AA SE-18452

AB SE-18453

AH SE-18454

AJ SE-18455

AN SE-18456

AQ SE-18457

AS SE-18424

AT SE-18425

AU SE-18426

AP SE-17641

TRUSS BRACING DETAILS

1
S-3   SCALE: 1/4" = 1'-0"

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

DIV-COMM-LOT-UNIT
RLH-VK-0019

COMM-LOT
KIPLING VILLAGE - 0019

STREET ADDRESS
2713 SOUTH BREEZE WAY

APT. NO.

CITY
FUQUAY VARINA

STATE
NC

ZIP
27526

SET NO. GBH00
VERSION 01
RELEASE NO. -----

DRAWN BY
DATE:

OPTION

MODEL
GRAND BAHAMA

DRAWING TITLE
TRUSS BRACING

OPTION DESCRIPTION

SHEET NO.
S-3

22

TRUSS BRACING NOTES:

1. IF TRUSS DOES NOT APPEAR ON THIS TRUSS BRACING SHEET, NO ADDITIONAL LATERAL BRACING IS REQUIRED.
2. 2X4 SPF#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.
3. WEB "T" 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.
4. DIAGONAL BRACING REQUIRED WHEN LATERAL BRACING IS REQUIRED (4/RF-1c)
5. STUDDED GABLE BRACING DETAIL (1/RF-1c) TO BE UTILIZED FOR TRUSSES 6'-4" IN HEIGHT OR GREATER.
6. PARTIALLY SHEATHED GABLES, SEE (5/RF-1c) FOR "L" BRACING WHEN REQUIRED.
7. LATERAL BRACING CAN BE APPLIED TO EITHER SIDE OF THE WEB MEMBER IDENTIFIED IN THE DRAWING.
8. SHEATHING (OSB OR GYPSUM) REPLACES LATERAL AND DIAGONAL TRUSS BRACING.

Job	Truss	Truss Type	Qty	Ply	10_Southeast	
ORDERS	SE-14544	COMN	1	1		I49147390
					Job Reference (optional)	

NVR,   Frederick, MD - 21703,

8.530 s Nov 29 2021 MiTek Industries, Inc. Tue Dec 7 20:30:24 2021 Page 1
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4x6 =

8.00 ⎡12
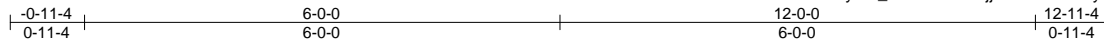
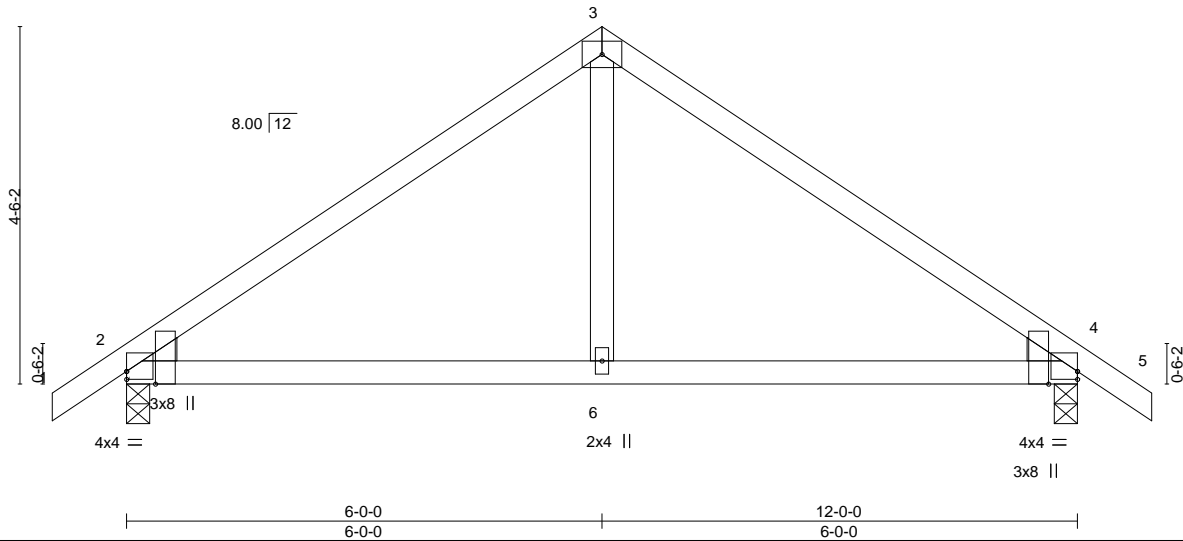Scale = 1:29.1

Plate Offsets (X,Y)--   [2:0-0-0,0-1-3], [2:0-1-15,Edge], [4:0-0-0,0-1-3], [4:0-1-15,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.03	2-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.06	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S		Wind(LL)	0.03	2-6	>999	240	Weight: 50 lb	FT = 5%

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 , Right: 2x4 SP or SPF No.3 or Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size) 2=0-3-8, 4=0-3-8
           Max Horz 2=118(LC 9)
           Max Uplift 2=-79(LC 10), 4=-79(LC 11)
           Max Grav 2=533(LC 1), 4=533(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-558/86, 3-4=-558/86
BOT CHORD   2-6=-1/377, 4-6=-1/377
WEBS   3-6=0/286

NOTES- (6-8)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 2 and 79 lb uplift at
   joint 4.
6) Design checked for ASCE 7-16 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.
7) Design checked for ASCE 7-16 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.
8) 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.

January 12,2022

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10_Southeast	
ORDERS	SE-14545	COMN	1	1		I49147391
					Job Reference (optional)	

NVR,　　Frederick, MD - 21703,　　　　　　　　　　　　8.530 s Nov 29 2021 MiTek Industries, Inc. Tue Dec 7 20:30:25 2021 Page 1
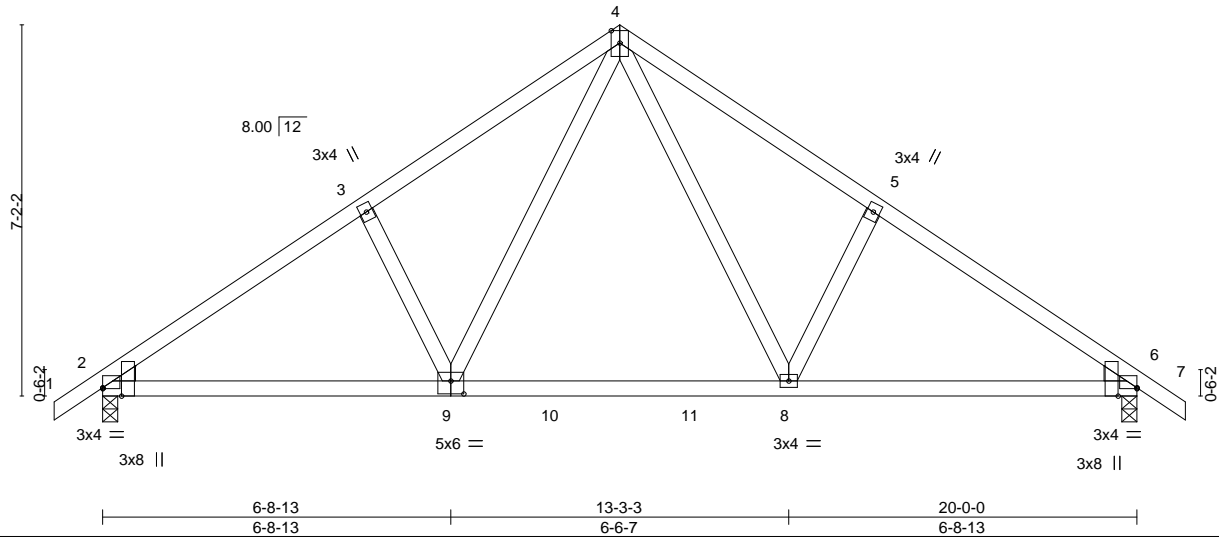ID:?RrLVUNcBotMPeFP6cfGVKyEIz_-51O9IcHTHwra1YuXvgnuey19Tj4zb5Hm0llPOJyBF8y

Plate Offsets (X,Y)-- [2:0-0-0,0-0-3], [2:0-1-15,Edge], [6:0-1-15,Edge], [6:0-0-0,0-0-3], [9:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.08	8-9	>999	360		MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.12	6-8	>999	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.02	6	n/a	n/a			
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S		Wind(LL)	0.03	2-9	>999	240		Weight: 103 lb	FT = 5%

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 , Right: 2x4 SP or SPF No.3 or Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 5-2-15 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   2=0-3-8, 6=0-3-8
　　　　　Max Horz 2=-185(LC 8)
　　　　　Max Uplift 2=-117(LC 10), 6=-117(LC 11)
　　　　　Max Grav 2=853(LC 1), 6=853(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1113/140, 3-4=-979/207, 4-5=-979/207, 5-6=-1113/140
BOT CHORD   2-9=-145/940, 8-9=-2/616, 6-8=-38/842
WEBS   3-9=-270/210, 4-9=-122/482, 4-8=-123/482, 5-8=-270/210

NOTES-   (6-8)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 2 and 117 lb uplift at
   joint 6.
6) Design checked for ASCE 7-16 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.
7) Design checked for ASCE 7-16 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.
8) 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.

January 12,2022

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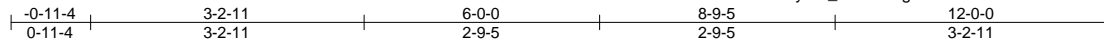ENGINEERING BY
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	11_Southeast-Girder-Int	
ORDERS	SE-14546	COMN	1	**2**	Job Reference (optional)	I49147402

NVR,   Frederick, MD - 21703,

8.530 s Nov 29 2021 MiTek Industries, Inc. Tue Dec 7 20:30:58 2021 Page 1
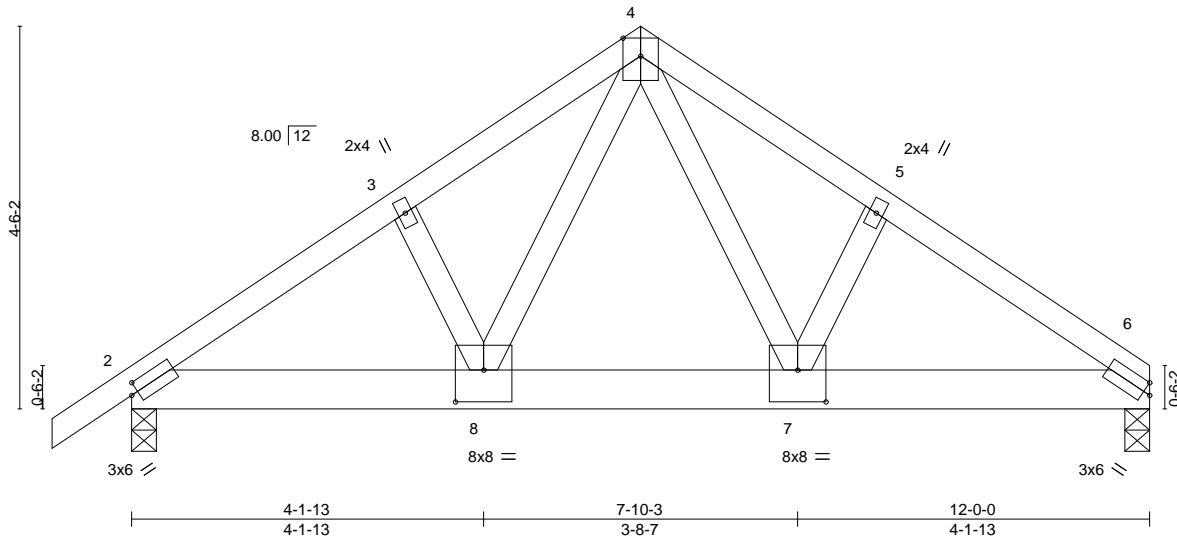ID:?RrLVUNcBotMPeFP6cfGVKyEIz_-dNuehugAW3?uUdwtK6sdUvuoU0ClqvQdcOFf3uyBF8R

Scale = 1:27.2

Plate Offsets (X,Y)--   [2:0-1-0,0-1-8], [7:0-4-0,0-4-8], [8:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.05	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.09	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S		Wind(LL)	0.03	7-8	>999	240	Weight: 140 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x6 SP No.2
WEBS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 4-11-3 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   2=0-3-8, 6=0-3-8
                Max Horz 2=91(LC 7)
                Max Uplift 2=-201(LC 8), 6=-189(LC 9)
                Max Grav 2=4787(LC 15), 6=4722(LC 16)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-5667/237, 3-4=-5565/268, 4-5=-5576/271, 5-6=-5682/239
BOT CHORD   2-8=-195/4614, 7-8=-102/3296, 6-7=-162/4562
WEBS   4-8=-159/3286, 4-7=-163/3309

NOTES-   (9-11)
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
    Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
    Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-8-0 oc.
    Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to
    ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) 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); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
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 100 lb uplift at joint(s) except (jt=lb)
    2=201, 6=189.
8) Girder carries tie-in span(s): 38-0-0 from 0-0-0 to 12-0-0
9) Design checked for ASCE 7-16 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 7-16 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) 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.

LOAD CASE(S) Standard

January 12,2022

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	11_Southeast-Girder-Int	
ORDERS	SE-14546	COMN	1	**2**		I49147402
					Job Reference (optional)	

NVR,   Frederick, MD - 21703,

8.530 s Nov 29 2021 MiTek Industries, Inc. Tue Dec 7 20:30:58 2021 Page 2
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LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
        Vert: 2-6=-734(B=-714), 1-4=-60, 4-6=-60

ENGINEERING BY

TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type		Qty	Ply	11_Southeast-Girder-Int	
ORDERS	SE-14547	COMN		1	**2**		I49147403
						Job Reference (optional)	

NVR,   Frederick, MD - 21703,
8.530 s Nov 29 2021 MiTek Industries, Inc. Tue Dec 7 20:30:59 2021 Page 1
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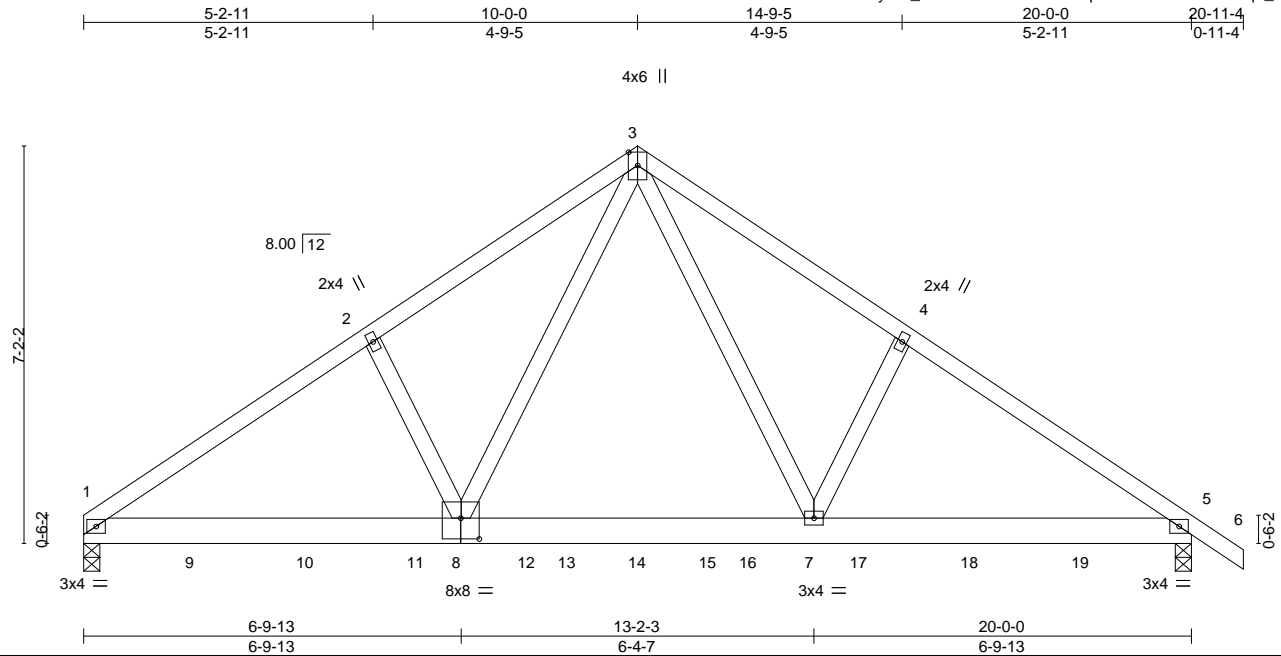
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Plate Offsets (X,Y)-- [8:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.04	1-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.08	1-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S		Wind(LL)	0.03	1-8	>999	240	Weight: 233 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x6 SP No.2
WEBS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   1=0-3-8, 5=0-3-8
          Max Horz 1=-145(LC 4)
          Max Uplift 1=-39(LC 8), 5=-51(LC 9)
          Max Grav 1=1678(LC 1), 5=1746(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-2319/78, 2-3=-2200/132, 3-4=-2194/130, 4-5=-2314/77
BOT CHORD   1-8=-67/1913, 7-8=0/1292, 5-7=-3/1845
WEBS   3-8=-78/1216, 3-7=-77/1207

NOTES-   (9-11)
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to
   ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) 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); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
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 100 lb uplift at joint(s) 1, 5.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 198 lb down and 9 lb up at
   2-0-0, 198 lb down and 9 lb up at 4-0-0, 198 lb down and 9 lb up at 6-0-0, 198 lb down and 9 lb up at 8-0-0, 198 lb down and 9 lb
   up at 10-0-0, 198 lb down and 9 lb up at 12-0-0, 198 lb down and 9 lb up at 14-0-0, and 198 lb down and 9 lb up at 16-0-0, and
   198 lb down and 9 lb up at 18-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of
   others.
9) Design checked for ASCE 7-16 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 7-16 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) 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.

LOAD CASE(S)   Standard

January 12,2022

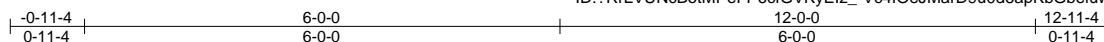| Job	Truss	Truss Type		Qty	Ply	11_Southeast-Girder-Int	
ORDERS	SE-14547	COMN		1	**2**		I49147403
						Job Reference (optional)	

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
       Vert: 1-5=-20, 1-3=-60, 3-6=-60
   Concentrated Loads (lb)
       Vert: 9=-198(F) 10=-198(F) 11=-198(F) 12=-198(F) 14=-198(F) 16=-198(F) 17=-198(F) 18=-198(F) 19=-198(F)

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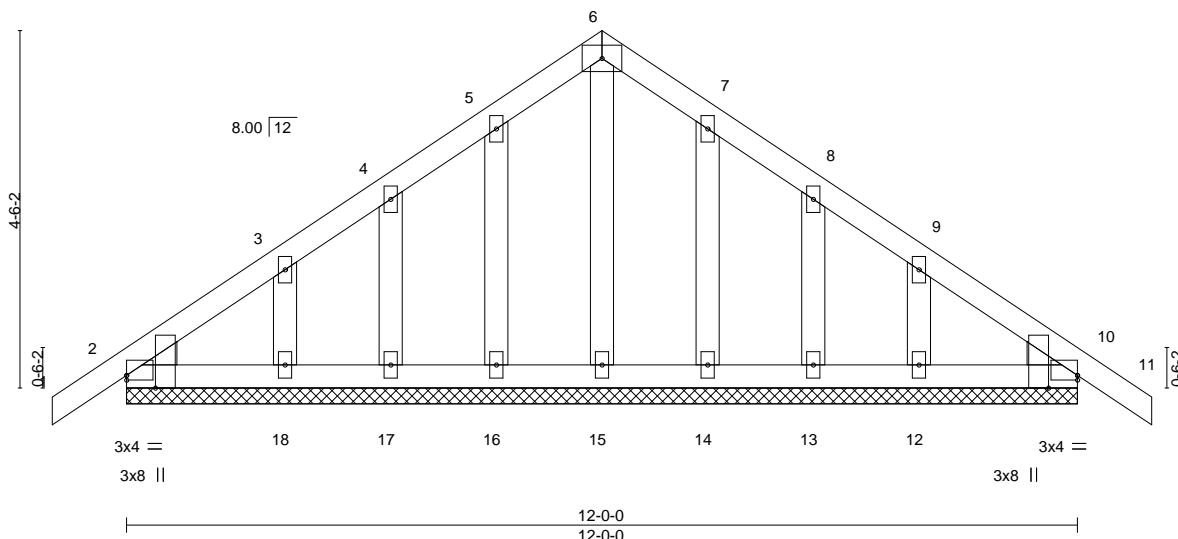818 Soundside Road
Edenton, NC 27932

Scale = 1:29.1

Plate Offsets (X,Y)-- [2:0-0-0,0-0-11], [2:0-1-15,Edge], [10:0-0-0,0-0-11], [10:0-1-15,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	-0.00	10	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S							Weight: 70 lb	FT = 5%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   All bearings 12-0-0.
      (lb) - Max Horz   2=-118(LC 8)
            Max Uplift   All uplift 100 lb or less at joint(s) 2, 10, 16, 17, 18, 14, 13, 12
            Max Grav   All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 18, 14, 13, 12

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

NOTES-   (10-12)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 16, 17, 18,
   14, 13, 12.
10) Design checked for ASCE 7-16 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.
11) Design checked for ASCE 7-16 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.
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.

(Engineer's seal: NORTH CAROLINA PROFESSIONAL SEAL 28228 ENGINEER XUEGANG LIU)

January 12,2022

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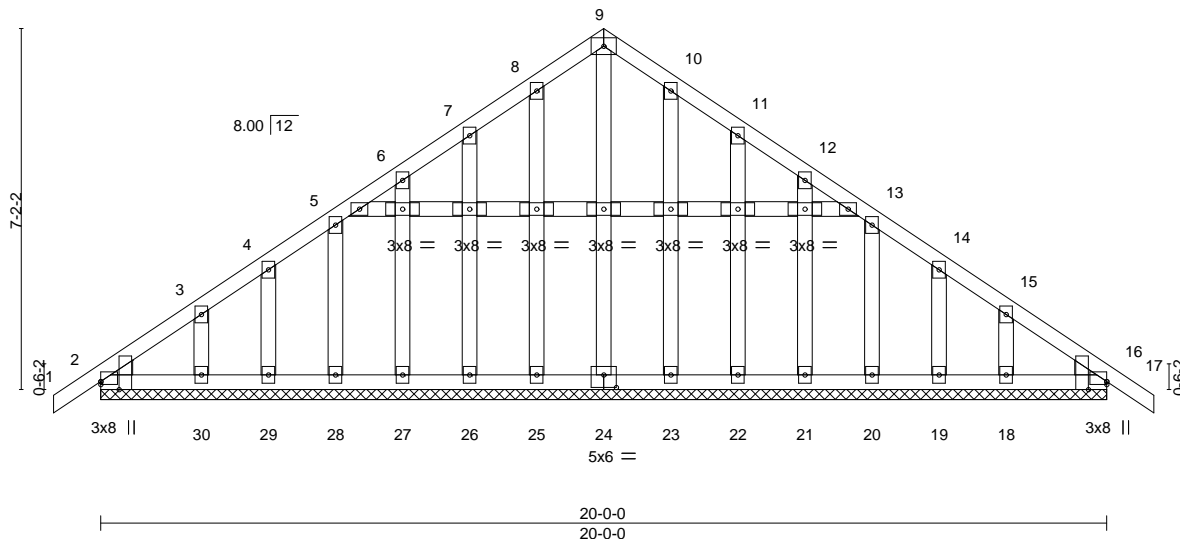A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Scale = 1:45.8

Plate Offsets (X,Y)-- [2:0-0-0,0-0-11], [2:0-1-15,Edge], [16:0-0-0,0-0-11], [16:0-1-15,Edge], [24:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	-0.00	16	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	17	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S							Weight: 155 lb	FT = 5%

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.2 or 2x4 SPF No.2
OTHERS   2x4 SP No.3 or 2x4 SPF Stud
WEDGE
Left: 2x4 SP or SPF No.3 or Stud , Right: 2x4 SP or SPF No.3 or Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   All bearings 20-0-0.
(lb) -   Max Horz 2=-185(LC 8)
         Max Uplift   All uplift 100 lb or less at joint(s) 2, 16, 25, 26, 27, 28, 29, 30, 23,
                  22, 21, 20, 19, 18
         Max Grav   All reactions 250 lb or less at joint(s) 2, 16, 24, 25, 26, 27, 28, 29, 30,
                  23, 22, 21, 20, 19, 18

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

NOTES-   (10-13)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) 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.
4) All plates are 3x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 25, 26, 27,
   28, 29, 30, 23, 22, 21, 20, 19, 18.
10) Design checked for ASCE 7-16 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.
11) Design checked for ASCE 7-16 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.
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.
13) Framing and bracing of the gable end frame shall be provided by the building designer.

January 12,2022

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

Job	Truss	Truss Type	Qty	Ply	10_Southeast	
ORDERS	SE-18452	COMN	1	1		I49194685
					Job Reference (optional)	

NVR, Frederick, MD - 21703,

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Dec 9 20:38:44 2021 Page 1
ID:?RrLVUNcBotMPeFP6cfGVKyEIz_-SwIKQZYs72hTNujDT3N8rC2Z7bfLLjws39s8P8yAar9

6-8-3	12-10-2	19-0-0	25-1-14	31-3-13	38-0-0	38-11-4
6-8-3	6-1-14	6-1-14	6-1-14	6-1-14	6-8-3	0-11-4

Scale = 1:65.0

6.00 ⌐12

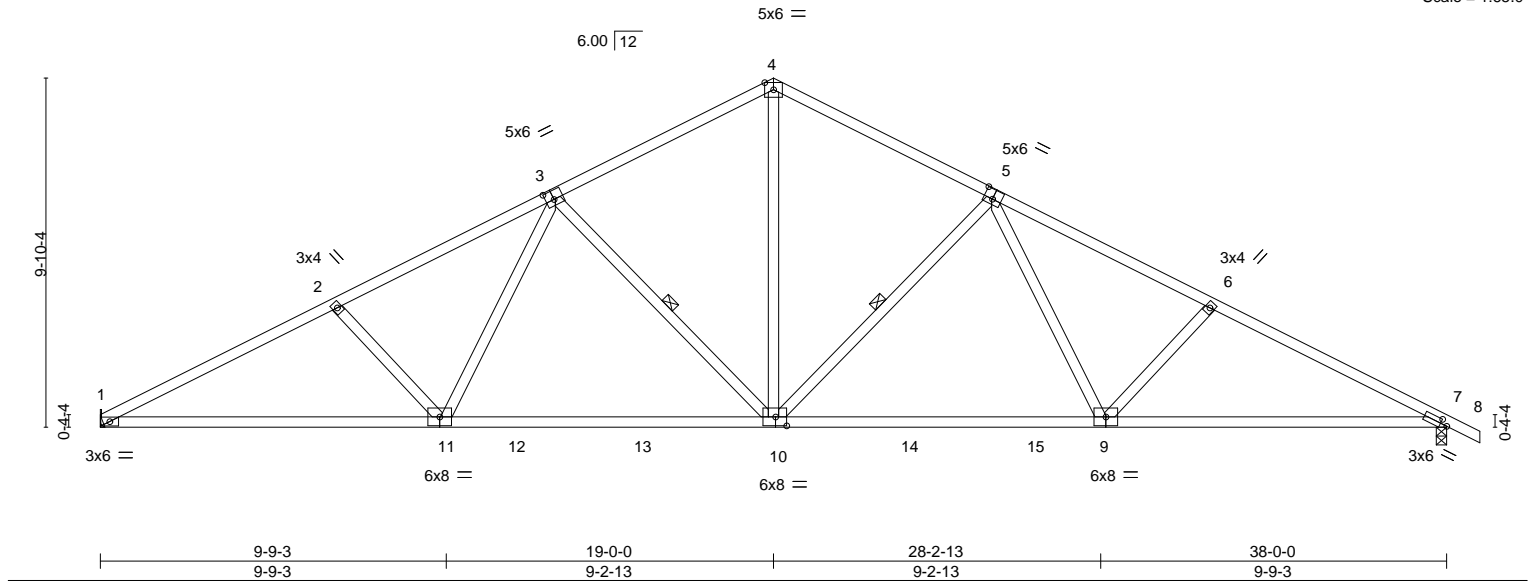| 9-9-3	19-0-0	28-2-13	38-0-0
9-9-3	9-2-13	9-2-13	9-9-3

Plate Offsets (X,Y)-- [3:0-2-12,0-3-0], [5:0-3-0,0-3-4], [7:0-2-5,0-1-8], [10:0-3-12,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.26	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.51	1-11	>897	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.12	7	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S		Wind(LL)	0.13	10	>999	240	Weight: 194 lb	FT = 5%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except*
1-3: 2x4 SP No.2D
BOT CHORD 2x4 SP No.2D *Except*
7-9,1-11: 2x4 SP No.1
WEBS 2x4 SP No.3 or 2x4 SPF Stud

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 3-10, 5-10

REACTIONS. (size) 7=0-3-8, 1=Mechanical
Max Horz 1=-178(LC 11)
Max Uplift 7=-219(LC 11), 1=-195(LC 10)
Max Grav 7=1577(LC 1), 1=1511(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2848/387, 2-3=-2585/356, 3-4=-1783/288, 4-5=-1791/289, 5-6=-2570/352,
6-7=-2820/378
BOT CHORD 1-11=-424/2485, 10-11=-240/1999, 9-10=-96/1991, 7-9=-242/2452
WEBS 2-11=-370/234, 3-11=-56/569, 3-10=-709/267, 4-10=-127/1208, 5-10=-694/266,
5-9=-54/555, 6-9=-347/224

NOTES- (7-9)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
7=219, 1=195.
7) Design checked for ASCE 7-16 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.
8) Design checked for ASCE 7-16 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.
9) 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.

January 12,2022

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

Job	Truss	Truss Type	Qty	Ply	10_Southeast	
ORDERS	SE-18453- **Cond1**	COMN	1	1		I49194686
					Job Reference (optional)	

NVR,   Frederick, MD - 21703,

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Dec 9 20:38:46 2021 Page 1
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Scale = 1:65.6

6.00 ⟌12

Plate Offsets (X,Y)-- [2:0-4-13,0-1-8], [5:0-3-8,0-3-0], [7:0-3-8,0-3-0], [10:0-4-13,0-1-8], [13:0-3-4,0-3-0], [14:0-3-12,0-3-0], [15:0-3-4,0-3-0]

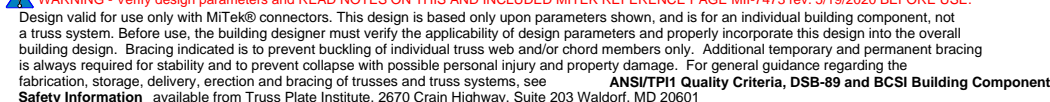| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.20	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.40	13-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S		Wind(LL)	0.09	13	>999	240	Weight: 213 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.2D *Except*
  10-13: 2x4 SP 2250F 1.9E or 2x4 SPF 2100F 1.8E
  2-15: 2x4 SP No.2 or 2x4 SPF No.2
WEBS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-   [MCT]
TOP CHORD   Structural wood sheathing directly applied or 3-4-11 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS   1 Row at midpt   5-14, 7-14

REACTIONS.   (size)   10=0-3-8, 16=0-3-8
  Max Horz 16=171(LC 10)
  Max Uplift 10=-212(LC 11), 16=-237(LC 10)
  Max Grav 10=1437(LC 1), 16=1712(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-111/370, 3-4=-55/371, 4-5=-1644/226, 5-6=-1481/271, 6-7=-1486/249,
            7-8=-2237/335, 8-9=-2565/393, 9-10=-2643/335
BOT CHORD   2-16=-285/136, 15-16=-218/1188, 14-15=-169/1455, 13-14=-60/1715, 12-13=-210/2167,
            10-12=-239/2280
WEBS   4-15=0/393, 5-14=-362/222, 6-14=-115/960, 7-14=-691/274, 7-13=-50/514,
            8-13=-355/194, 4-16=-2001/255

NOTES-   (6-8)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   10=212, 16=237.
6) Design checked for ASCE 7-16 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.
7) Design checked for ASCE 7-16 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.
8) 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.

January 12,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss		Truss Type	Qty	Ply	10_Southeast	
ORDERS	SE-18453-	**Cond2**	COMN	1	1		I49194686
						Job Reference (optional)	

NVR,   Frederick, MD - 21703,

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Dec 9 20:38:47 2021 Page 1
ID:?RrLVUNcBotMPeFP6cfGVKyEIz_-tV_T2aakQz42EMSo8BwrSrgBMph3YzQJI74o?TyAar6

Scale = 1:66.2

Plate Offsets (X,Y)--   [2:0-4-13,0-1-8], [5:0-3-8,0-3-0], [7:0-3-8,0-3-0], [10:0-4-13,0-1-8], [13:0-3-4,0-3-0], [14:0-3-12,0-3-0], [15:0-3-4,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.21	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.42	14-15	>990	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.09	12	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S		Wind(LL)	0.10	15	>999	240	Weight: 213 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.2D *Except*
     10-13: 2x4 SP 2250F 1.9E or 2x4 SPF 2100F 1.8E
     2-15: 2x4 SP No.2 or 2x4 SPF No.2
WEBS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-   [MCT]
TOP CHORD   Structural wood sheathing directly applied or 3-4-11 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS   1 Row at midpt   5-14, 7-14

REACTIONS.   (size)   2=0-3-8, 12=0-3-8
          Max Horz   2=-171(LC 15)
          Max Uplift   2=-212(LC 10), 12=-237(LC 11)
          Max Grav   2=1437(LC 1), 12=1712(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2649/334, 3-4=-2571/392, 4-5=-2231/333, 5-6=-1478/247, 6-7=-1485/271,
                7-8=-1641/226, 8-9=-54/370, 9-10=-109/367
BOT CHORD   2-16=-409/2285, 15-16=-381/2167, 14-15=-228/1715, 13-14=-71/1455, 12-13=-58/1156,
                10-12=-284/135
WEBS   4-15=-358/194, 5-15=-48/513, 5-14=-694/274, 6-14=-114/958, 7-14=-359/222,
                8-13=0/392, 8-12=-2000/253

NOTES-   (6-8)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
     2=212, 12=237.
6) Design checked for ASCE 7-16 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.
7) Design checked for ASCE 7-16 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.
8) 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.

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

Job	Truss	Truss Type	Qty	Ply	10_Southeast	
ORDERS	SE-18454	COMN	1	1		I49194687
					Job Reference (optional)	

NVR, Frederick, MD - 21703,

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Dec 9 20:38:48 2021 Page 1
ID:?RrLVUNcBotMPeFP6cfGVKyEIz_-LhYrFwbMBHCvsV1_ivR4?2CJXD0PHWmS_nqLYvyAar5

	6-8-3	12-10-2	19-0-0	25-1-14	31-3-13	38-0-0	38-11-4
	6-8-3	6-1-14	6-1-14	6-1-14	6-1-14	6-8-3	0-11-4

Scale = 1:66.2

	3-0-0	9-9-3	19-0-0	28-2-13	38-0-0
	3-0-0	6-9-3	9-2-13	9-2-13	9-9-3
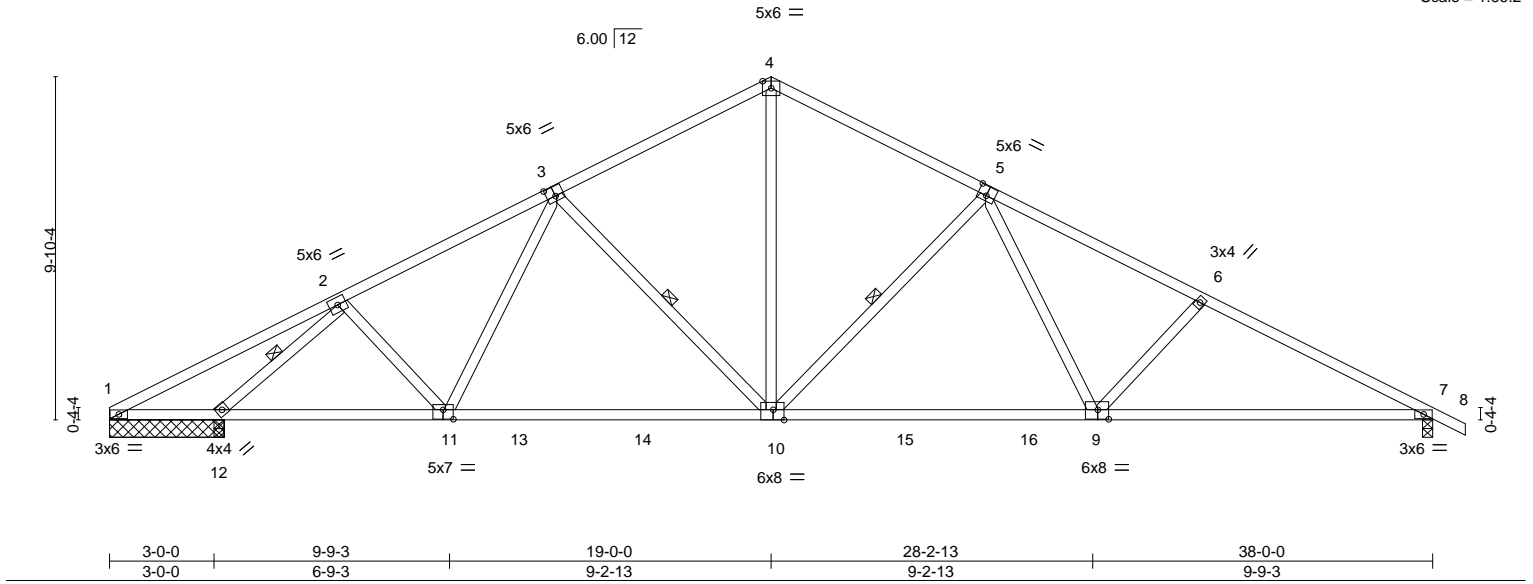
Plate Offsets (X,Y)-- [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [9:0-3-12,0-3-4], [10:0-3-12,Edge], [11:0-3-8,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.24	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.45	7-9	>920	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.09	7	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S		Wind(LL)	0.10	7-9	>999	240	Weight: 201 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.2 or 2x4 SPF No.2 *Except*
7-9: 2x4 SP No.2D
WEBS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 2-4-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS   1 Row at midpt   3-10, 5-10, 2-12

REACTIONS.   All bearings 3-3-8 except (jt=length) 7=0-3-8.
(lb) -   Max Horz   1=-178(LC 11)
Max Uplift   All uplift 100 lb or less at joint(s) except 7=-214(LC 11), 1=-168(LC 26), 12=-219(LC 10)
Max Grav   All reactions 250 lb or less at joint(s) 1 except 7=1436(LC 1), 12=1785(LC 1), 12=1785(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-133/701, 2-3=-1658/251, 3-4=-1475/277, 4-5=-1481/254, 5-6=-2261/343,
6-7=-2513/368
BOT CHORD   1-12=-540/196, 11-12=-259/1183, 10-11=-175/1446, 9-10=-62/1714, 7-9=-233/2179
WEBS   2-11=0/385, 3-10=-372/222, 4-10=-116/944, 5-10=-694/267, 5-9=-56/552, 6-9=-350/224,
2-12=-2367/367

NOTES-   (6-8)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 214 lb uplift at joint 7, 168 lb uplift at
joint 1 and 219 lb uplift at joint 12.
6) Design checked for ASCE 7-16 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.
7) Design checked for ASCE 7-16 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.
8) 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.

January 12,2022

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

Job	Truss		Truss Type	Qty	Ply	10_Southeast	
ORDERS	SE-18455-	**Cond1**	COMN	1	1		I49194688
						Job Reference (optional)	

NVR,   Frederick, MD - 21703,

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Dec 9 20:38:51 2021 Page 1
ID:?RrLVUNcBotMPeFP6cfGVKyEIz_-lGD_uydFUCaUjzmZN1?ndhqsrQ4hUuwugl208EyAar2

	6-8-3	12-10-2	19-0-0	25-1-14	31-3-13	38-0-0	38-11-4
	6-8-3	6-1-14	6-1-14	6-1-14	6-1-14	6-8-3	0-11-4
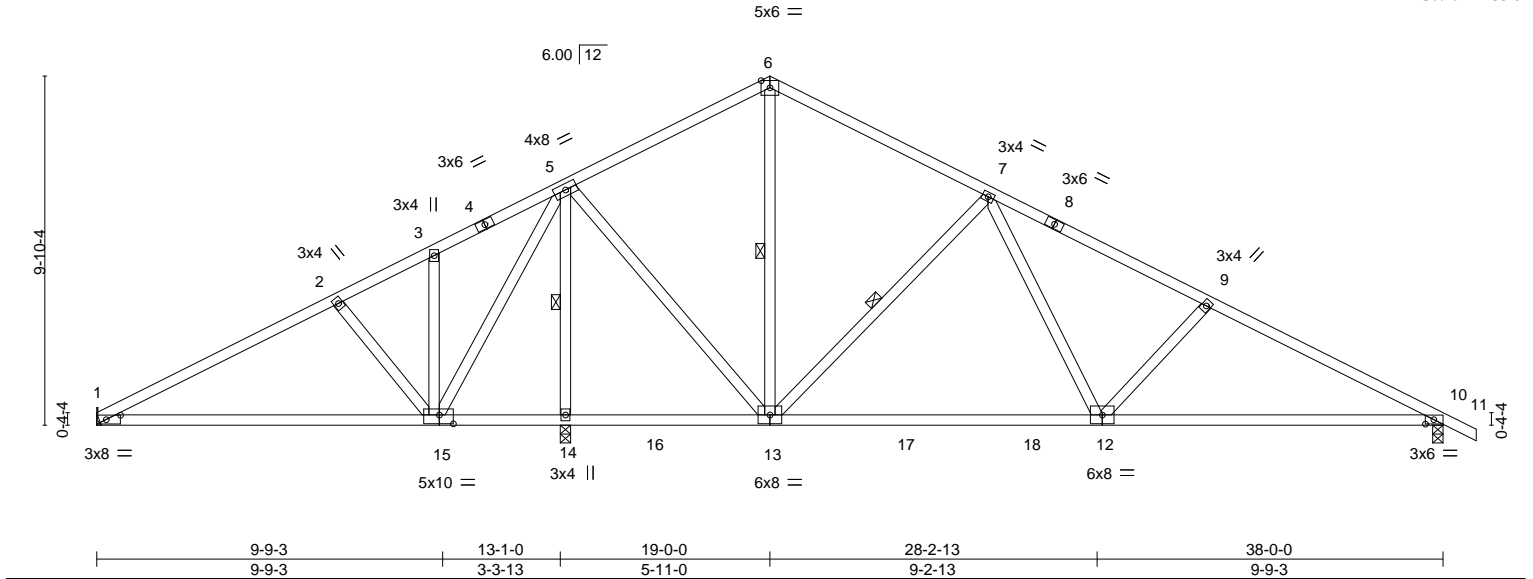
Scale = 1:65.0

	9-9-3	13-1-0	19-0-0	28-2-13	38-0-0
	9-9-3	3-3-13	5-11-0	9-2-13	9-9-3

Plate Offsets (X,Y)--   [1:0-4-13,0-1-8], [10:0-2-13,0-1-8], [15:0-4-12,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.24	1-15	>654	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.51	1-15	>311	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S		Wind(LL)	0.07	10-12	>999	240	Weight: 210 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.2 or 2x4 SPF No.2 *Except*
     10-12: 2x4 SP No.1, 12-13: 2x4 SP No.2D
WEBS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-   [MCT]
TOP CHORD   Structural wood sheathing directly applied or 3-10-14 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS   1 Row at midpt   6-13, 7-13, 5-14

REACTIONS.   (size)   10=0-3-8, 1=Mechanical, 14=0-3-8
        Max Horz 1=-178(LC 11)
        Max Uplift 10=-178(LC 11), 1=-43(LC 10), 14=-234(LC 10)
        Max Grav 10=936(LC 1), 1=379(LC 23), 14=1842(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-359/138, 5-6=-360/200, 6-7=-366/176, 7-9=-1176/263, 9-10=-1432/289
BOT CHORD   1-15=-122/270, 14-15=-398/234, 13-14=-398/234, 12-13=0/732, 10-12=-163/1220
WEBS   2-15=-385/222, 5-15=-115/591, 5-13=-58/984, 7-13=-710/266, 7-12=-53/581,
        9-12=-364/226, 5-14=-1800/253

NOTES-   (7-9)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 10, 43 lb uplift at
   joint 1 and 234 lb uplift at joint 14.
7) Design checked for ASCE 7-16 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.
8) Design checked for ASCE 7-16 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.
9) 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.

January 12,2022

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

Job	Truss	Truss Type	Qty	Ply	10_Southeast	
ORDERS	SE-18455- **Cond2**	COMN	1	1		I49194688
					Job Reference (optional)	

NVR,   Frederick, MD - 21703,
8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Dec 9 20:38:51 2021 Page 1
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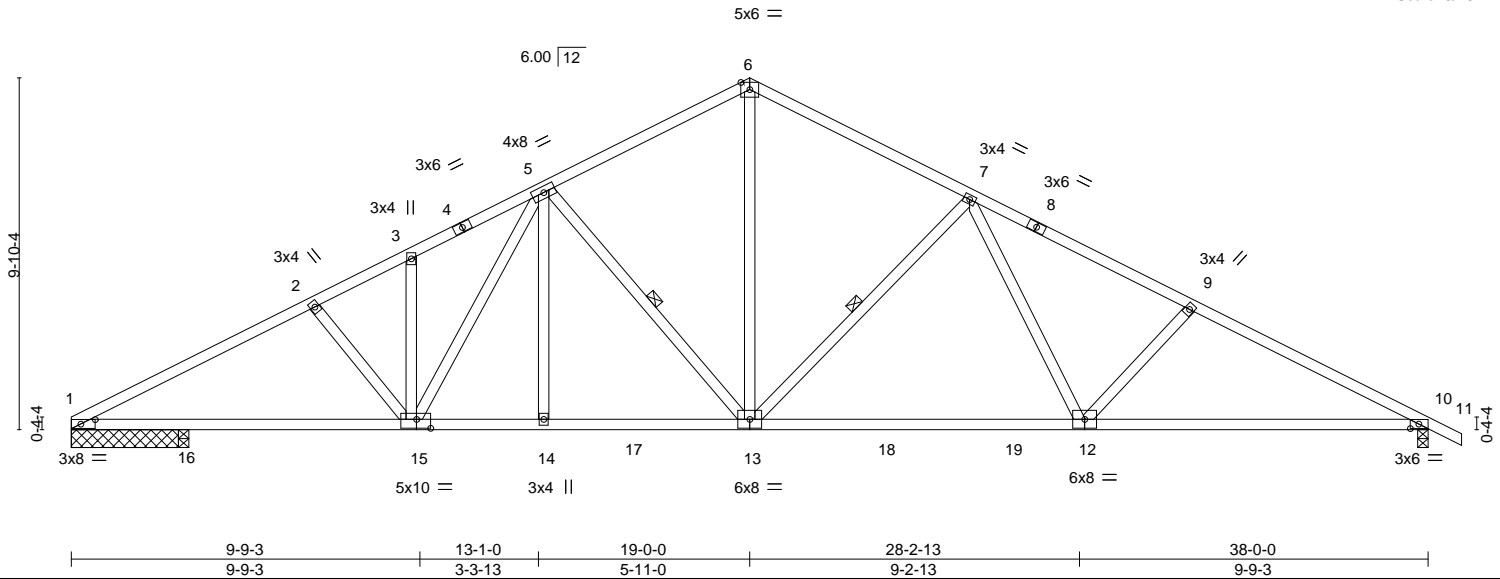
Scale = 1:63.3

Plate Offsets (X,Y)-- [1:0-4-13,0-1-8], [10:0-2-13,0-1-8], [15:0-4-12,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.23	1-15	>501	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.47	1-15	>243	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.03	10	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S		Wind(LL)	0.08	10-12	>999	240	Weight: 210 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.2 or 2x4 SPF No.2 *Except*
    10-12: 2x4 SP No.1, 12-13: 2x4 SP No.2D
WEBS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-   [MCT]
TOP CHORD   Structural wood sheathing directly applied or 3-4-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing,   Except:
    6-0-0 oc bracing: 1-15.
WEBS   1 Row at midpt   5-15, 7-13

REACTIONS.   (size)   15=0-3-8, 10=0-3-8, 1=Mechanical
        Max Horz 1=-178(LC 11)
        Max Uplift 15=-250(LC 10), 10=-192(LC 11), 1=-26(LC 24)
        Max Grav 15=1863(LC 1), 10=1104(LC 1), 1=205(LC 23)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-59/377, 2-3=-76/524, 3-5=-41/602, 5-6=-731/229, 6-7=-740/206, 7-9=-1542/292,
    9-10=-1796/318
BOT CHORD   1-15=-301/192, 14-15=0/307, 13-14=0/307, 12-13=-14/1062, 10-12=-189/1543
WEBS   2-15=-378/221, 5-15=-1472/162, 5-13=-24/559, 6-13=-74/330, 7-13=-705/265,
    7-12=-52/575, 9-12=-358/225

NOTES-   (7-9)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 250 lb uplift at joint 15, 192 lb uplift at
   joint 10 and 26 lb uplift at joint 1.
7) Design checked for ASCE 7-16 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.
8) Design checked for ASCE 7-16 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.
9) 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.

Scale: 3/16"=1'

Plate Offsets (X,Y)-- [1:0-4-13,0-1-8], [10:0-2-13,0-1-8], [15:0-4-12,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.30	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.54	12-13	>776	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.12	10	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S		Wind(LL)	0.14	14-15	>999	240	Weight: 210 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.2 or 2x4 SPF No.2 *Except*
10-12: 2x4 SP No.1, 12-13: 2x4 SP No.2D
WEBS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-   [MCT]
TOP CHORD   Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS   1 Row at midpt   5-13, 7-13

REACTIONS.   (size)   10=0-3-8, 1=3-0-0, 16=0-3-8
Max Horz   1=-178(LC 15)
Max Uplift   10=-224(LC 11), 1=-228(LC 10)
Max Grav   10=1561(LC 1), 1=1307(LC 1), 16=296(LC 3)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-2696/414, 2-3=-2435/375, 3-5=-2383/411, 5-6=-1740/300, 6-7=-1749/298,
7-9=-2537/362, 9-10=-2787/387
BOT CHORD   1-16=-447/2326, 15-16=-447/2326, 14-15=-233/1913, 13-14=-233/1913, 12-13=-103/1959,
10-12=-250/2422
WEBS   2-15=-330/221, 5-15=-144/433, 5-13=-668/258, 6-13=-140/1156, 7-13=-699/264,
7-12=-51/566, 9-12=-347/224

NOTES-   (6-8)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 10 and 228 lb uplift
at joint 1.
6) Design checked for ASCE 7-16 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.
7) Design checked for ASCE 7-16 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.
8) 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.

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Edenton, NC 27932

6-8-3	12-10-2	19-0-0	25-1-14	31-3-13	38-0-0	38-11-4
6-8-3	6-1-14	6-1-14	6-1-14	6-1-14	6-8-3	0-11-4

Scale = 1:66.7

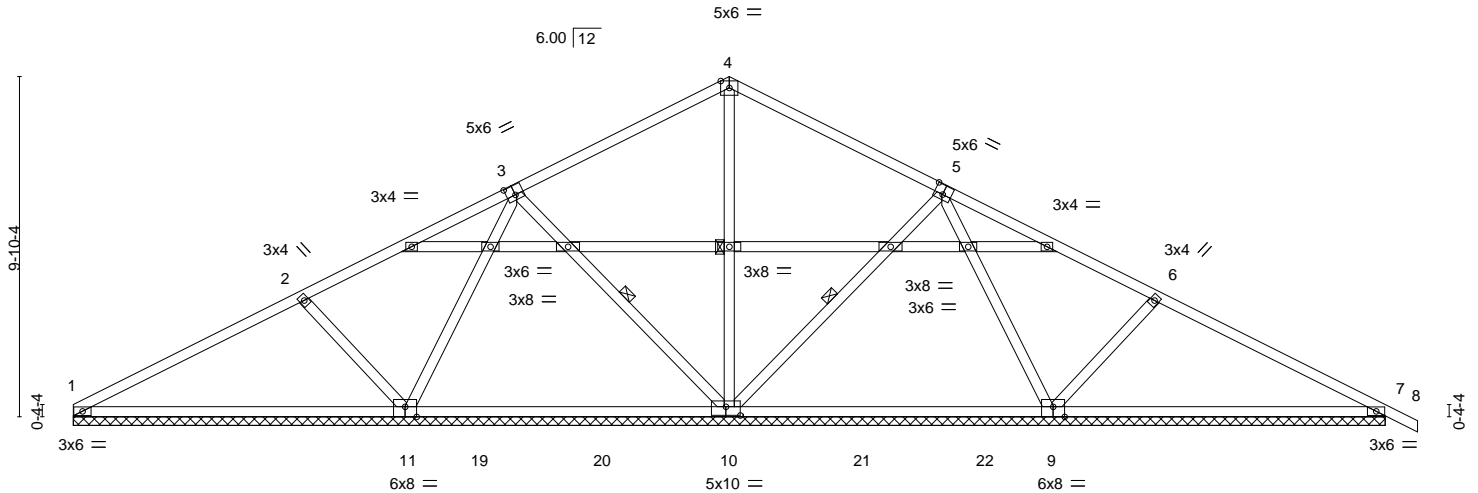| 9-9-3	19-0-0	28-2-13	38-0-0
9-9-3	9-2-13	9-2-13	9-9-3

Plate Offsets (X,Y)-- [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [9:0-4-0,Edge], [10:0-5-0,0-3-0], [11:0-4-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	0.03	8	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	0.07	8	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S							Weight: 221 lb	FT = 5%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing,   Except:
             6-0-0 oc bracing: 10-11.
WEBS   1 Row at midpt   3-10, 4-10, 5-10

REACTIONS.   All bearings 38-0-0.
   (lb) - Max Horz 1=-178(LC 15)
           Max Uplift   All uplift 100 lb or less at joint(s) 10, 7, 1 except 11=-175(LC 10), 9=-158(LC 11)
           Max Grav   All reactions 250 lb or less at joint(s) except 11=834(LC 23), 10=764(LC 2), 9=837(LC 24), 7=380(LC
                       24), 1=320(LC 23)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-11=-402/239, 3-11=-359/131, 4-10=-386/50, 5-9=-364/116, 6-9=-397/233

NOTES-   (7-9)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) Gable requires continuous bottom chord bearing.
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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7, 1 except
   (jt=lb) 11=175, 9=158.
7) Design checked for ASCE 7-16 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.
8) Design checked for ASCE 7-16 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.
9) 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.

November 9,2022

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

ID:?RrLVUNcBotMPeFP6cfGVKyEIz_-nGICV7te7riE?WUEuH_hc?uWJWVgnYmb9HLArDyLGth

Scale = 1:66.7

Plate Offsets (X,Y)-- [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [9:0-4-0,Edge], [10:0-5-0,0-3-0], [11:0-4-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	0.03	8	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	0.07	8	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IBC2021/TPI2014		Matrix-S							Weight: 221 lb	FT = 5%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
            6-0-0 oc bracing: 10-11.
WEBS   1 Row at midpt   3-10, 4-10, 5-10

REACTIONS.   All bearings 38-0-0.
        (lb) - Max Horz 1=-178(LC 15)
        Max Uplift   All uplift 100 lb or less at joint(s) 10, 7, 1 except 11=-175(LC 10), 9=-158(LC 11)
        Max Grav   All reactions 250 lb or less at joint(s) except 11=834(LC 23), 10=764(LC 2), 9=837(LC 24), 7=380(LC 24), 1=320(LC 23)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-11=-402/239, 3-11=-359/131, 4-10=-386/50, 5-9=-364/116, 6-9=-397/233

NOTES-   (7-10)
1) Unbalanced roof live loads have been considered for this design.
2) 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(2) 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
3) Gable requires continuous bottom chord bearing.
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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7, 1 except (jt=lb) 11=175, 9=158.
7) Design checked for ASCE 7-16 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.
8) Design checked for ASCE 7-16 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.
9) 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.
10) Framing and bracing of the gable end frame shall be provided by the building designer.

November 9,2022

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

Job	Truss	Truss Type	Qty	Ply	02_Valley	
ORDERS	VT-00861	VCOM	1	1		I54705066
					Job Reference (optional)	

NVR, Frederick, MD - 21703,
8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Oct 13 12:35:37 2022 Page 1
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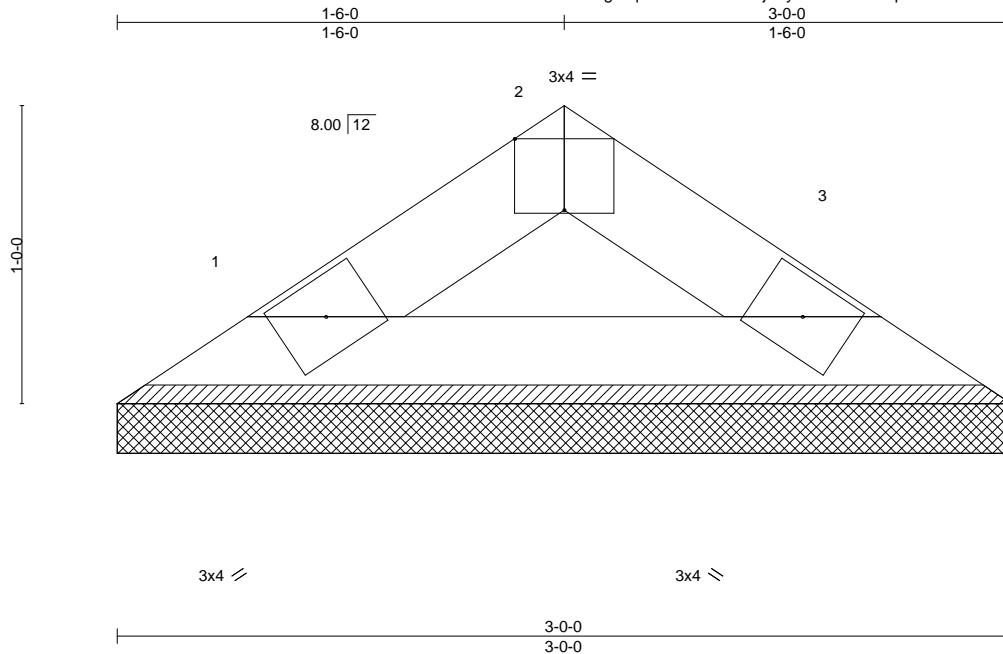
1-6-0 | 3-0-0
1-6-0 | 1-6-0

Scale = 1:7.7

3x4 ═
2

8.00 ⎡12

3

1

1-0-0

3x4 ⫽   3x4 ⟍

3-0-0
3-0-0

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

LOADING (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 30.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow=30.0)	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL 0.0	Code IBC2021/TPI2014		Matrix-P								
BCDL 10.0										Weight: 8 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.3 or 2x4 SPF Stud
BOT CHORD   2x4 SP No.3 or 2x4 SPF Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size) 1=3-0-0, 3=3-0-0
                Max Horz 1=23(LC 11)
                Max Uplift 1=-22(LC 12), 3=-22(LC 13)
                Max Grav 1=108(LC 18), 3=108(LC 19)

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

NOTES-   (7)
1) Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Corner(3E) 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) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

October 13,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	02_Valley	
ORDERS	VT-00862	VCOM	1	1		I54705067
					Job Reference (optional)	

NVR, Frederick, MD - 21703,
8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Oct 13 12:35:38 2022 Page 1
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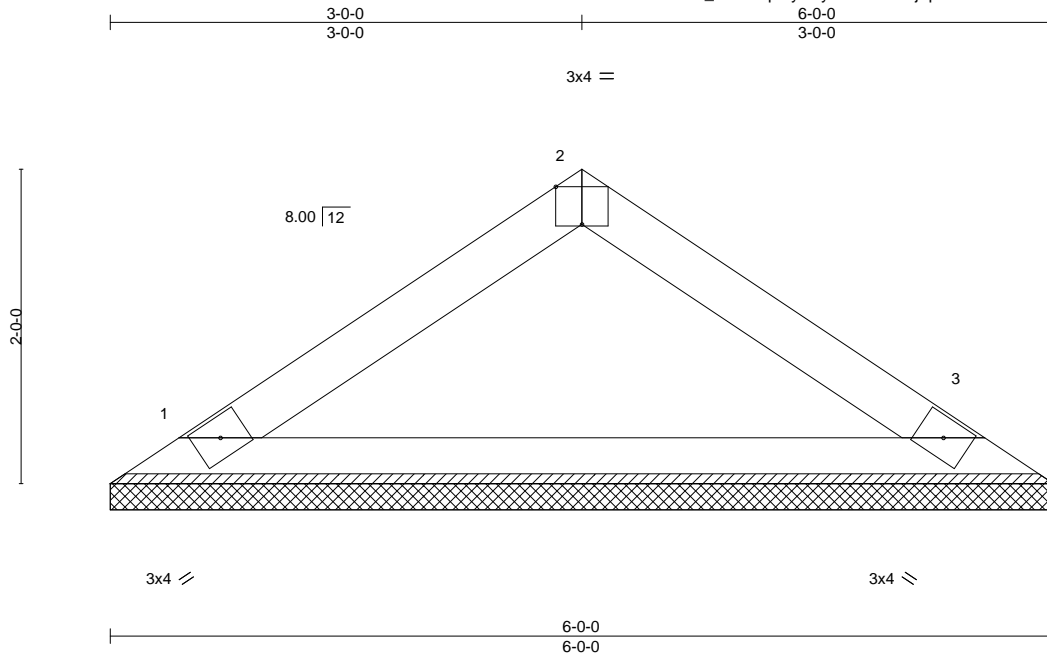
3-0-0
3-0-0
6-0-0
3-0-0

3x4 ═

Scale = 1:14.7

8.00 [12]

2-0-0

2

1

3

3x4 ⟋

3x4 ⟍

6-0-0
6-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow=30.0)		Lumber DOL	1.15	BC	0.55	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code IBC2021/TPI2014		Matrix-P								
BCDL	10.0										Weight: 18 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.3 or 2x4 SPF Stud
BOT CHORD   2x4 SP No.3 or 2x4 SPF Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   1=6-0-0, 3=6-0-0
                Max Horz 1=58(LC 9)
                Max Uplift 1=-54(LC 12), 3=-54(LC 13)
                Max Grav 1=292(LC 18), 3=292(LC 19)

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

NOTES-   (7)
1) Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Corner(3E) 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) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

October 13,2022

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	02_Valley	
ORDERS	VT-00863	VCOM	1	1		I54705068
					Job Reference (optional)	

NVR,   Frederick, MD - 21703,
8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Oct 13 12:35:39 2022 Page 1
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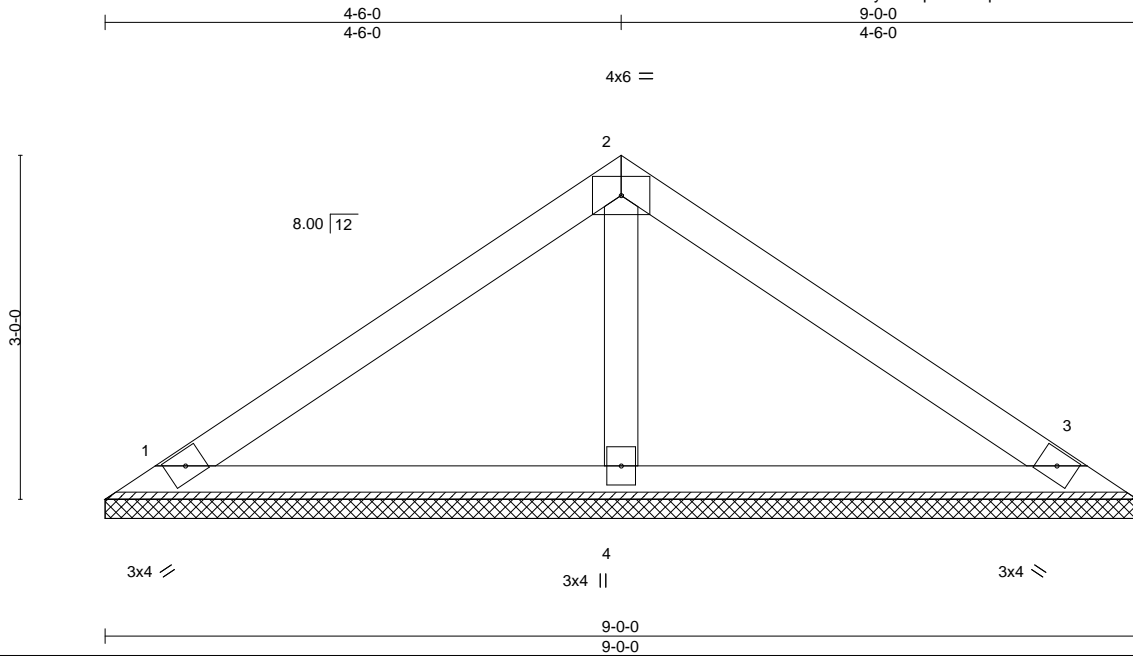
4-6-0 | 9-0-0
4-6-0 | 4-6-0

4x6

Scale = 1:20.1

8.00 |12

3-0-0

9-0-0
9-0-0

3x4 //
3x4 ||
3x4 \\

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	n/a	-	n/a	999		MT20	197/144
(Roof Snow=30.0)		Lumber DOL	1.15	BC	0.28	Vert(CT)	n/a	-	n/a	999			
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	3	n/a	n/a			
BCLL	0.0	Code IBC2021/TPI2014		Matrix-S									
BCDL	10.0											Weight: 31 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.3 or 2x4 SPF Stud
OTHERS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   1=9-0-0, 3=9-0-0, 4=9-0-0
Max Horz   1=-92(LC 8)
Max Uplift   1=-73(LC 12), 3=-86(LC 13), 4=-27(LC 12)
Max Grav   1=312(LC 18), 3=312(LC 19), 4=364(LC 18)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-4=-264/218

NOTES-   (7)
1) Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 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) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
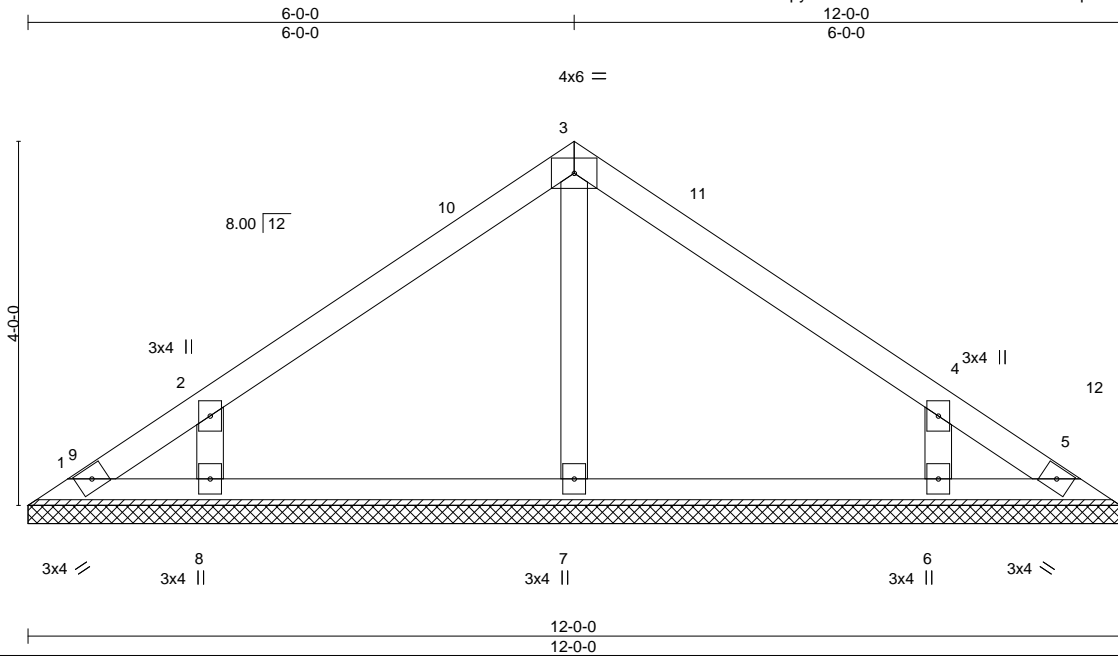
NORTH CAROLINA
PROFESSIONAL
SEAL
28228
ENGINEER
LUEGANG LI

October 13,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	02_Valley	
ORDERS	VT-00864	VCOM	1	1		I54705069
					Job Reference (optional)	

NVR, Frederick, MD - 21703,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Oct 13 12:35:40 2022 Page 1
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Scale = 1:25.3

LOADING (psf)
TCLL   30.0
(Roof Snow=30.0)
TCDL   10.0
BCLL   0.0
BCDL   10.0

SPACING-
Plate Grip DOL   2-0-0
Plate Grip DOL   1.15
Lumber DOL   1.15
Rep Stress Incr   YES
Code IBC2021/TPI2014

CSI.
TC   0.64
BC   0.21
WB   0.13
Matrix-S

DEFL.
	in	(loc)	l/defl	L/d
Vert(LL)	n/a	-	n/a	999
Vert(CT)	n/a	-	n/a	999
Horz(CT)	0.00	5	n/a	n/a

PLATES   GRIP
MT20   197/144

Weight: 45 lb   FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.3 or 2x4 SPF Stud
BOT CHORD   2x4 SP No.3 or 2x4 SPF Stud
OTHERS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   All bearings 12-0-0.
(lb) -   Max Horz 1=-127(LC 8)
         Max Uplift   All uplift 100 lb or less at joint(s) 1, 5 except 8=-210(LC 12), 6=-209(LC 13)
         Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=341(LC 19), 8=561(LC 18), 6=561(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   3-7=-255/83, 2-8=-507/413, 4-6=-507/413

NOTES-   (7)
1) Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Corner(3E) 0-5-12 to 4-10-8, Corner(3R) 4-10-8 to 7-1-8, Corner(3E) 7-1-8 to 11-6-4
   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) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb)
   8=210, 6=209.

October 13,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	02_Valley	
ORDERS	VT-00865	VCOM	1	1		I54705070
					Job Reference (optional)	

NVR,   Frederick, MD - 21703,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Oct 13 12:35:41 2022 Page 1
ID:dhwA6BPOpssY?jdj1xvfT1yUXxj-I4F?LHs19?Fs4A?iCA9JnLJ?D1yq_fD8xWkAXyyTqEG

7-6-0
7-6-0
15-0-0
7-6-0

4x6

Scale = 1:31.4

8.00 12

15-0-0
15-0-0

Plate Offsets (X,Y)--   [8:0-2-0,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow=30.0)		Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code IBC2021/TPI2014		Matrix-S								
BCDL	10.0										Weight: 59 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.3 or 2x4 SPF Stud
BOT CHORD   2x4 SP No.3 or 2x4 SPF Stud
OTHERS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   All bearings 15-0-0.
     (lb) - Max Horz 1=-161(LC 8)
             Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=-230(LC 12), 6=-230(LC 13)
             Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=334(LC 18), 9=592(LC 18), 6=592(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   3-7=-254/22, 2-9=-512/383, 4-6=-512/383

NOTES- (7)
1) Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Corner(3E) 0-5-12 to 4-10-8, Corner(3R) 4-10-8 to 10-1-8, Corner(3E) 10-1-8 to 14-6-4
   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) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb)
   9=230, 6=230.

October 13,2022
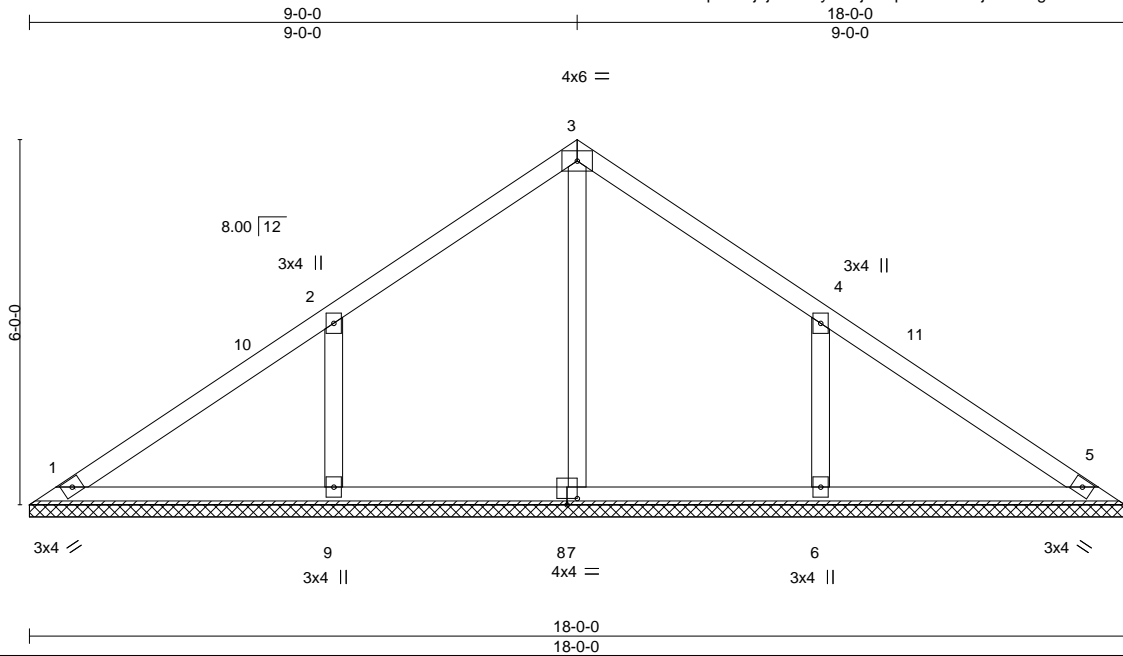
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	02_Valley	
ORDERS	VT-00866	VCOM	1	1		I54705071
					Job Reference (optional)	

NVR, Frederick, MD - 21703,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Oct 13 12:35:42 2022 Page 1
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9-0-0
18-0-0
9-0-0
9-0-0

Scale = 1:37.9

4x6

8.00 12

3x4

3x4

6-0-0

3x4

3x4

3x4

9
3x4

87
4x4

6
3x4

3x4

18-0-0
18-0-0

Plate Offsets (X,Y)-- [8:0-2-0,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow=30.0)		Lumber DOL	1.15	BC	0.28	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code IBC2021/TPI2014		Matrix-S								
BCDL	10.0										Weight: 74 lb	FT = 5%

LUMBER-
TOP CHORD   2x4 SP No.3 or 2x4 SPF Stud
BOT CHORD   2x4 SP No.3 or 2x4 SPF Stud
OTHERS   2x4 SP No.3 or 2x4 SPF Stud

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   All bearings 18-0-0.
     (lb) - Max Horz 1=195(LC 11)
             Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=-281(LC 12), 6=-281(LC 13)
             Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=300(LC 18), 9=686(LC 18), 6=686(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-9=-576/406, 4-6=-576/406

NOTES-   (7)
1) Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Corner(3E) 0-5-12 to 5-0-0, Corner(3R) 5-0-0 to 13-0-0, Corner(3E) 13-0-0 to 17-6-4
   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) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb)
   9=281, 6=281.

October 13,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932