=0/1552, 12-13=0/2702, 11-12=0/2702, 10-11=0/2702, 9-10=0/1555
WEBS 2-14=-1685/0, 7-9=-1694/0, 2-13=0/983, 7-10=0/980, 4-13=-522/44, 5-10=-523/43

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) 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.

November 9,2021

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

Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	F4G	Floor Girder	1	1	I48727899
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:24 2021 Page 1
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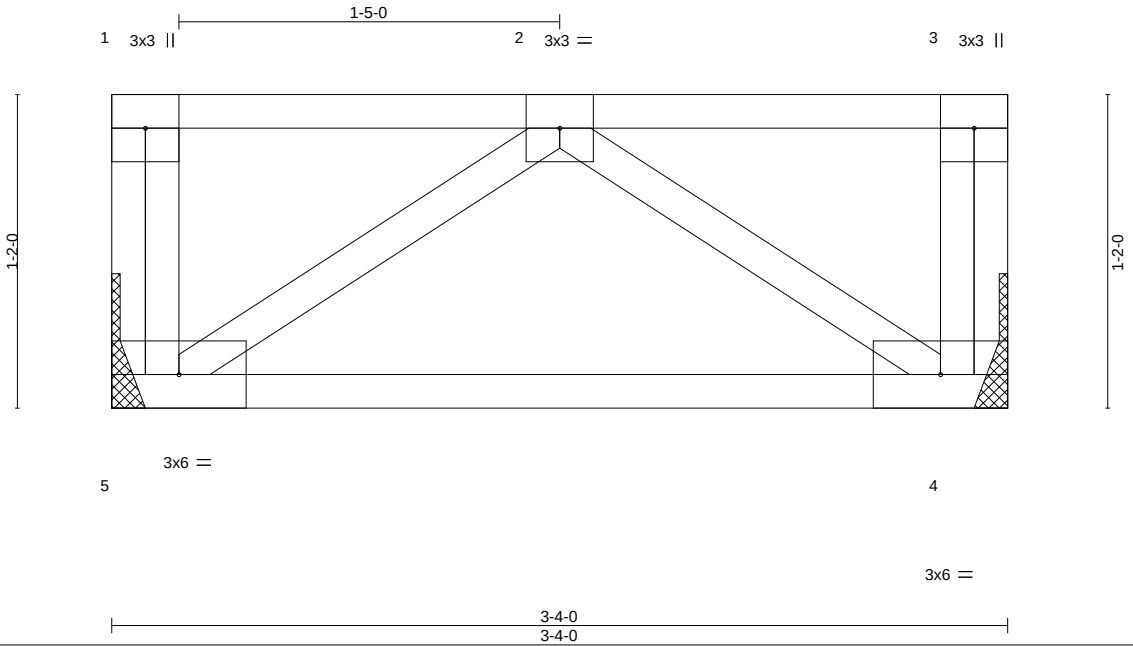

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.30	Vert(LL)	0.00	5	****	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.16	Vert(CT)	-0.01	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 20 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 3-4-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 4=Mechanical
Max Grav 5=293(LC 1), 4=293(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 4-5=0/254
WEBS 2-5=-307/0, 2-4=-307/0

NOTES-
1) 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.
2) Refer to girder(s) for truss to truss connections.
3) Load case(s) 1, 2 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) 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: 4-5=-10, 1-3=-180(F=-80)
2) Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 4-5=-10, 1-3=-180(F=-80)

November 9,2021

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

Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	F5	Floor	10	1	I48727900
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:25 2021 Page 1
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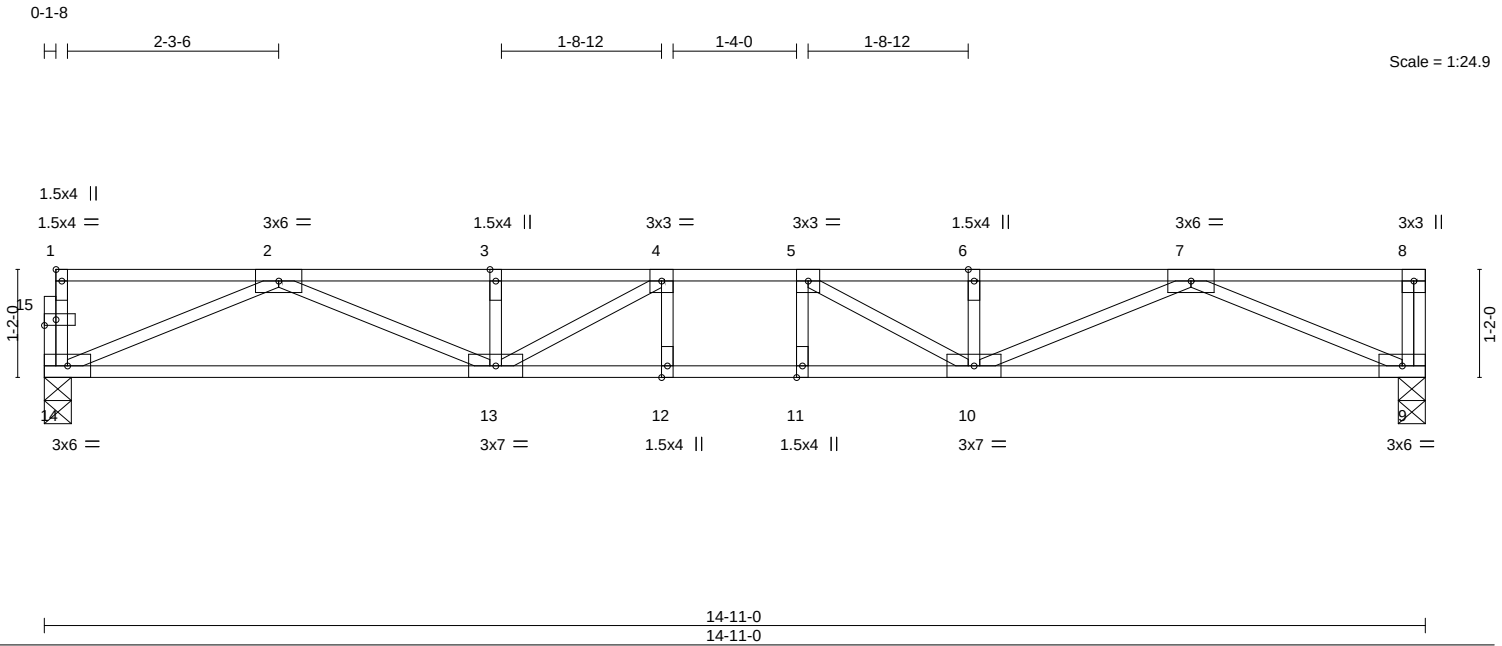

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [15:0-1-8,0-0-12]

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	0.39	Vert(LL)	-0.17	11-12	>999	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(CT)	-0.24	11-12	>728	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.05	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 75 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) 14=0-3-8, 9=0-3-8
Max Grav 14=800(LC 1), 9=807(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2526/0, 3-4=-2526/0, 4-5=-2815/0, 5-6=-2525/0, 6-7=-2525/0
BOT CHORD 13-14=0/1588, 12-13=0/2815, 11-12=0/2815, 10-11=0/2815, 9-10=0/1591
WEBS 2-14=-1725/0, 7-9=-1733/0, 2-13=0/1026, 7-10=0/1022, 4-13=-562/28, 5-10=-562/27

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) 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.

November 9,2021

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	F5G	FLOOR GIRDER	1	1	I48727901
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:25 2021 Page 1
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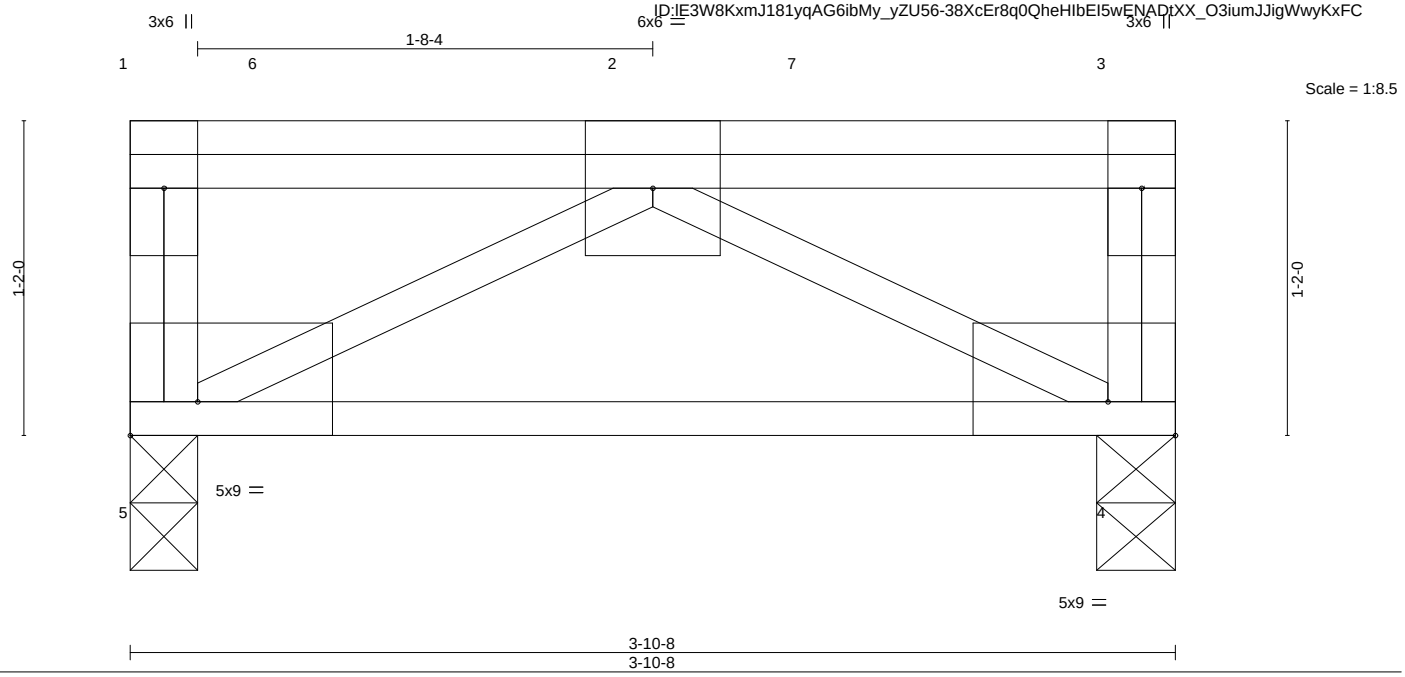

Plate Offsets (X,Y)-- [4:Edge,0-1-8], [5:Edge,0-1-8]

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	0.44	Vert(LL)	0.00	5	****	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.63	Vert(CT)	-0.03	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.49	Horz(CT)	0.01	4	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-P							Weight: 28 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP DSS(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 3-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-0, 4=0-3-8
Max Grav 5=1994(LC 1), 4=1412(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-5=-1023/0, 3-4=-441/0
BOT CHORD 4-5=0/1764
WEBS 2-5=-2005/0, 2-4=-2005/0

NOTES-
1) 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.
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.
3) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 813 lb down at 0-7-4, 717 lb down at 0-7-4, and 787 lb down at 2-7-4, and 691 lb down at 2-7-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
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: 4-5=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 6=-1530(F=-717, B=-813) 7=-1477(F=-691, B=-787)

November 9,2021

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	F6	Floor	10	1	I48727902
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:26 2021 Page 1
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2-3-6 1-4-12

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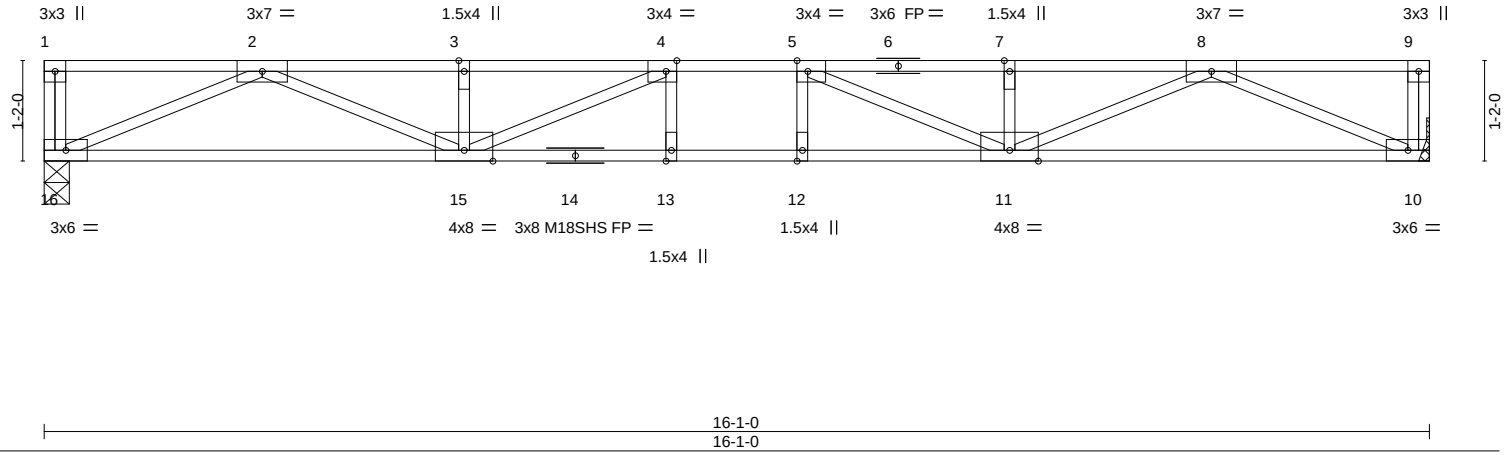

16-1-0
16-1-0

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,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	0.58	Vert(LL)	-0.22	12-13	>852	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.92	Vert(CT)	-0.31	12-13	>617	360	M18SHS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.06	10	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 81 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) *Except*
10-14: 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, Except: 2-2-0 oc bracing: 13-15.

REACTIONS. (size) 16=0-3-8, 10=Mechanical
Max Grav 16=871(LC 1), 10=871(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2828/0, 3-4=-2828/0, 4-5=-3293/0, 5-7=-2827/0, 7-8=-2827/0
BOT CHORD 15-16=0/1735, 13-15=0/3293, 12-13=0/3293, 11-12=0/3293, 10-11=0/1736
WEBS 2-16=-1891/0, 8-10=-1891/0, 2-15=0/1196, 3-15=-269/0, 8-11=0/1194, 7-11=-268/0, 4-15=-743/0, 5-11=-745/0

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) All plates are MT20 plates 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 9,2021

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

Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	F8	Floor	2	1	I48727903
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:27 2021 Page 1
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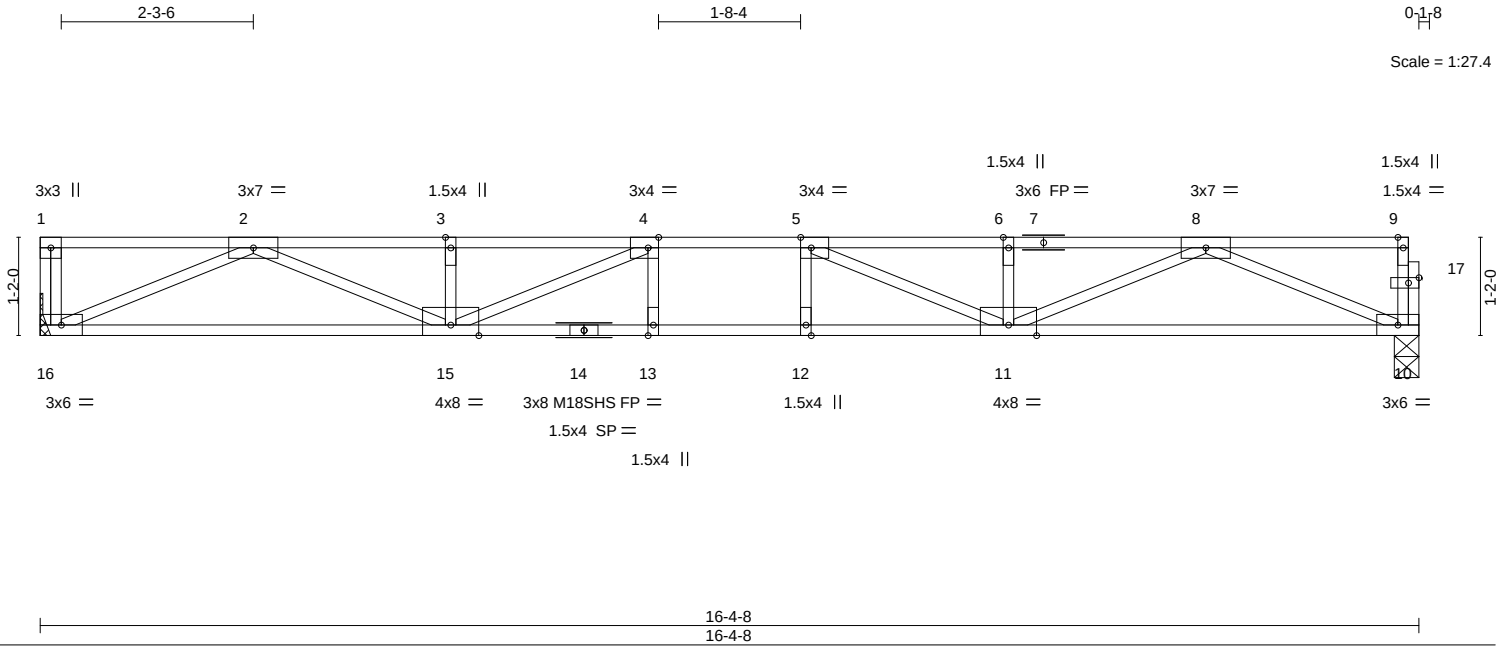

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge], [17:0-1-8,0-0-12]

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	0.61	Vert(LL)	-0.24	12-13	>810	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.95	Vert(CT)	-0.33	12-13	>586	360	M18SHS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.06	10	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 81 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) *Except*
10-14: 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, Except: 2-2-0 oc bracing: 13-15.

REACTIONS. (size) 16=Mechanical, 10=0-3-8
Max Grav 16=887(LC 1), 10=881(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2900/0, 3-4=-2900/0, 4-5=-3407/0, 5-6=-2899/0, 6-8=-2899/0
BOT CHORD 15-16=0/1772, 13-15=0/3407, 12-13=0/3407, 11-12=0/3407, 10-11=0/1770
WEBS 2-16=-1931/0, 8-10=-1923/0, 2-15=0/1234, 3-15=-272/0, 8-11=0/1235, 6-11=-273/0, 4-15=-804/0, 5-11=-807/0

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) All plates are MT20 plates unless otherwise indicated.
4) The Fabrication Tolerance at joint 14 = 11%
5) Refer to girder(s) for truss to truss connections.
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.

November 9,2021

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	F10	Floor	2	1	I48727904
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:20 2021 Page 1
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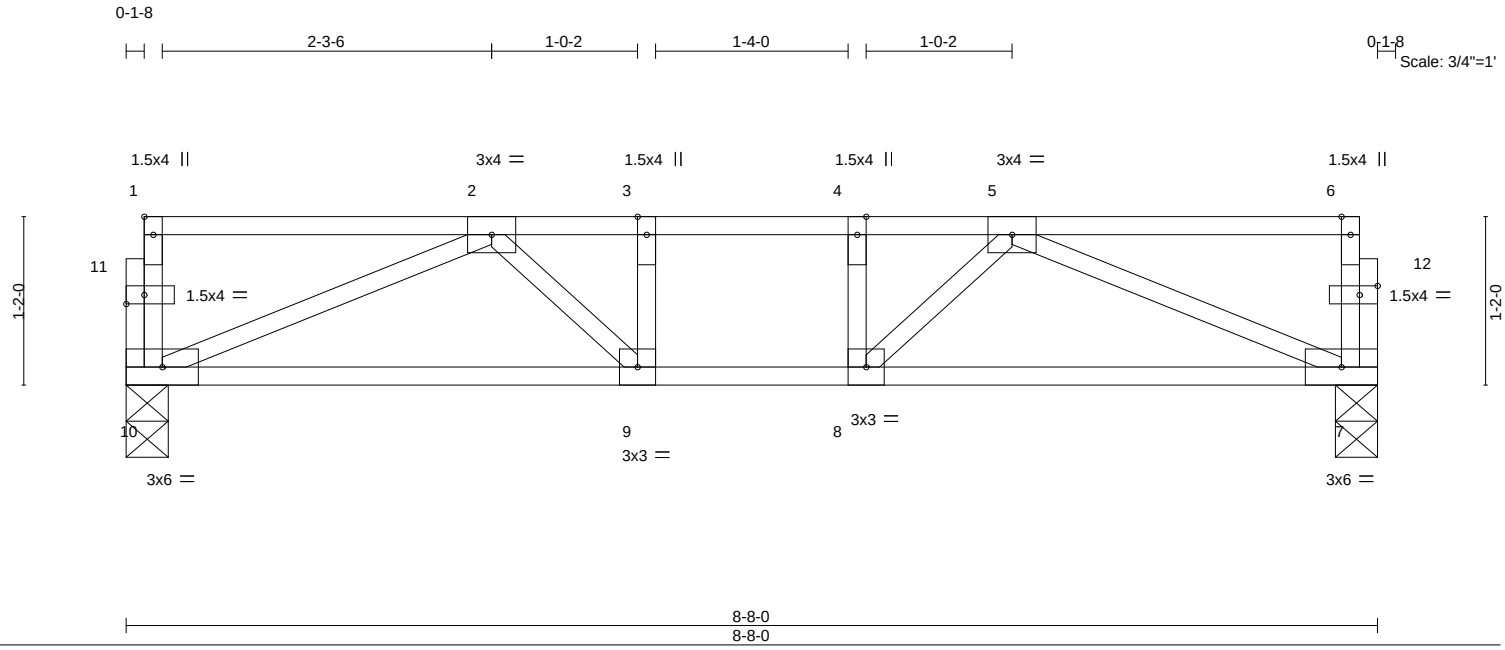

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [11:0-1-8,0-0-12], [12:0-1-8,0-0-12]

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	0.31	Vert(LL)	-0.03	7-8	>999	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.30	Vert(CT)	-0.05	9-10	>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 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) 10=0-3-8, 7=0-3-8
Max Grav 10=457(LC 1), 7=457(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-918/0, 3-4=-918/0, 4-5=-918/0
BOT CHORD 9-10=0/798, 8-9=0/918, 7-8=0/798
WEBS 2-10=-864/0, 5-7=-864/0, 2-9=0/294, 5-8=0/294

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) 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 9,2021

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

Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	KW2	Floor Supported Gable	1	1	I48727906
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:28 2021 Page 1
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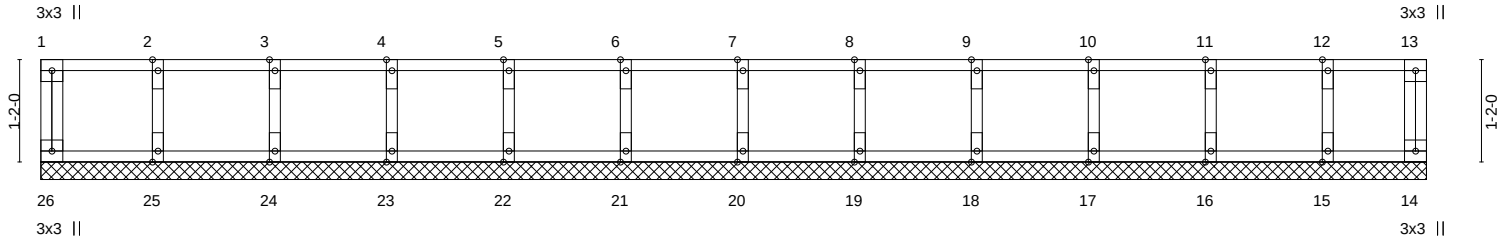

15-9-8
15-9-8

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	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	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							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)
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 15-9-8.
(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) 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.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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 9,2021

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

Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	KW3	Floor Supported Gable	1	1	I48727907
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:28 2021 Page 1
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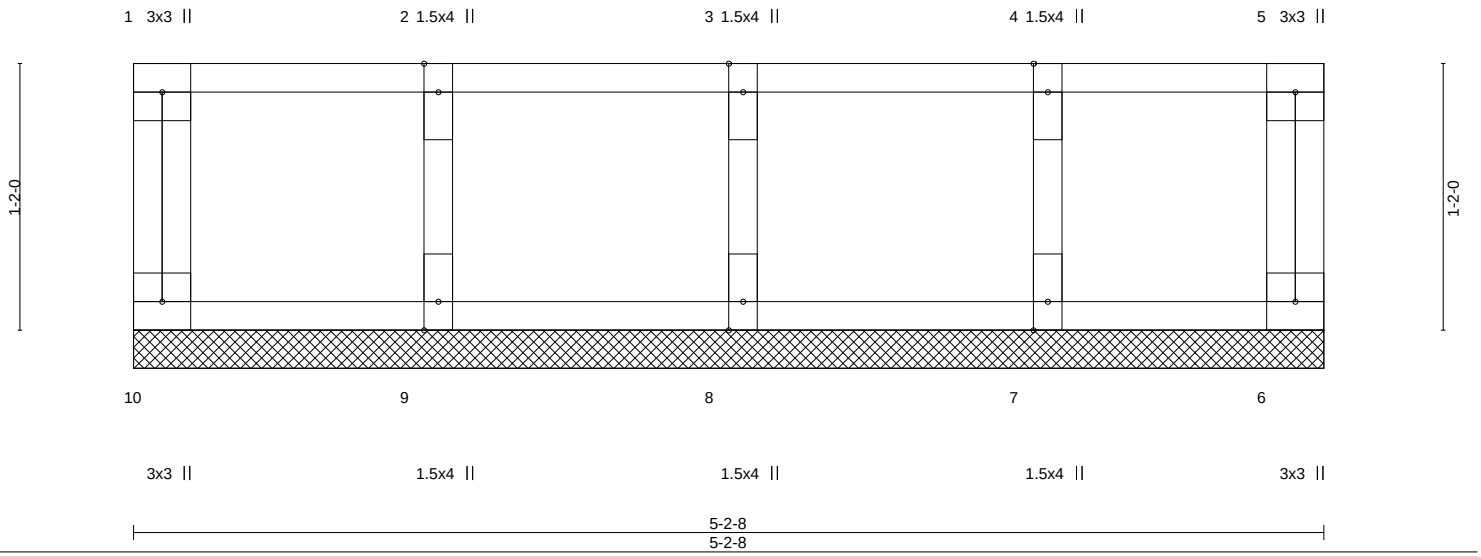

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 25 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 5-2-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 5-2-8.
(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) 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.
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 9,2021

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Job	Truss	Truss Type	Qty	Ply	21 PRINCE PLACE - FLOOR
30926A	KW4	Floor Supported Gable	1	1	I48727908
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:29 2021 Page 1
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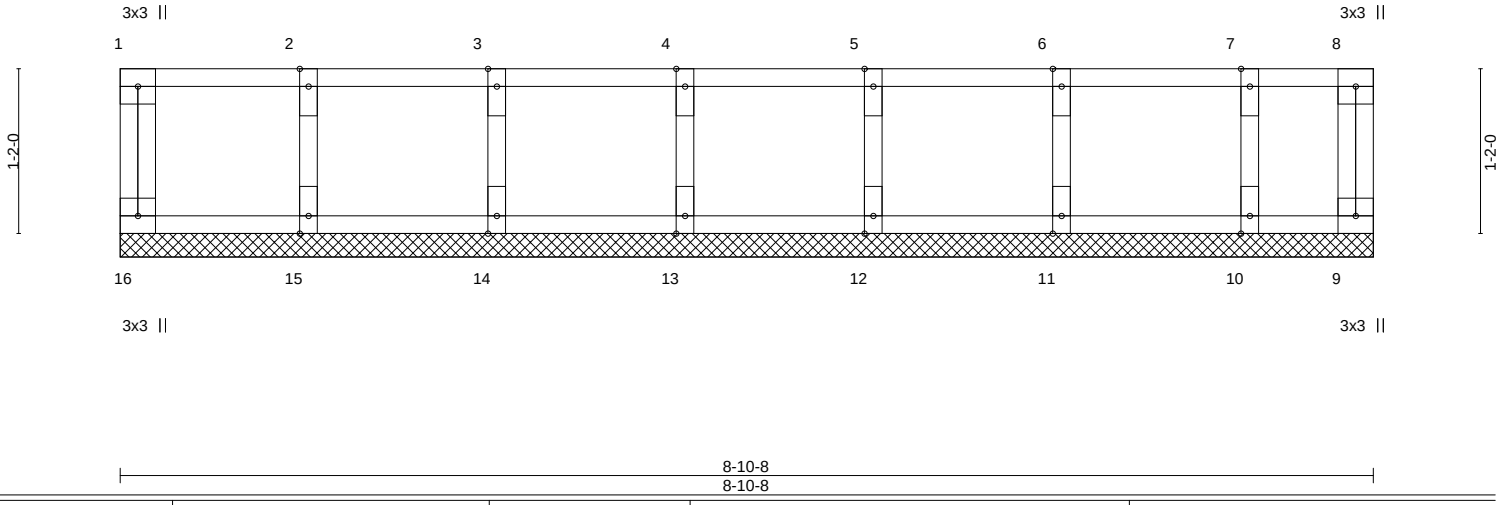

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 40 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 8-10-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 16, 9, 15, 14, 13, 12, 11, 10

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

NOTES-
1) 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.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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	21 PRINCE PLACE - FLOOR
30926A	KW5	GABLE	1	1	I48727909
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Nov 9 10:58:30 2021 Page 1
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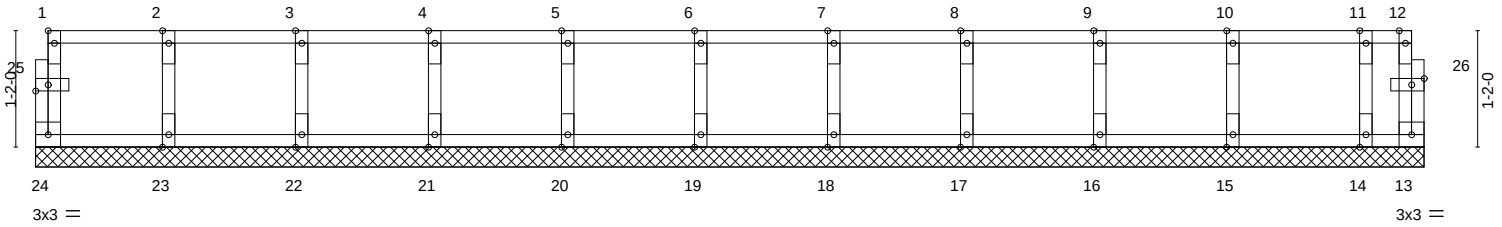

1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	13-11-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-7-0

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [25:0-1-8,0-0-12], [26:0-1-8,0-0-12]

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	13	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-R							Weight: 60 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 13-11-0.
(lb) - 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) 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.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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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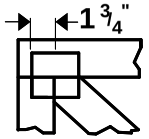
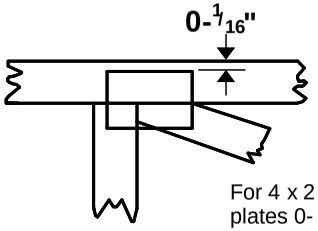
Symbols

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.

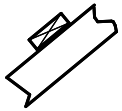
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

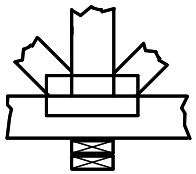
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

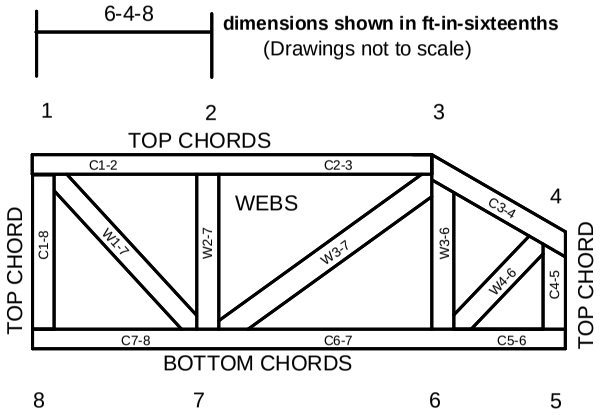


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.