

TRUSS BRACING DETAILS

SCALE: 1/4" = 1'-0"

TRUSS BRACING NOTES:

- IF TRUSS DOES NOT APPEAR ON THIS TRUSS BRACING SHEET, NO ADDITIONAL LATERAL BRACING IS REQUIRED.
- 2X4 SPP#2 LATERAL BRACES SHALL BE NAILED TO MINIMUM (3) TRUSS MEMBERS WITH MINIMUM (2) 10D NAILS. PROVISIONS MUST BE MADE AT ENDS OR SPECIFIED INTERVALS TO RESTRAIN OR ANCHOR LATERAL BRACING.
- WEB "I" BRACE, DETAIL 3/RF-1c, IS REQUIRED WHERE LATERAL BRACING IS NOT CONTINUOUS ACROSS THREE (3) OR MORE TRUSSES AND MAY BE USED IN LIEU OF 2X4 LATERAL BRACING.
- DIAGONAL BRACING REQUIRED WHEN LATERAL BRACING IS REQUIRED (4/RF-1c)
- STUDDED GABLE BRACING DETAIL (1/RF-1c) TO BE UTILIZED FOR TRUSSES 6'-4" IN HEIGHT OR GREATER.
- PARTIALLY SHEATHED GABLES, SEE (5/RF-1c) FOR "L" BRACING WHEN REQUIRED.
- LATERAL BRACING CAN BE APPLIED TO EITHER SIDE OF THE WEB MEMBER IDENTIFIED IN THE DRAWING.
- SHEATHING (OSB OR GYPSUM) REPLACES LATERAL AND DIAGONAL TRUSS BRACING.

SHEET NO.

S-3

MODEL

ARUBA BAY

DRAWING TITLE

TRUSS BRACING DETAILS

SET NO.

ABY00

VERSION

02

RELEASE

NO.

DRAWN BY

DATE:

OPTION

OPTION

MODEL

ARUBA BAY

DRAWING TITLE

TRUSS BRACING DETAILS

SET NO.

ABY00

VERSION

02

RELEASE

NO.

DRAWN BY

DATE:

OPTION

OPTION

DIV-COMM-LOT-UNIT

RLH-VK-0112

COMM-LOT

KIPLING VILLAGE - 0112

STREET ADDRESS

42 SAINTSBURY DRIVE

CITY

FUQUAY VARIANA

STATE

NC

ZIP

27526

DIV-COMM-LOT-UNIT

RLH-VK-0112

COMM-LOT

KIPLING VILLAGE - 0112

STREET ADDRESS

42 SAINTSBURY DRIVE

CITY

FUQUAY VARIANA

STATE

NC

ZIP

27526

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NVR
NVR, Inc., Suite 100
5285 Westview Drive
Frederick, MD 21703

Job ORDERS	Truss SE-22198	Truss Type COMN	Qty 1	Ply 1	10_Southeast Job Reference (optional)	158967546
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NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:34 2023 Page 1
ID:6y08fdlBKOJl8iZXMnHX1zFZU1-RfC?PsB70Hq3NSgPqnL8w3ulTxbGKWrcDoi7J4zJC?f

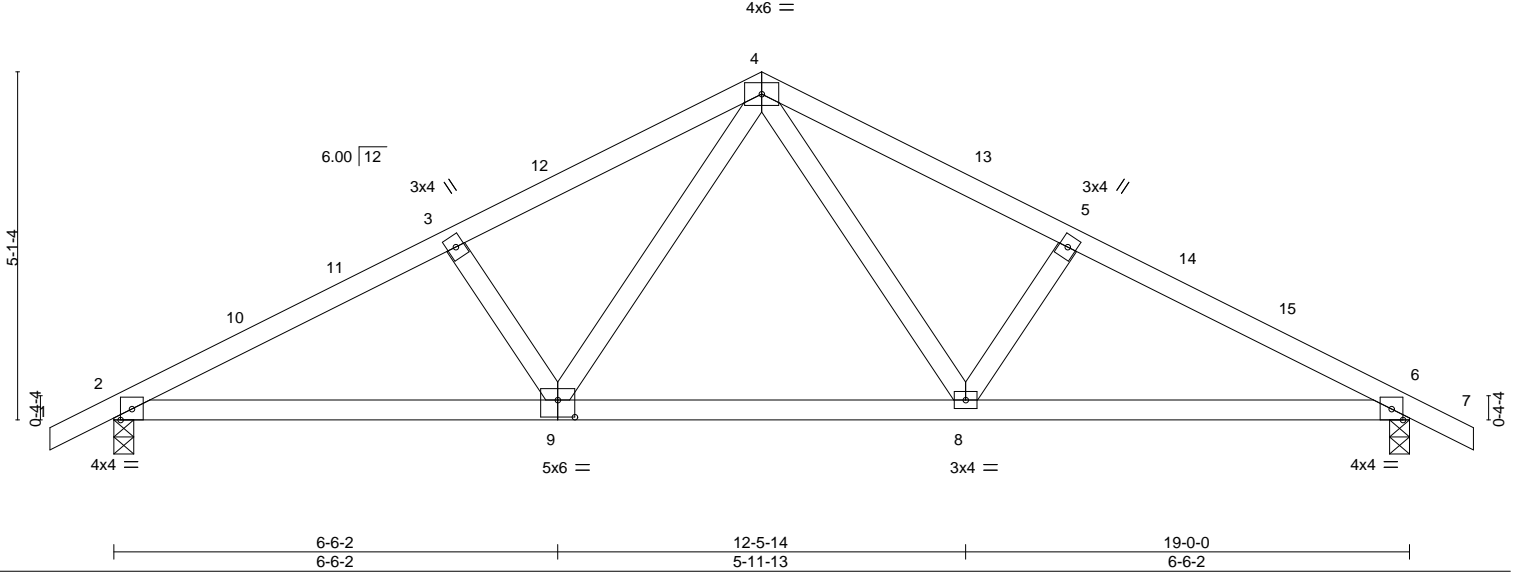
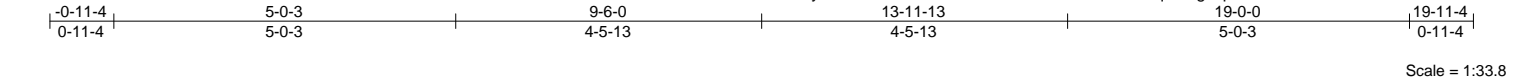


Plate Offsets (X,Y)-- [9:0-3-0,0-3-0]									
LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 30.0	Plate Grip DOL 1.15	2-0-0	TC 0.52	Vert(LL) -0.06	9	>999	360	MT20	197/144
(Roof Snow=30.0)	Lumber DOL 1.15		BC 0.55	Vert(CT) -0.12	2-9	>999	240		
TCDL 10.0	Rep Stress Incr YES		WB 0.28	Horz(CT) 0.04	6	n/a	n/a		
BCLL 0.0 *	Code IBC2021/TPI2014		Matrix-S	Wind(LL) 0.03	9	>999	240		
BCDL 10.0								Weight: 87 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-6 oc purlins.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 or 2x4 SPF Stud	

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=90(LC 16)
Max Uplift 2=121(LC 12), 6=121(LC 13)
Max Grav 2=1094(LC 19), 6=1094(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1781/312, 3-4=-1530/322, 4-5=-1530/322, 5-6=-1781/312
BOT CHORD 2-9=-186/1510, 8-9=-54/913, 6-8=-186/1510
WEBS 3-9=-503/174, 4-9=-85/658, 4-8=-86/658, 5-8=-503/174

NOTES- (8-11)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 6-6-0, Exterior(2R) 6-6-0 to 12-6-0, Interior(1) 12-6-0 to 16-11-4, Exterior(2E) 16-11-4 to 19-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 2 and 121 lb uplift at joint 6.
- 8) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
- 9) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
- 10) Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
- 11) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



June 16,2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10_Southeast	I58967547
ORDERS	SE-22199	COMN	1	1	Job Reference (optional)	

NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:35 2023 Page 1
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5-0-3 9-6-0 13-11-13 19-0-0 19-11-4
5-0-3 4-5-13 4-5-13 5-0-3 0-11-4

Scale = 1:33.3

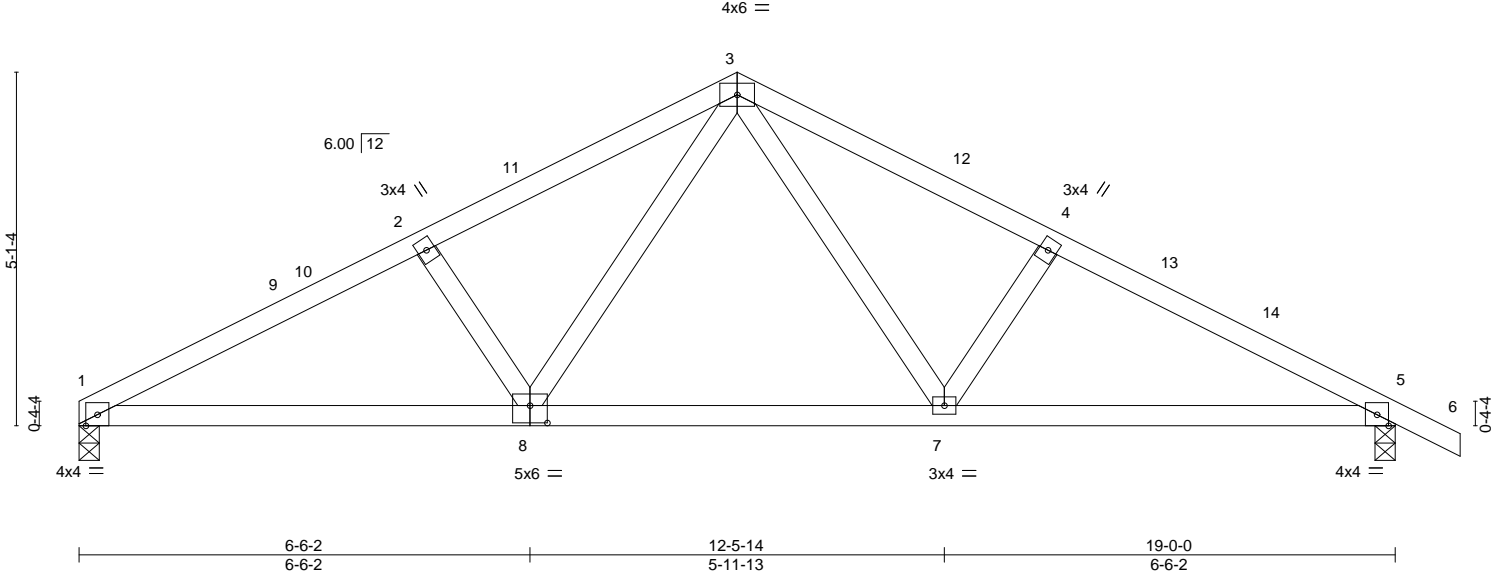


Plate Offsets (X,Y)-- [8:0-3-0,0-3-0]							
LOADING (psf)		SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl L/d
TCLL	30.0	Plate Grip DOL	1.15	TC	0.54	-0.06 8	>999 360
(Roof Snow=30.0)		Lumber DOL	1.15	BC	0.56	Vert(CT) -0.12 1-8	>999 240
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT) 0.04 5	n/a n/a
BCLL	0.0 *	Code IBC2021/TPI2014		Matrix-S		Wind(LL) 0.03 8	>999 240
BCDL	10.0						
						Weight: 86 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-11-0 oc purlins.
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3 or 2x4 SPF Stud		

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=-97(LC 17)
Max Uplift 1=-96(LC 12), 5=-121(LC 13)
Max Grav 1=1005(LC 19), 5=1096(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1778/329, 2-3=-1545/337, 3-4=-1533/328, 4-5=-1783/318
BOT CHORD 1-8=-206/1528, 7-8=-59/918, 5-7=-191/1512
WEBS 2-8=-513/183, 3-8=-93/672, 3-7=-86/658, 4-7=-503/174

- NOTES-** (8-11)
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-6-0, Exterior(2R) 6-6-0 to 12-6-0, Interior(1) 12-6-0 to 16-11-4, Exterior(2E) 16-11-4 to 19-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCCL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 1 and 121 lb uplift at joint 5.
 - 8) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
 - 9) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
 - 10) Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
 - 11) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.

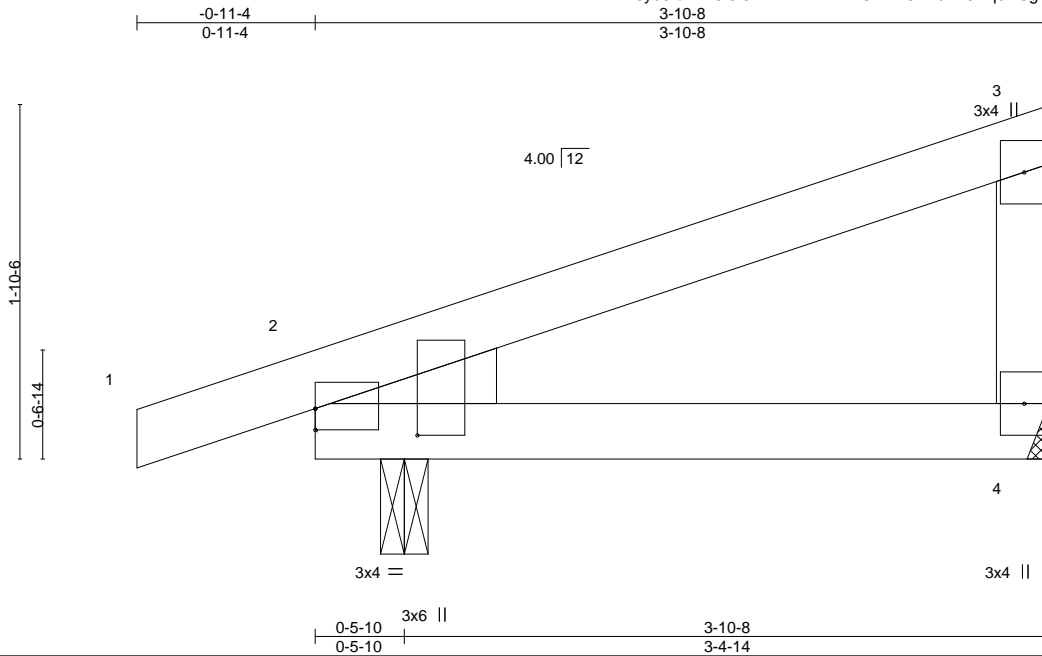


June 16,2023

Job	Truss	Truss Type	Qty	Ply	10_Southeast	158967548
ORDERS	SE-22200	MONO	1	1	Job Reference (optional)	

NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:36 2023 Page 1
ID:6y08fdlBK0UJ8iZXMnHX1zFZU1-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcD0i7J4zJC?f



Scale: 1"=1'

Plate Offsets (X,Y)-- [2:0-0-0,0-1-5], [2:0-1-11,0-6-7]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 30.0	2-0-0		TC 0.42	Vert(LL)	-0.01	2-4	>999	360	MT20	197/144
(Roof Snow=30.0)	Plate Grip DOL 1.15		BC 0.49	Vert(CT)	-0.02	2-4	>999	240		
TCDL 10.0	Lumber DOL 1.15		WB 0.00	Horz(CT)	0.00		n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES		Matrix-P	Wind(LL)	0.00	2	****	240		
BCDL 10.0	Code IBC2021/TPI2014								Weight: 17 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.3 or 2x4 SPF Stud
WEDGE
Left: 2x4 SP or SPF No.3 or Stud

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) 4=Mechanical, 2=0-3-0
Max Horz 2=62(LC 8)
Max Uplift 4=-38(LC 12), 2=-66(LC 8)
Max Grav 4=224(LC 19), 2=380(LC 19)

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

- NOTES-** (9-12)
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 4 and 66 lb uplift at joint 2.
 - 9) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
 - 10) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
 - 11) Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
 - 12) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



June 16,2023

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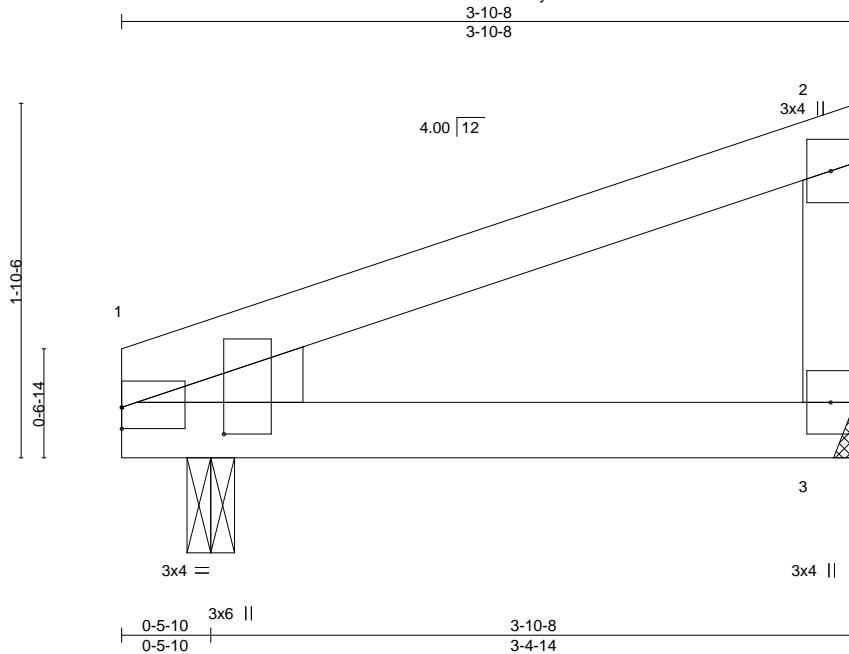
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10_Southeast	I58967549
ORDERS	SE-22201	MONO	1	1	Job Reference (optional)	

NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:37 2023 Page 1
ID:6y08fdlBKOIJ8iZXmHX1zFZU1-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f



Scale: 1"=1'

Plate Offsets (X,Y)-- [1:0-0-0,0-1-5], [1:0-1-11,0-6-7]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 30.0 (Roof Snow=30.0)	2-0-0		TC 0.44	Vert(LL)	-0.01	1-3	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.38	Vert(CT)	-0.02	1-3	>999	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.00	Horz(CT)	0.00		n/a	n/a		
BCDL 10.0	Code IBC2021/TPI2014		Matrix-P	Wind(LL)	0.00	1	****	240	Weight: 15 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.3 or 2x4 SPF Stud
WEDGE
Left: 2x4 SP or SPF No.3 or Stud

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) 3=Mechanical, 1=0-3-0
Max Horz 1=60(LC 8)
Max Uplift 3=-41(LC 8), 1=-16(LC 8)
Max Grav 3=234(LC 18), 1=234(LC 18)

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

- NOTES-** (8-11)
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 3 and 16 lb uplift at joint 1.
 - 8) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
 - 9) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
 - 10) Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
 - 11) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



June 16,2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10_Southeast	I58967551
ORDERS	SE-22203	COMN	1	1	Job Reference (optional)	

NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:38 2023 Page 1

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0-11-4 6-0-3 10-0-0 11-6-2 12-5-14 17-0-0 24-0-0 28-8-2 29-1-7 34-0-0 34-11-4
0-11-4 6-0-3 3-11-13 1-6-2 0-11-13 4-6-2 7-0-0 4-8-2 0-5-5 4-10-9 0-11-4

Scale = 1:59.5

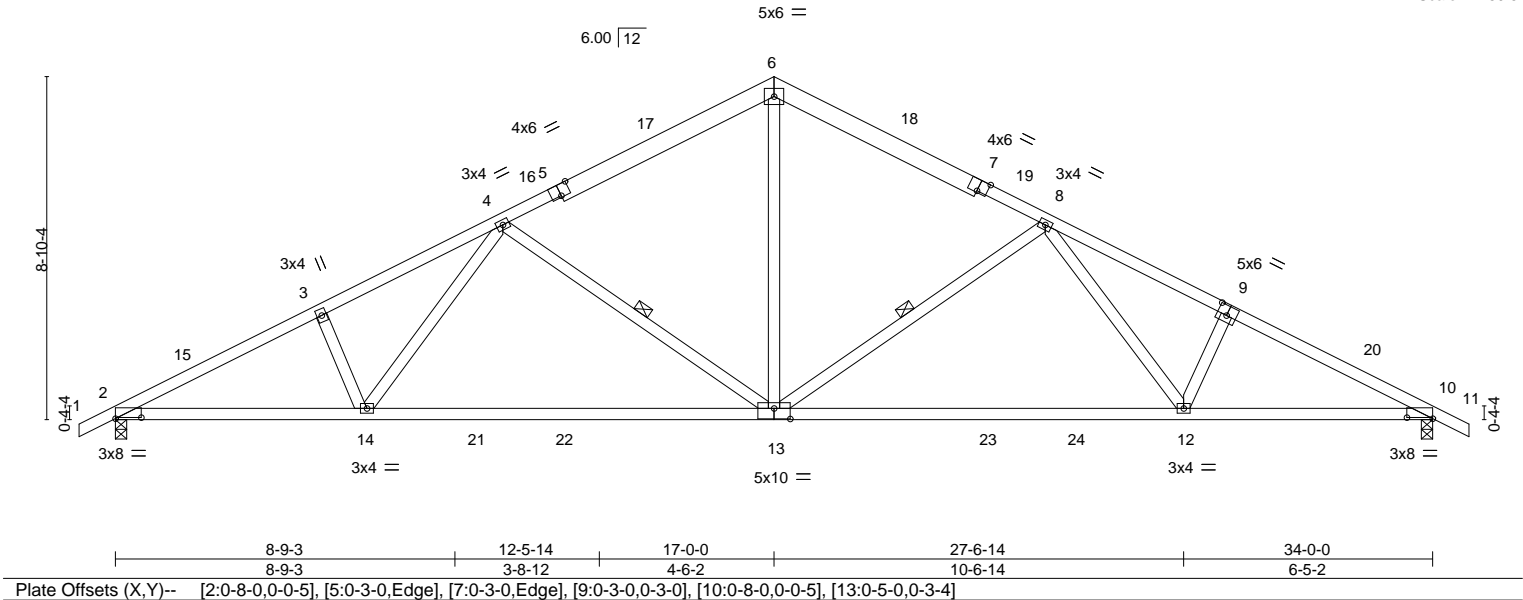


Plate Offsets (X,Y)--		[2:0-8-0,0-0-5], [5:0-3-0,Edge], [7:0-3-0,Edge], [9:0-3-0,0-3-0], [10:0-8-0,0-0-5], [13:0-5-0,0-3-4]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 30.0	2-0-0	TC 0.99	in (loc) l/defl L/d
(Roof Snow=30.0)	Plate Grip DOL 1.15	BC 0.58	Vert(LL) -0.23 13-14 >999 360
TCDL 10.0	Lumber DOL 1.15	WB 0.48	Vert(CT) -0.49 13-14 >826 240
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.11 10 n/a n/a
BCDL 10.0	Code IBC2021/TPI2014		Wind(LL) 0.09 13-14 >999 240
			PLATES MT20
			GRIP 197/144
			Weight: 183 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except*	TOP CHORD Structural wood sheathing directly applied.
9-11,1-5: 2x4 SP No.2 or 2x4 SPF No.2, 7-9: 2x4 SP No.2D	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD 2x4 SP 2250F 1.9E or 2x4 SPF 2100F 1.8E	WEBS 1 Row at midpt 4-13, 8-13
WEBS 2x4 SP No.3 or 2x4 SPF Stud	

REACTIONS.	(size) 2=0-3-8, 10=0-3-8
	Max Horz 2=152(LC 16)
	Max Uplift 2=199(LC 12), 10=199(LC 13)
	Max Grav 2=1772(LC 1), 10=1772(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3228/312, 3-4=-3061/348, 4-6=-2043/311, 6-8=-2043/311, 8-9=-3057/347, 9-10=-3228/313
BOT CHORD	2-14=-349/2780, 13-14=-253/2335, 12-13=-149/2337, 10-12=-198/2780
WEBS	6-13=-55/1107, 4-13=-881/254, 4-14=-56/567, 3-14=-298/164, 8-13=-885/256, 8-12=-54/561, 9-12=-297/163

- NOTES-** (8-11)
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 14-0-0, Exterior(2R) 14-0-0 to 20-0-0, Interior(1) 20-0-0 to 31-11-4, Exterior(2E) 31-11-4 to 34-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 199 lb uplift at joint 2 and 199 lb uplift at joint 10.
 - 8) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
 - 9) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
 - 10) Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
 - 11) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



June 16,2023

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ENGINEERING BY
TRENCO
A MITEK Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10_Southeast	I58967552
ORDERS	SE-22204	CONN	1	1	Job Reference (optional)	

NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:40 2023 Page 1

ID:5lb56nez?NGp7jN5pS3vTuyrxGa-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcD0i7J4zJC?f

-0-11-4

9-6-0

19-0-0

19-11-4

0-11-4

0-11-4

9-6-0

0-11-4

Scale = 1:34.7

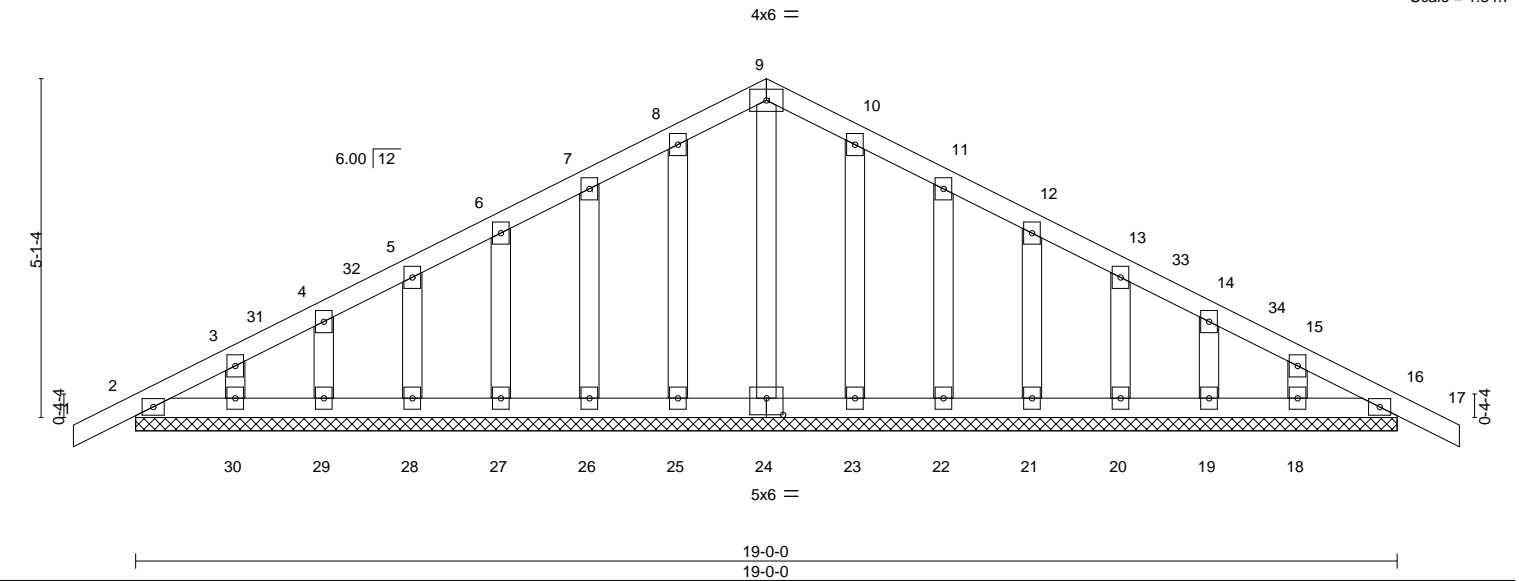


Plate Offsets (X,Y)-- [24:0-3-0,0-3-0]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL 30.0		Plate Grip DOL	1.15	TC 0.08		Vert(LL)	0.00 17	n/r	120
(Roof Snow=30.0)		Lumber DOL	1.15	BC 0.03		Vert(CT)	0.00 16	n/r	120
TCDL 10.0		Rep Stress Incr	YES	WB 0.07		Horz(CT)	0.00 16	n/a	n/a
BCLL 0.0 *		Code IBC2021/TPI2014		Matrix-S					
BCDL 10.0									
						PLATES	GRIP		
						MT20	197/144		
						Weight: 110 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.3 or 2x4 SPF Stud		

REACTIONS. All bearings 19-0-0.

(lb) - Max Horz 2=90(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16

Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16

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

- NOTES-** (12-15)
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-4 to 2-0-12, Exterior(2N) 2-0-12 to 6-6-0, Corner(3R) 6-6-0 to 12-6-0, Exterior(2N) 12-6-0 to 16-11-4, Corner(3E) 16-11-4 to 19-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
 - All plates are 3x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16.
 - Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
 - Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
 - Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
 - Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



June 16,2023

Job	Truss	Truss Type	Qty	Ply	10_Southeast	158967553
ORDERS	SE-22205	SPEC	1	1	Job Reference (optional)	

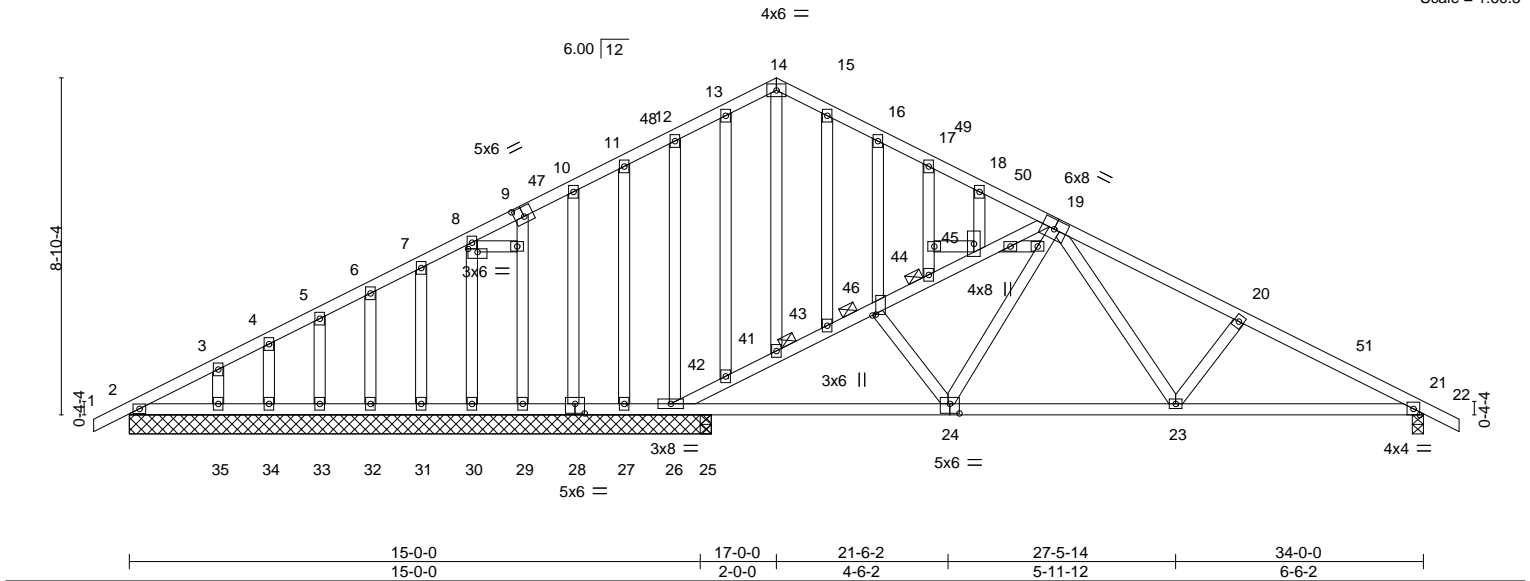
NVR, Frederick, MD - 21703,

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ID:ohdzKV9G?y7BSGCeIVYzPJyGyXY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-11-4 17-0-0 29-3-6 34-0-0 34-11-4
0-11-4 17-0-0 12-3-6 4-8-10 0-11-4

Scale = 1:60.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	30.0	Plate Grip DOL	2-0-0	TC	0.36	in (loc)	l/defl	L/d	MT20	197/144	
(Roof Snow=30.0)		Lumber DOL	1.15	BC	0.60	Vert(LL)	-0.09 23-24	>999			
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Vert(CT)	-0.14 23-24	>999			
BCLL	0.0 *	Code IBC2021/TPI2014		Matrix-S		Horz(CT)	-0.05 2	n/a			
BCDL	10.0					Wind(LL)	0.05 23-24	>999			
								Weight: 258 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-10-1 oc purlins.
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3 or 2x4 SPF Stud "Except"	WEBS	1 Row at midpt 41-44
OTHERS	2x4 SP No.3 or 2x4 SPF Stud	JOINTS	1 Brace at Jt(s): 41, 44

REACTIONS.	
All bearings 15-3-8 except (jt=length) 21=0-3-8, 25=0-3-8.	
(lb) - Max Horz	21=154(LC 12)
Max Uplift	All uplift 100 lb or less at joint(s) 27, 28, 29, 30, 31, 32, 33, 34, 35 except 21=135(LC 13), 26=221(LC 13)
Max Grav	All reactions 250 lb or less at joint(s) 27, 28, 29, 30, 31, 32, 33, 34, 35 except 2=269(LC 19), 21=1165(LC 20), 26=835(LC 20), 25=353(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-271/66, 12-13=-261/115, 19-20=-1712/205, 20-21=-1932/204
BOT CHORD	25-26=-185/1606, 24-25=-185/1606, 23-24=-129/1193, 21-23=-263/1643
WEBS	26-42=-1649/338, 41-42=-1670/335, 41-43=-1669/347, 43-46=-1663/340, 44-46=-1437/280, 44-45=-1427/273, 19-45=-1393/267, 12-26=-370/64, 16-46=-417/107, 19-24=-7/452, 19-23=-70/489, 20-23=-333/165, 24-46=-341/98

- NOTES-** (11-14)
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-4 to 2-4-0, Interior(1) 2-4-0 to 14-0-0, Exterior(2R) 14-0-0 to 20-0-0, Interior(1) 20-0-0 to 31-11-4, Exterior(2E) 31-11-4 to 34-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
 - All plates are 3x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 27, 28, 29, 30, 31, 32, 33, 34, 35 except (jt=lb) 21=135, 26=221.



June 16,2023

Continued on page 2

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10_Southeast	I58967553
ORDERS	SE-22205	SPEC	1	1	Job Reference (optional)	

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- 11) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
- 12) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
- 13) Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
- 14) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.

Job	Truss	Truss Type	Qty	Ply	10_Southeast	I58967558
ORDERS	SE-22210	COMN	1	1	Job Reference (optional)	

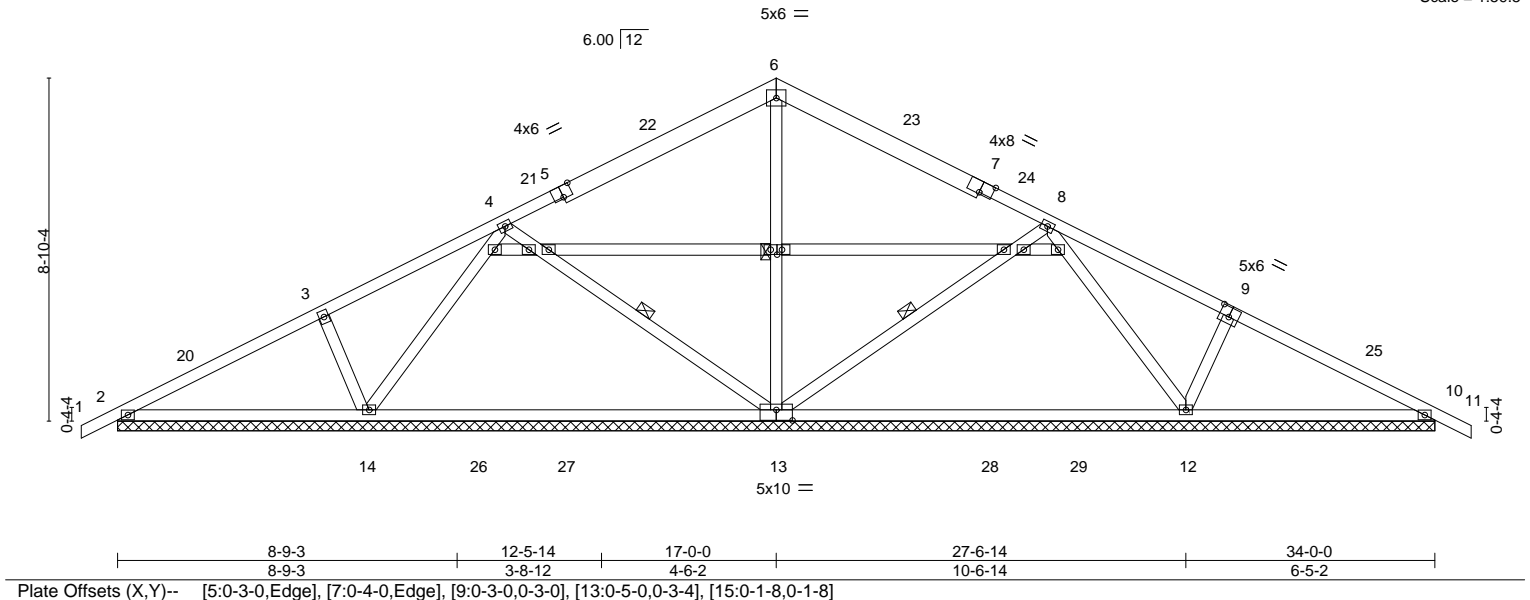
NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:47 2023 Page 1

ID:ohdzKV9G?y7BSGCElYvzPJyGyXY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-11-4 6-0-3 10-0-0 11-6-2 12-5-14 17-0-0 24-0-0 28-8-2 29-1-7 34-0-0 34-11-4
0-11-4 6-0-3 3-11-13 1-6-2 0-11-13 4-6-2 7-0-0 4-8-2 0-5-5 4-10-9 0-11-4

Scale = 1:59.5



LOADING (psf)	SPACING-	CSL	DEFL	PLATES	GRIP
TCLL 30.0	2-0-0	TC 0.78	in (loc) l/defl L/d	MT20	197/144
(Roof Snow=30.0)	Plate Grip DOL 1.15	BC 0.87	Vert(LL) -0.01 11 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.46	Vert(CT) 0.00 11 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 10 n/a n/a		
BCDL 10.0	Code IBC2021/TPI2014			Weight: 205 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
5-6,6-7: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 7-10-3 oc bracing.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	WEBS 1 Row at midpt 6-13, 4-13, 8-13
WEBS 2x4 SP No.3 or 2x4 SPF Stud	

REACTIONS.	All bearings 34-0-0.
(lb) - Max Horz 2=152(LC 16)	
Max Uplift All uplift 100 lb or less at joint(s) 2, 13, 10 except 14=160(LC 12), 12=153(LC 13)	
Max Grav All reactions 250 lb or less at joint(s) except 2=353(LC 19), 13=1049(LC 1), 14=982(LC 19), 10=355(LC 20), 12=986(LC 20)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 13-14=49/290, 12-13=0/293	
WEBS 6-13=555/88, 4-13=311/157, 4-14=560/127, 3-14=377/175, 8-13=308/161, 8-12=570/121, 9-12=375/173	

- NOTES-** (10-13)
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 14-0-0, Exterior(2R) 14-0-0 to 20-0-0, Interior(1) 20-0-0 to 31-11-4, Exterior(2E) 31-11-4 to 34-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
 - All plates are 3x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 13, 10 except (jt=lb) 14=160, 12=153.
 - Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
 - Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
 - Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
 - Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



June 16,2023

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Edenton, NC 27932