ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0223-0831
Freedom/Campbell-Thomas/Harnett

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Pages or sheets covered by this seal: I56796802 thru I56796830

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844

February 23,2023

Gilbert, Eric

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	A1	GABLE	1	1	I56796802
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:01 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-B__XuVUne8O3MgqeeyQwjBP89ECVX82QyXhsycziZtS

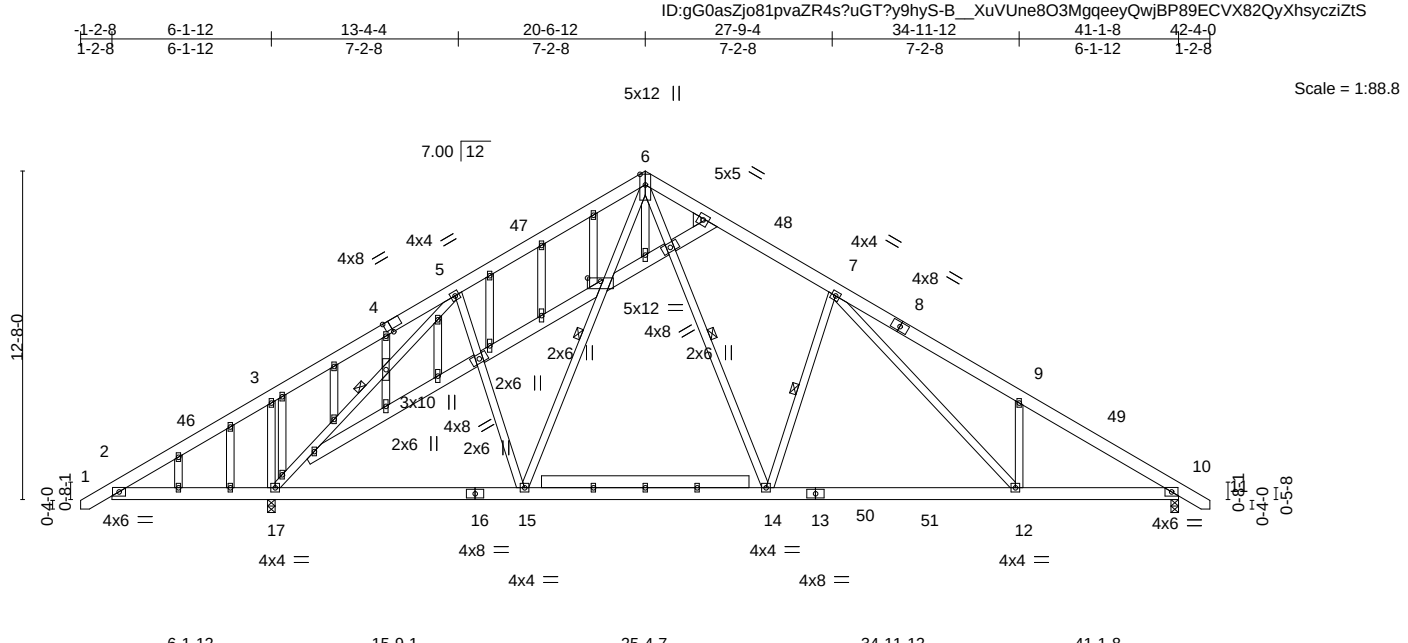


Plate Offsets (X,Y)-- [4:0-2-12,Edge], [20:0-6-0,0-1-8]

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	0.27	Vert(LL)	-0.14	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.24	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.04	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.07	12-14	>999	240	Weight: 415 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 18-19,19-20,20-21,21-22: 2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-11-13 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-17.
WEBS	1 Row at midpt 6-14, 7-14, 6-15, 5-17

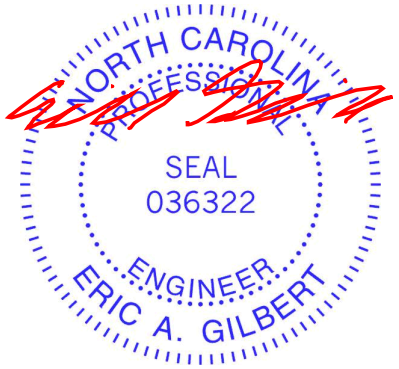
REACTIONS. (size) 17=0-3-8, 10=0-3-8
Max Horz 17=378(LC 11)
Max Uplift 17=-421(LC 12), 10=-325(LC 13)
Max Grav 17=2001(LC 1), 10=1493(LC 20)

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

TOP CHORD	2-3=-438/564, 3-5=-249/550, 5-6=-1306/394, 6-7=-1625/513, 7-9=-2420/663, 9-10=-2401/452
BOT CHORD	2-17=-386/457, 15-17=-159/1025, 14-15=-15/1002, 12-14=-90/1430, 10-12=-268/1945
WEBS	6-14=-335/1129, 7-14=-731/449, 7-12=-305/833, 9-12=-389/326, 5-15=-69/312, 5-17=-1805/477, 3-17=-514/359

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-8 to 3-4-5, Interior(1) 3-4-5 to 20-6-12, Exterior(2) 20-6-12 to 24-11-9, Interior(1) 24-11-9 to 42-2-0 zone; cantilever left 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 studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 421 lb uplift at joint 17 and 325 lb uplift at joint 10.



February 23,2023

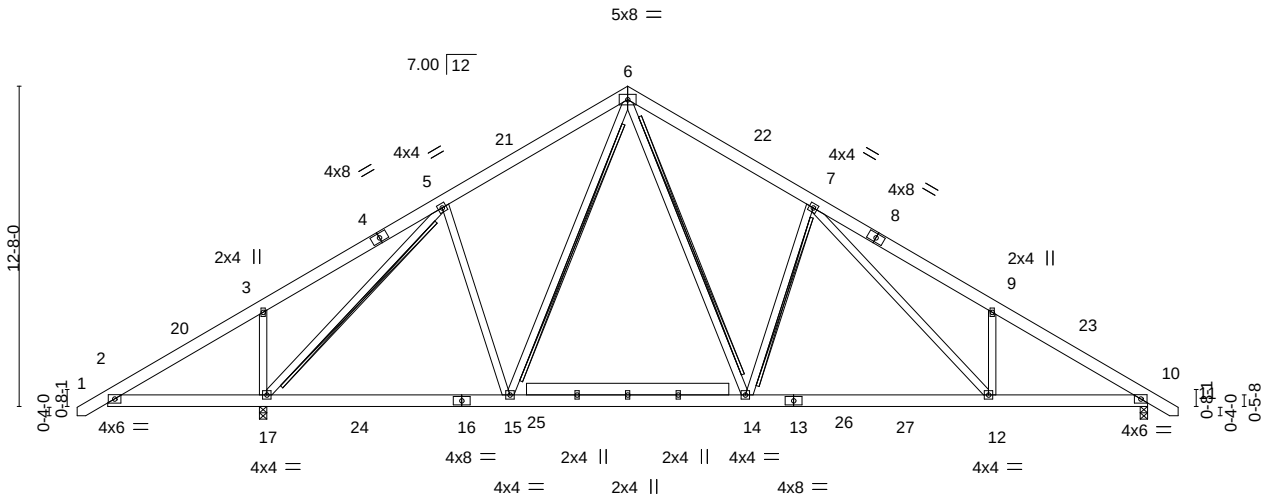
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	A2	COMMON	1	1	I56796803
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:02 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-fAYv6rVPPSWw_qPqBgx9GPyJveYQGfpZBBQPU3ziZtR

-1-2-8	6-1-12	13-4-4	20-6-12	27-9-4	34-11-12	41-1-8	42-4-0
1-2-8	6-1-12	7-2-8	7-2-8	7-2-8	7-2-8	6-1-12	1-2-8

Scale = 1:91.1



6-1-12	15-9-1	25-4-7	34-11-12	41-1-8
6-1-12	9-7-5	9-7-6	9-7-5	6-1-12

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	0.27	Vert(LL)	-0.16	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.25	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.04	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.05	12-14	>999	240	Weight: 334 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

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, Except:
6-0-0 oc bracing: 2-17.
WEBS T-Brace: 2x4 SPF No.2 - 6-14, 7-14, 6-15
2x6 SPF No.2 - 5-17
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. (size) 17=0-3-8, 10=0-3-8
Max Horz 17=-302(LC 10)
Max Uplift 17=-127(LC 12), 10=-107(LC 13)
Max Grav 17=2011(LC 19), 10=1519(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-438/564, 3-5=-249/550, 5-6=-1306/341, 6-7=-1667/440, 7-9=-2474/515, 9-10=-2465/344
BOT CHORD 2-17=-386/457, 15-17=-26/1094, 14-15=0/1047, 12-14=-41/1492, 10-12=-170/2002
WEBS 6-14=-214/1081, 7-14=-710/327, 7-12=-195/818, 9-12=-389/247, 5-15=-41/307, 5-17=-1805/477, 3-17=-514/299

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-8 to 3-4-5, Interior(1) 3-4-5 to 20-6-12, Exterior(2) 20-6-12 to 24-11-9, Interior(1) 24-11-9 to 42-2-0 zone; cantilever left 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 30.0psf 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 127 lb uplift at joint 17 and 107 lb uplift at joint 10.
6) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

February 23,2023

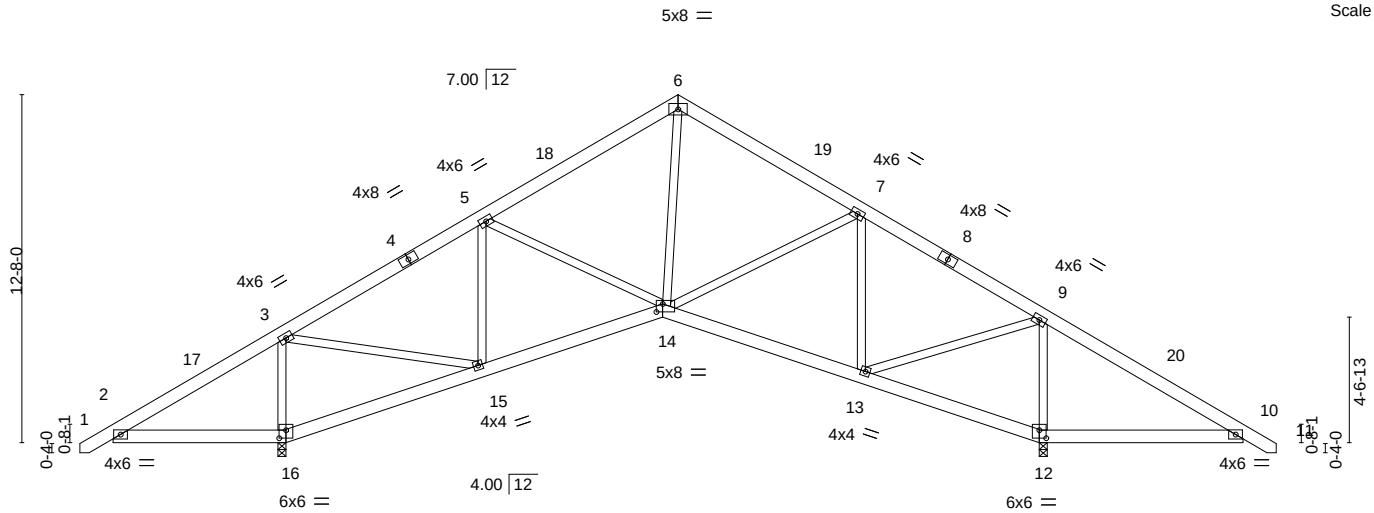
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	A3	ROOF SPECIAL	8	1	I56796804
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:03 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-7M6HJAW1Alenbzz0lNSOocUUI2yR?9gjPrAy1VziZtQ

1-2-8	6-3-8	13-5-2	20-6-12	27-2-13	33-8-8	33-10-14	41-1-8	42-4-0
1-2-8	6-3-8	7-1-10	7-1-10	6-8-1	6-5-11	0-2-6	7-2-10	1-2-8

Scale = 1:83.9



6-1-12	6-3-8	13-5-2	20-0-0	27-2-13	33-8-8	33-10-4	41-1-8
6-1-12	0-1-12	7-1-10	6-6-14	7-2-13	6-5-11	0-1-12	7-3-4

Plate Offsets (X,Y)-- [12:0-3-0,0-3-8], [14:0-2-12,0-3-8], [16:0-3-0,0-3-8]

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	0.29	Vert(LL)	-0.03	14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.07	13-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.04	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.02	14	>999	240	Weight: 299 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS. (size) 16=0-3-8, 12=0-3-8
Max Horz 16=302(LC 11)
Max Uplift 16=-129(LC 12), 12=-134(LC 13)
Max Grav 16=1637(LC 1), 12=1777(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-440/609, 3-5=-968/103, 5-6=-966/104, 6-7=-945/127, 7-9=-783/85, 9-10=-499/718
BOT CHORD 2-16=-423/460, 15-16=-619/507, 14-15=-112/985, 13-14=0/632, 12-13=-601/585, 10-12=-507/522
WEBS 3-16=-1329/393, 3-15=-135/1193, 5-15=-471/176, 6-14=-4/537, 7-14=-111/270, 7-13=-579/205, 9-13=-144/1127, 9-12=-1435/433

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-8 to 3-4-5, Interior(1) 3-4-5 to 20-6-12, Exterior(2) 20-6-12 to 24-11-9, Interior(1) 24-11-9 to 42-2-0 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 30.0psf 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 129 lb uplift at joint 16 and 134 lb uplift at joint 12.

February 23,2023

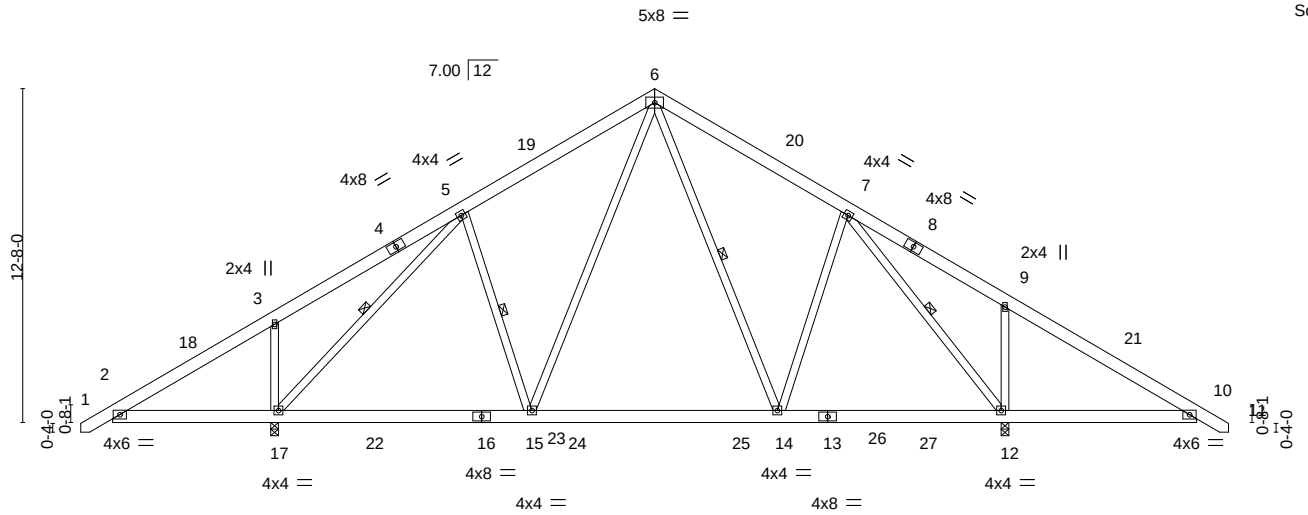
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	A4	COMMON	6	1	I56796805
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:04 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-bYgfWWXfx3meD7YCJ4zdLq1fCSEnkYFseVvWZxziZtP

-1-2-8	6-1-12	13-4-4	20-6-12	27-9-4	33-10-4	41-1-8	42-4-0
1-2-8	6-1-12	7-2-8	7-2-8	7-2-8	6-1-0	7-3-4	1-2-8

Scale = 1:87.4



6-1-12	15-9-1	25-4-7	33-10-4	41-1-8
6-1-12	9-7-5	9-7-6	8-5-13	7-3-4

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	0.28	Vert(LL)	-0.09	14-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.14	14-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.02	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	14-15	>999	240	Weight: 316 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 6-14, 7-12, 5-15, 5-17

REACTIONS. (size) 12=0-3-8, 17=0-3-8
Max Horz 17=-302(LC 10)
Max Uplift 12=-133(LC 13), 17=-128(LC 12)
Max Grav 12=1899(LC 20), 17=1790(LC 19)

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

TOP CHORD	2-3=-440/569, 3-5=-252/556, 5-6=-1036/206, 6-7=-927/186, 7-9=-297/641, 9-10=-491/689
BOT CHORD	2-17=-393/459, 15-17=-74/912, 14-15=0/744, 12-14=0/641, 10-12=-488/516
WEBS	7-14=-34/405, 7-12=-1590/397, 9-12=-513/299, 6-15=-92/489, 5-17=-1514/355, 3-17=-509/298

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-8 to 3-4-5, Interior(1) 3-4-5 to 20-6-12, Exterior(2) 20-6-12 to 24-11-9, Interior(1) 24-11-9 to 42-2-0 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 30.0psf 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 133 lb uplift at joint 12 and 128 lb uplift at joint 17.

February 23,2023

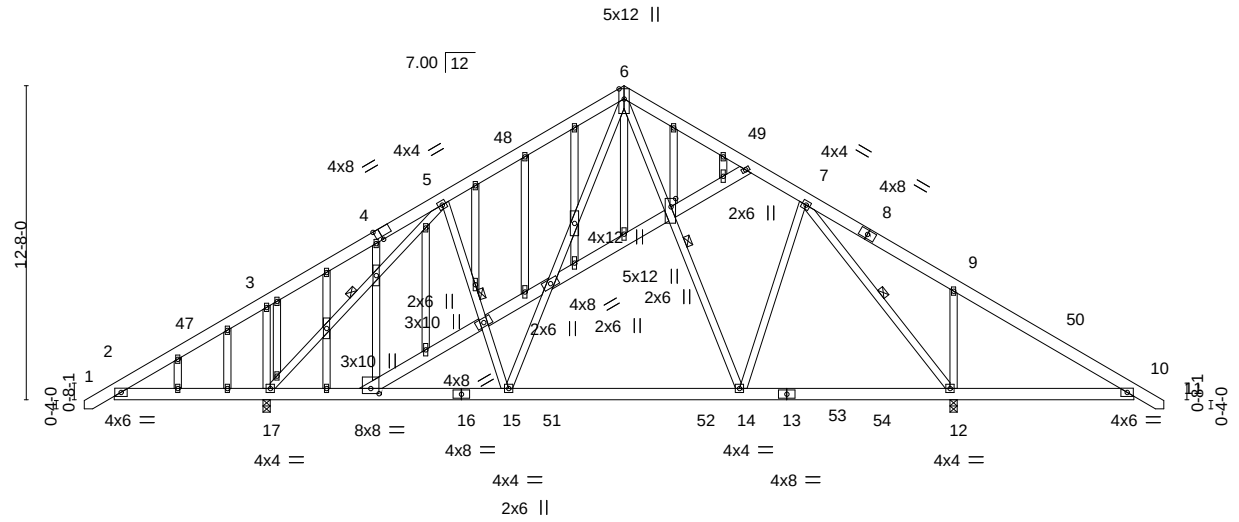
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	A5	GABLE	1	1	I56796806
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:06 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-XxoQxCYvTg0MSRibQV?5QF6?iFwVCSQ95pOceqziZtN

-1-2-8	6-1-12	13-4-4	20-6-12	27-9-4	33-10-4	41-1-8	42-4-0
1-2-8	6-1-12	7-2-8	7-2-8	7-2-8	6-1-0	7-3-4	1-2-8

Scale = 1:92.9



6-1-12	15-9-1	25-4-7	33-10-4	41-1-8
6-1-12	9-7-5	9-7-6	8-5-13	7-3-4

Plate Offsets (X,Y)-- [4:0-2-12,Edge], [19:0-4-0,0-2-4], [22:0-4-0,0-2-8]

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	0.28	Vert(LL)	-0.13	14-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.18	14-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	14-15	>999	240	Weight: 427 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 18-19,19-20,20-21,21-22: 2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 6-14, 7-12, 5-15, 5-17

REACTIONS. (size) 12=0-3-8, 17=0-3-8
Max Horz 17=-378(LC 10)
Max Uplift 12=-408(LC 13), 17=-385(LC 12)
Max Grav 12=1866(LC 20), 17=1638(LC 19)

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

TOP CHORD	2-3=-440/569, 3-5=-252/556, 5-6=-915/343, 6-7=-879/310, 7-9=-297/641, 9-10=-491/689
BOT CHORD	2-17=-393/459, 15-17=-133/858, 14-15=-15/720, 12-14=0/627, 10-12=-488/516
WEBS	6-14=-136/310, 7-14=-56/406, 7-12=-1529/397, 9-12=-513/356, 6-15=-173/373, 5-15=-136/298, 5-17=-1417/355, 3-17=-509/358

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-8 to 3-4-5, Interior(1) 3-4-5 to 20-6-12, Exterior(2) 20-6-12 to 24-11-9, Interior(1) 24-11-9 to 42-2-0 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 studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 408 lb uplift at joint 12 and 385 lb uplift at joint 17.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	B1	GABLE	1	1	I56796807
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:07 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-07Mo9YZYE_8D4bHn_DXKzSf9OfFWxxfIKT8AAGziZtM

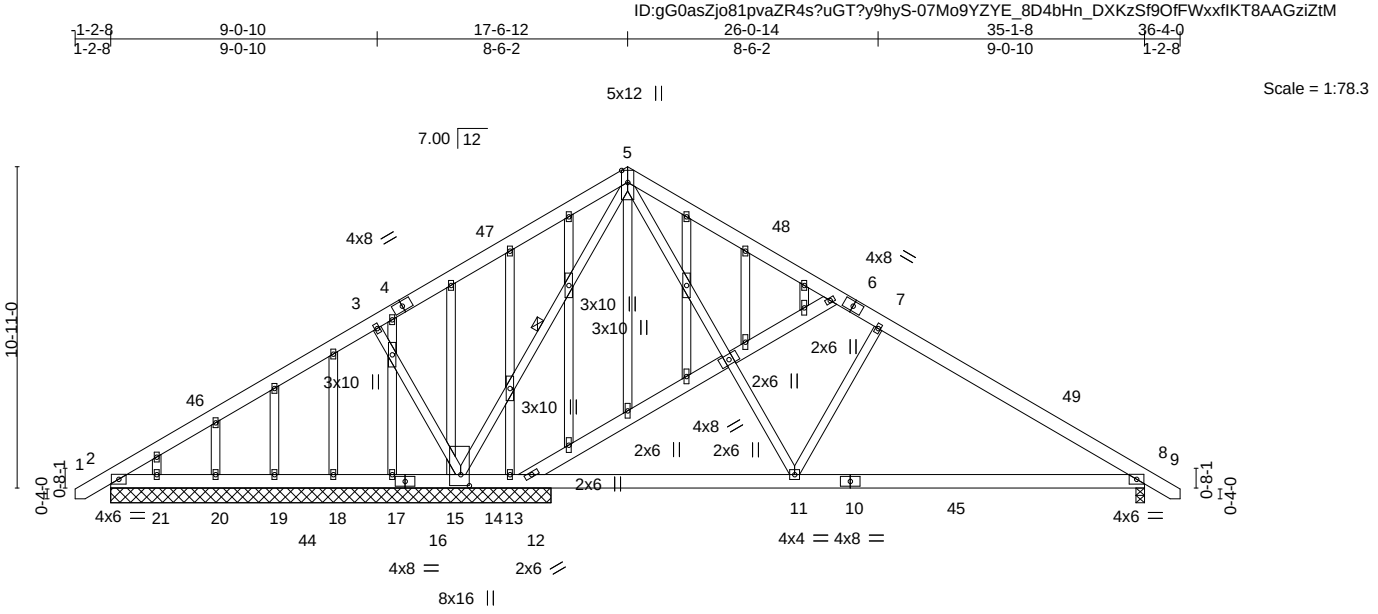


Plate Offsets (X,Y)-- [14:0-4-8,0-3-8]

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	0.35	Vert(LL)	-0.15	8-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.29	8-11	>854	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.04	8-11	>999	240	Weight: 344 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 12-22,22-23: 2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 5-14

REACTIONS. All bearings 14-11-8 except (jt=length) 8=0-3-8.
(lb) - Max Horz 2=260(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 15, 20 except 14=-222(LC 12), 13=-262(LC 3), 21=-122(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 2, 13, 15, 17, 18, 19, 20 except 14=1296(LC 1), 8=1033(LC 20), 12=445(LC 3), 21=317(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-307/97, 3-5=-64/272, 5-7=-1074/327, 7-8=-1259/263
BOT CHORD 13-14=0/365, 12-13=0/365, 11-12=0/365, 8-11=-88/991
WEBS 3-14=-576/322, 5-14=-935/171, 5-11=-168/995, 7-11=-589/321

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-8 to 3-4-5, Interior(1) 3-4-5 to 17-6-12, Exterior(2) 17-6-12 to 21-11-9, Interior(1) 21-11-9 to 36-2-0 zone;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 studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 15, 20 except (jt=lb) 14=222, 13=262, 21=122.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	B2	COMMON	4	1	I56796808
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:08 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-UKwAMuaA?IG4ils_Yw2ZVgCEH3Y8gRpSZ7tjiiziZtL

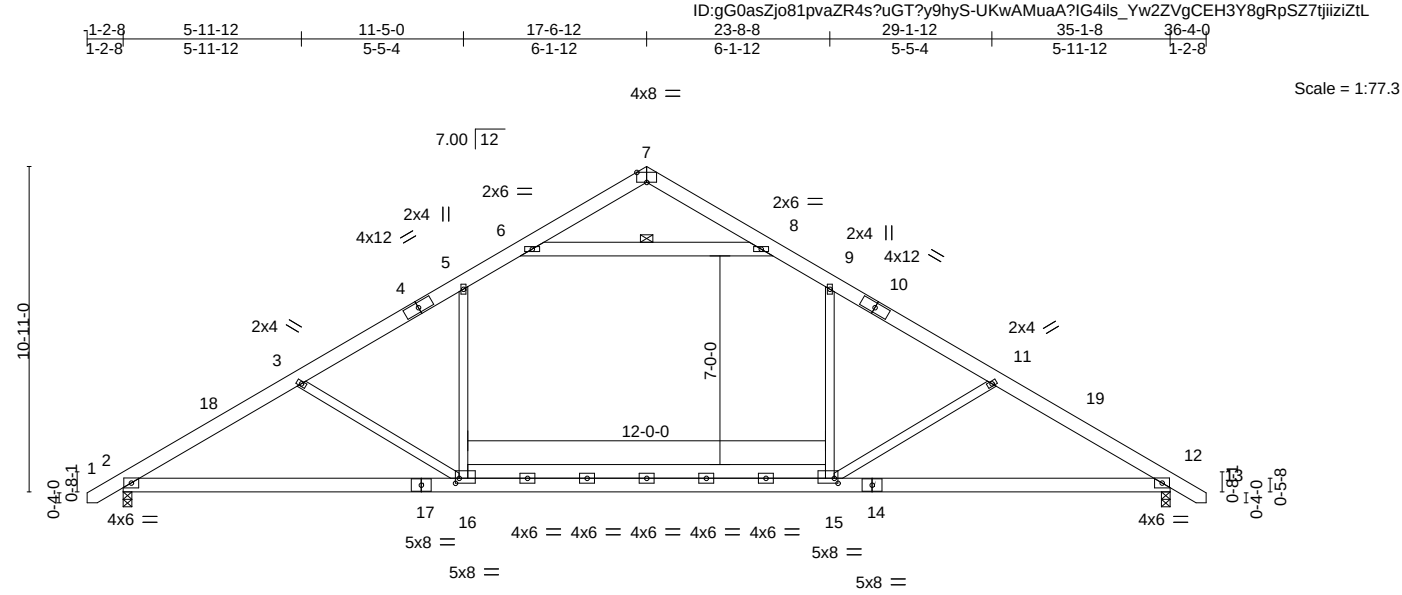


Plate Offsets (X,Y)-- [7:0-4-0,Edge], [15:0-1-8,0-2-0], [16:0-1-8,0-2-0]

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	0.72	Vert(LL)	-0.40	2-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.53	2-16	>786	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.05	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.33	2-16	>999	240	Weight: 270 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
6-8: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-1-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-8

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=-260(LC 10)
Max Uplift 2=-95(LC 12), 12=-95(LC 13)
Max Grav 2=1647(LC 19), 12=1647(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2604/467, 3-5=-2280/397, 5-6=-1759/424, 8-9=-1759/424, 9-11=-2280/397, 11-12=-2605/467
BOT CHORD 2-16=-289/2363, 15-16=-98/1897, 12-15=-290/2169
WEBS 9-15=0/762, 11-15=-550/226, 5-16=0/762, 3-16=-549/226, 6-8=-2008/403

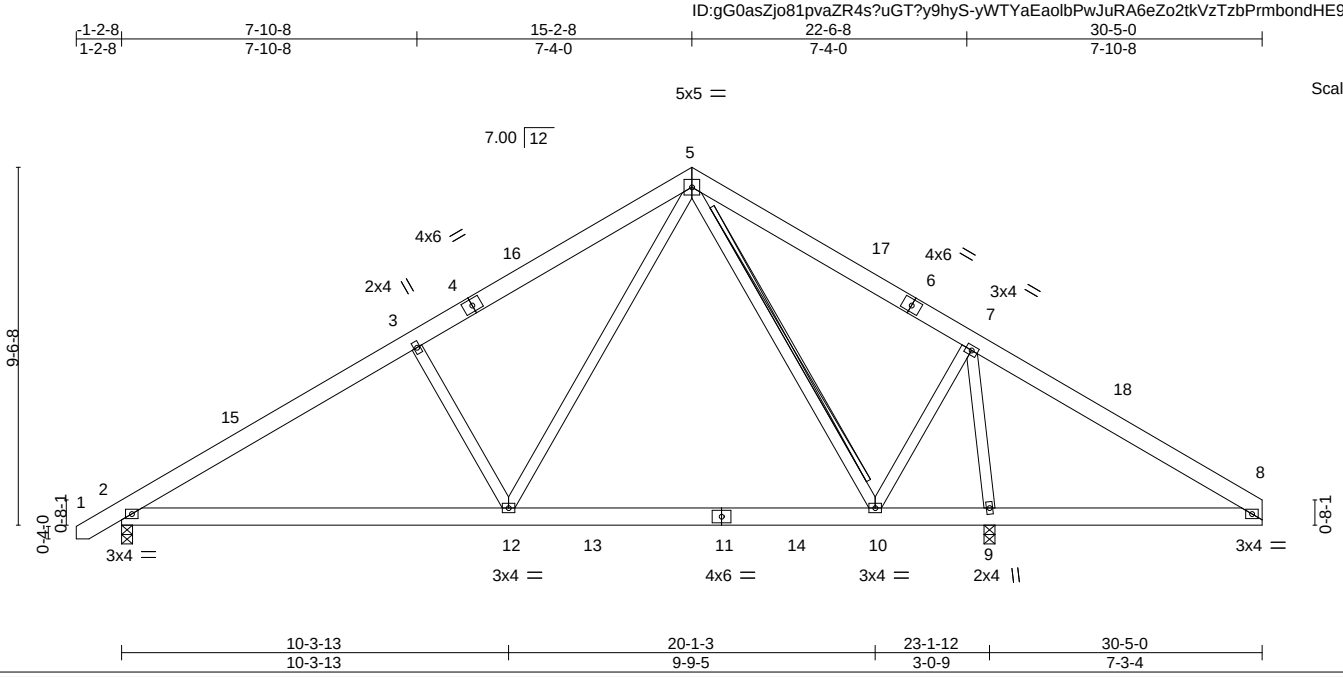
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-8 to 3-4-5, Interior(1) 3-4-5 to 17-6-12, Exterior(2) 17-6-12 to 21-10-5, Interior(1) 21-10-5 to 36-2-0 zone;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 30.0psf 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) 2, 12.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	C1	FINK	1	1	I56796809
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:09 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-yWTYaEaolbPwJuRA6eZo2tkVzTzbPrmbondHE9ziZtK



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	0.34	Vert(LL)	-0.13	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.18	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	2-12	>999	240	Weight: 208 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 5-10
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=224(LC 9)
Max Uplift 9=-90(LC 13), 2=-82(LC 12)
Max Grav 9=1590(LC 1), 2=956(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1285/160, 3-5=-1104/216, 5-7=-424/140, 7-8=-387/588
BOT CHORD 2-12=-124/1162, 10-12=0/533, 9-10=-249/350, 8-9=-396/402
WEBS 3-12=-501/285, 5-12=-145/866, 5-10=-584/267, 7-10=-71/879, 7-9=-1547/475

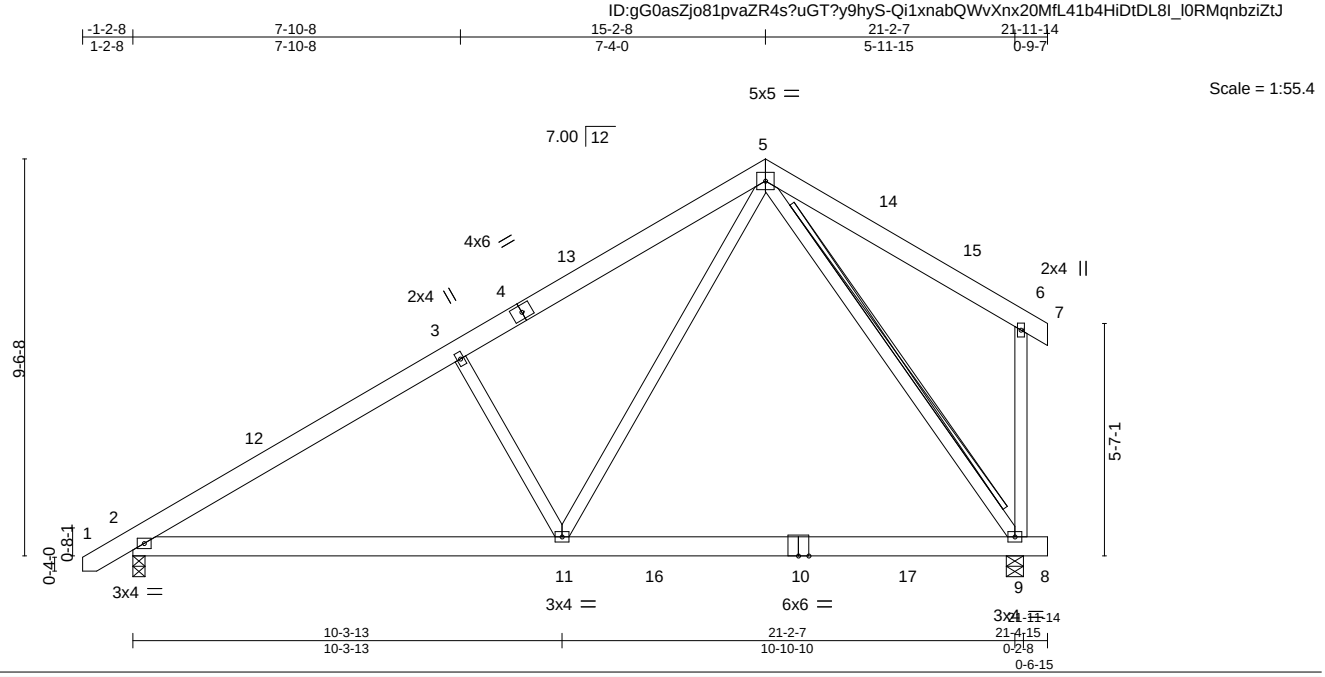
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-8 to 3-4-5, Interior(1) 3-4-5 to 15-2-8, Exterior(2) 15-2-8 to 19-7-5, Interior(1) 19-7-5 to 30-5-0 zone; cantilever 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 30.0psf 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) 9, 2.
6) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	C2	COMMON	1	1	I56796810
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:10 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-Qi1xnabQWvXnx20MfL41b4HiDtDL8I_l0RMqnbziZtJ



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	0.25	Vert(LL)	-0.32	9-11	>793	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.43	9-11	>594	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	2-11	>999	240	Weight: 160 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

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.
WEBS T-Brace: 2x4 SPF No.2 - 5-9
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. (size) 9=0-4-15, 2=0-3-8
Max Horz 2=227(LC 12)
Max Uplift 9=-57(LC 12), 2=-61(LC 12)
Max Grav 9=1029(LC 19), 2=954(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1315/217, 3-5=-1134/274
BOT CHORD 2-11=-264/1150, 9-11=-78/475
WEBS 3-11=-496/280, 5-11=-111/975, 5-9=-845/138

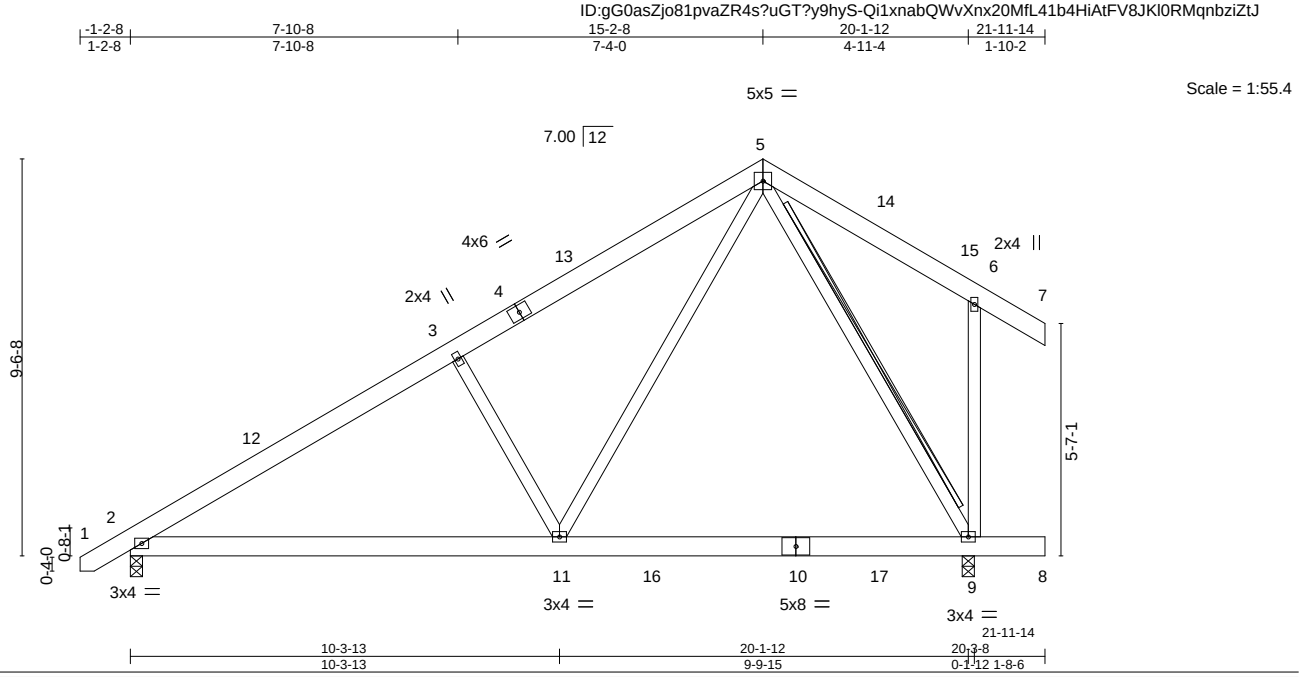
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-8 to 3-4-5, Interior(1) 3-4-5 to 15-2-8, Exterior(2) 15-2-8 to 19-7-5, Interior(1) 19-7-5 to 21-11-14 zone;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 30.0psf 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) 9, 2.
6) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	C3	COMMON	1	1	I56796811
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:10 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-Qi1xnabQWvXnx20MfL41b4HiAtFV8JKl0RMqnbziZtJ



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	0.25	Vert(LL)	-0.22	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.28	9-11	>854	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	2-11	>999	240	Weight: 160 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2

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.
WEBS	T-Brace: 2x4 SPF No.2 - 5-9 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=231(LC 12)
Max Uplift 9=-54(LC 12), 2=-57(LC 12)
Max Grav 9=1054(LC 19), 2=897(LC 19)

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

TOP CHORD	2-3=-1188/206, 3-5=-1008/263
BOT CHORD	2-11=-242/1048, 9-11=-57/389
WEBS	3-11=-506/284, 5-11=-128/929, 5-9=-794/116, 6-9=-269/253

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-8 to 3-4-5, Interior(1) 3-4-5 to 15-2-8, Exterior(2) 15-2-8 to 19-7-5, Interior(1) 19-7-5 to 21-11-14 zone;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 30.0psf 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) 9, 2.
6) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	D1	ROOF SPECIAL	3	1	I56796812
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:11 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-uvbJ_wc2HDfeZCbZD3bG7IqnGGcQtkCuF56NJ1ziZtI

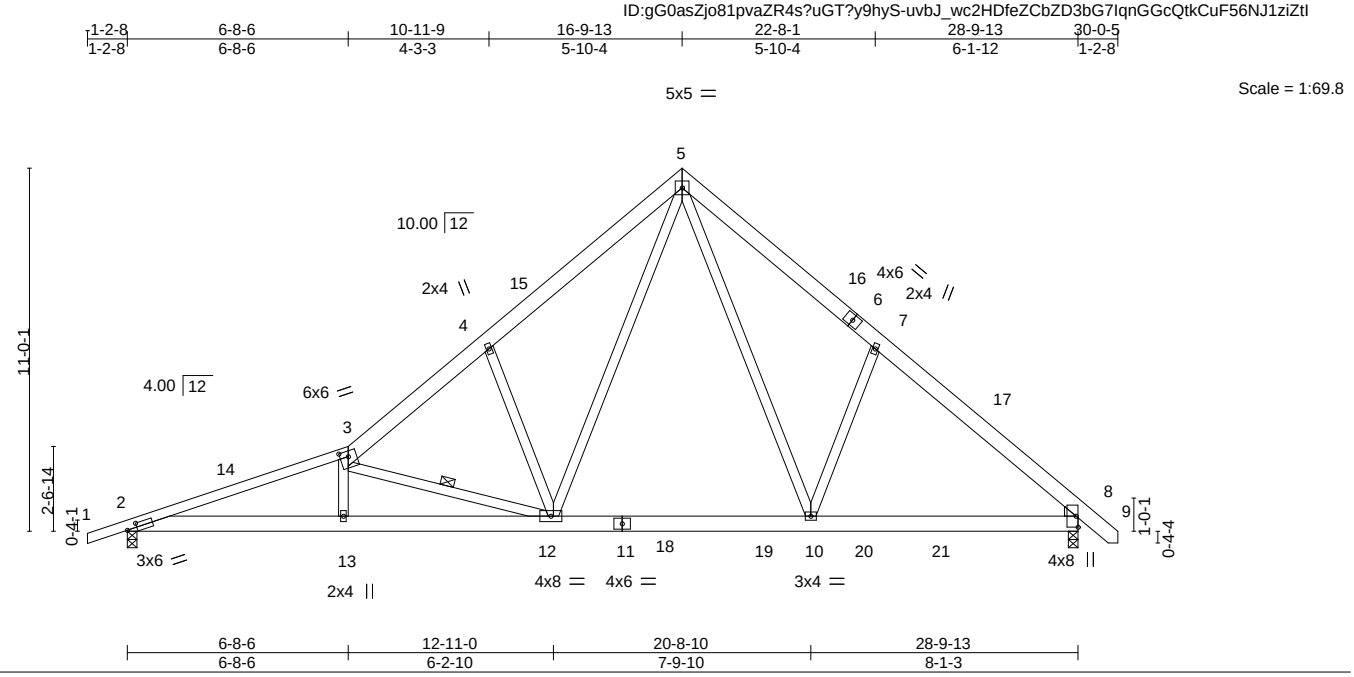


Plate Offsets (X,Y)-- [2:0-3-10,0-1-8], [3:0-3-0,0-2-0]

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)	-0.12	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.22	12-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.08	12-13	>999	240	Weight: 213 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except*
1-3: 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-10-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-12

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=265(LC 11)
Max Uplift 2=-89(LC 12), 8=-58(LC 13)
Max Grav 2=1223(LC 1), 8=1310(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2914/526, 3-4=-1744/368, 4-5=-1698/501, 5-7=-1473/448, 7-8=-1571/307
BOT CHORD 2-13=-410/2770, 12-13=-415/2765, 10-12=0/898, 8-10=-89/1117
WEBS 3-12=-1569/333, 4-12=-400/260, 5-10=-176/708, 7-10=-379/280, 5-12=-287/1166

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 16-9-13, Exterior(2) 16-9-13 to 21-2-10, Interior(1) 21-2-10 to 29-10-9 zone;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 30.0psf 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) 2, 8.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	D1GE	GABLE	1	1	I56796813
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:13 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-qHj3PbdIpqvMoWkxLTekCjvE94PwLlzBiPbUNwziZtG

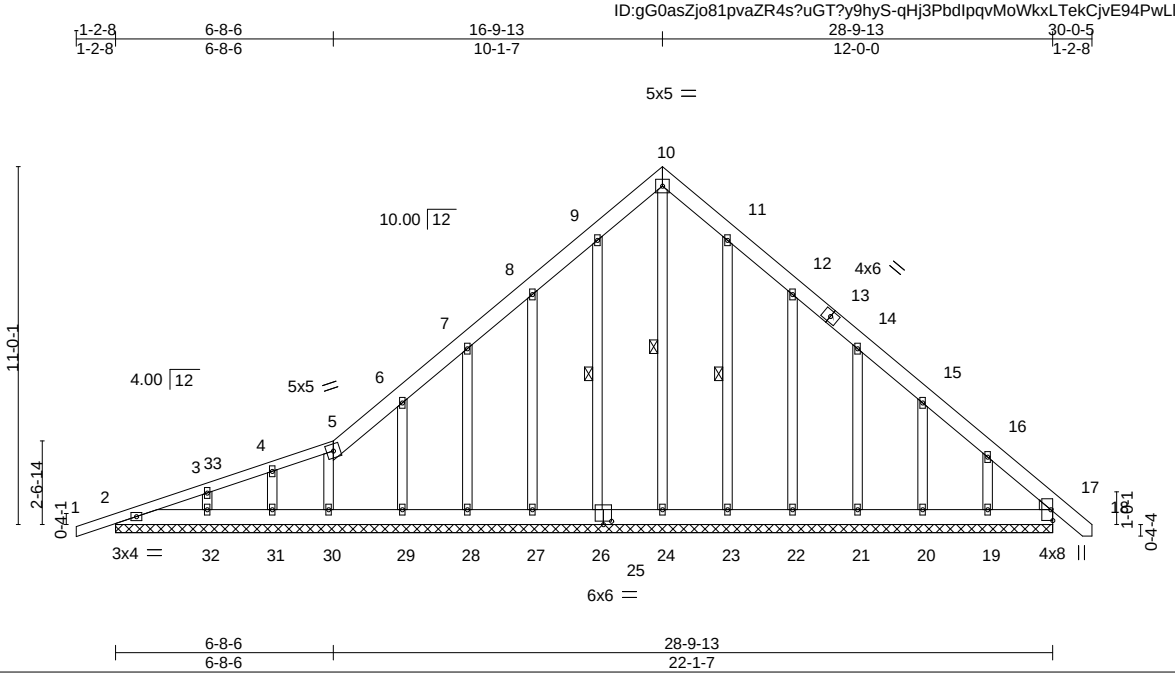


Plate Offsets (X,Y)-- [25:0-3-0,0-1-4]

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	0.08	Vert(LL)	-0.00	17	n/r	120	MT20	244/190
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	0.15	Horz(CT)	0.01	17	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 246 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except*
1-5: 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2
WEDGE
Right: 2x4 SP No.3

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.
WEBS 1 Row at midpt 10-24, 9-26, 11-23

REACTIONS. All bearings 28-9-13.
(lb) - Max Horz 2=341(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 17, 26, 31, 32, 23, 30 except
2=-118(LC 8), 27=-125(LC 12), 28=-109(LC 12), 29=-114(LC 12), 22=-128(LC 13),
21=-110(LC 13), 20=-110(LC 13), 19=-172(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 17, 24, 26, 27, 28, 29, 31, 32,
23, 22, 21, 20, 19, 30

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-302/143, 3-4=-263/136, 9-10=-236/265, 10-11=-236/265, 16-17=-320/215
BOT CHORD 2-32=-184/285, 31-32=-184/285, 30-31=-184/285, 29-30=-179/282, 28-29=-179/282,
27-28=-179/282, 26-27=-179/282, 24-26=-179/282, 23-24=-179/282, 22-23=-179/282,
21-22=-179/282, 20-21=-179/282, 19-20=-179/282, 17-19=-179/282

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-2-8 to 3-2-5, Exterior(2) 3-2-5 to 16-9-13, Corner(3) 16-9-13 to 21-2-10, Exterior(2) 21-2-10 to 29-10-9 zone;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 2-0-0 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 30.0psf 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) 17, 26, 31, 32, 23, 30 except (jt=lb) 2=118, 27=125, 28=109, 29=114, 22=128, 21=110, 20=110, 19=172.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	D2	ROOF SPECIAL	4	1	I56796814
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:14 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-IUHRdxexa81DQgJ7uB9zlwSGFUeB45tKx3K2wMziZtF

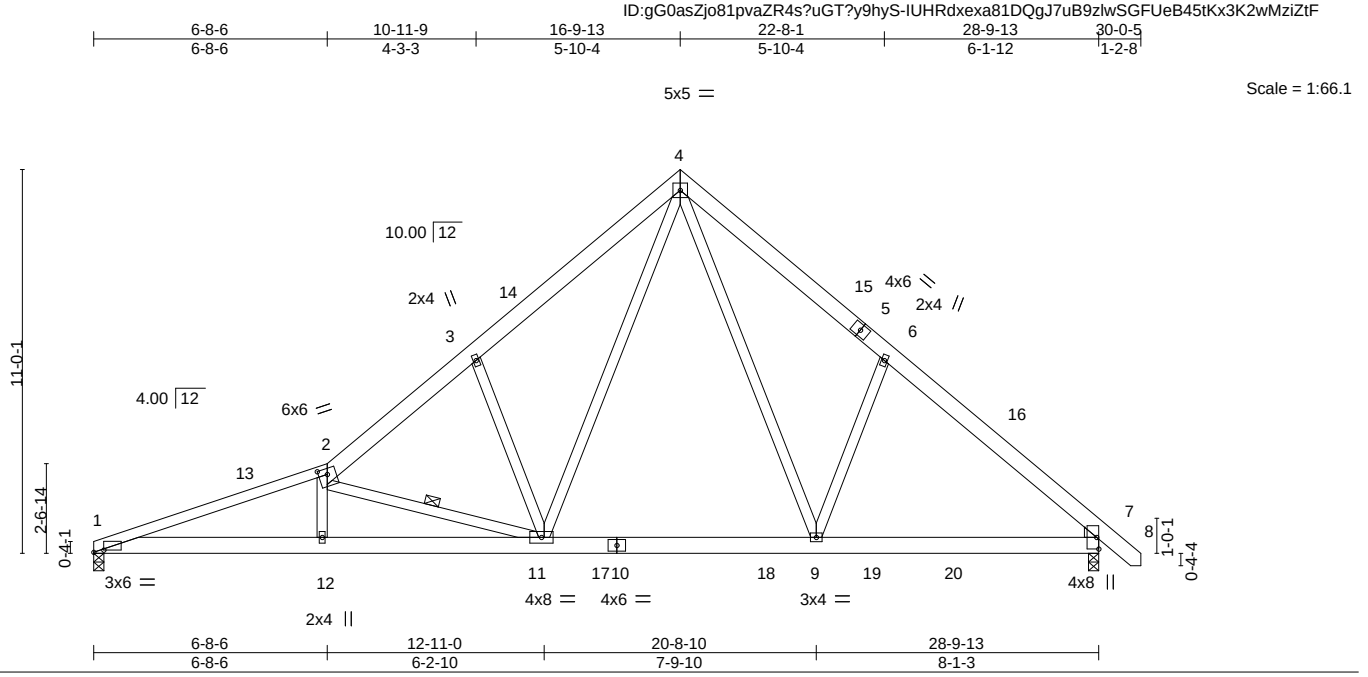


Plate Offsets (X,Y)-- [1:0-3-7,0-0-12], [2:0-3-0,0-2-0]

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	0.69	Vert(LL)	-0.12	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.22	11-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.08	11-12	>999	240	Weight: 211 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except*
1-2: 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-11

REACTIONS. (size) 1=0-3-8, 7=0-3-8
Max Horz 1=257(LC 11)
Max Uplift 1=-70(LC 12), 7=-58(LC 13)
Max Grav 1=1140(LC 1), 7=1311(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2935/591, 2-3=-1748/386, 3-4=-1700/516, 4-6=-1475/449, 6-7=-1573/308
BOT CHORD 1-12=-479/2781, 11-12=-484/2777, 9-11=0/899, 7-9=-95/1118
WEBS 2-11=-1592/395, 3-11=-396/257, 4-9=-175/707, 6-9=-379/279, 4-11=-289/1169

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 16-9-13, Exterior(2) 16-9-13 to 21-2-10, Interior(1) 21-2-10 to 29-10-9 zone;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 30.0psf 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) 1, 7.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	D3	ROOF SPECIAL	1	1	I56796815
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:15 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-ngrqqHfZLR941puKSugDI8_RCuzMpYAUAj4bSpziZtE

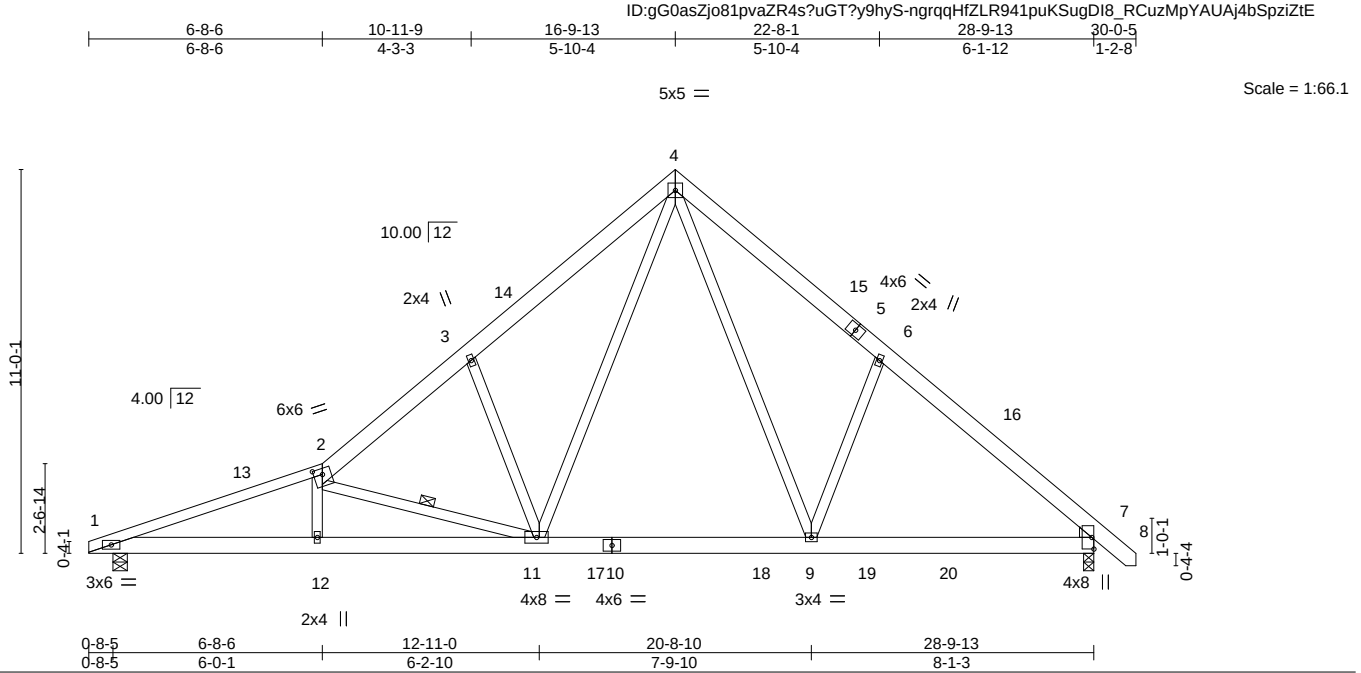


Plate Offsets (X,Y)-- [2:0-3-0,0-2-0]

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	0.68	Vert(LL)	-0.12	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.21	11-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.08	11-12	>999	240	Weight: 211 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except*
1-2: 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-11

REACTIONS. (size) 7=0-3-8, 1=0-4-15
Max Horz 1=257(LC 11)
Max Uplift 7=-58(LC 13), 1=-69(LC 12)
Max Grav 7=1309(LC 20), 1=1137(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2910/586, 2-3=-1742/384, 3-4=-1694/515, 4-6=-1471/448, 6-7=-1570/307
BOT CHORD 1-12=-474/2758, 11-12=-479/2753, 9-11=0/896, 7-9=-95/1115
WEBS 2-11=-1570/392, 3-11=-397/257, 4-9=-175/707, 6-9=-379/279, 4-11=-287/1162

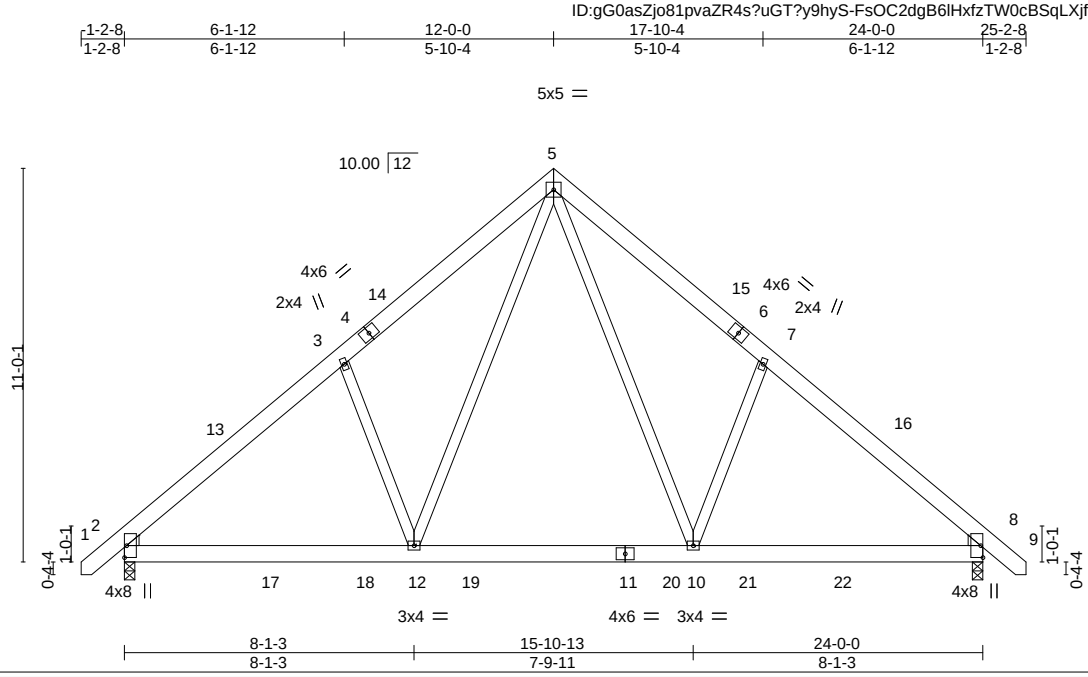
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-8 to 4-7-4, Interior(1) 4-7-4 to 16-9-13, Exterior(2) 16-9-13 to 21-2-10, Interior(1) 21-2-10 to 29-10-9 zone;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 30.0psf 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) 7, 1.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	E1	COMMON	1	1	I56796816
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:16 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-FsOC2dgB6lHxfzTW0cBSqLXjfHMNY2rdPNp8_FziZtD



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	0.25	Vert(LL)	-0.05	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.08	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.02	2-12	>999	240	Weight: 187 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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, 8=0-3-8
Max Horz 2=261(LC 11)
Max Uplift 2=-56(LC 12), 8=-56(LC 13)
Max Grav 2=1160(LC 19), 8=1160(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1344/260, 3-5=-1247/402, 5-7=-1248/402, 7-8=-1344/260
BOT CHORD 2-12=-73/1084, 10-12=0/730, 8-10=-54/957
WEBS 5-10=-185/711, 7-10=-400/285, 5-12=-185/711, 3-12=-400/285

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-12 to 3-4-1, Interior(1) 3-4-1 to 12-0-0, Exterior(2) 12-0-0 to 16-4-13, Interior(1) 16-4-13 to 25-0-12 zone;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 30.0psf 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) 2, 8.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	E1GE	GABLE	1	1	I56796817
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:17 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-j3yaFzhpt3PoH72iaJihNZ4xdhmrHZynd1ZiWhziZtC

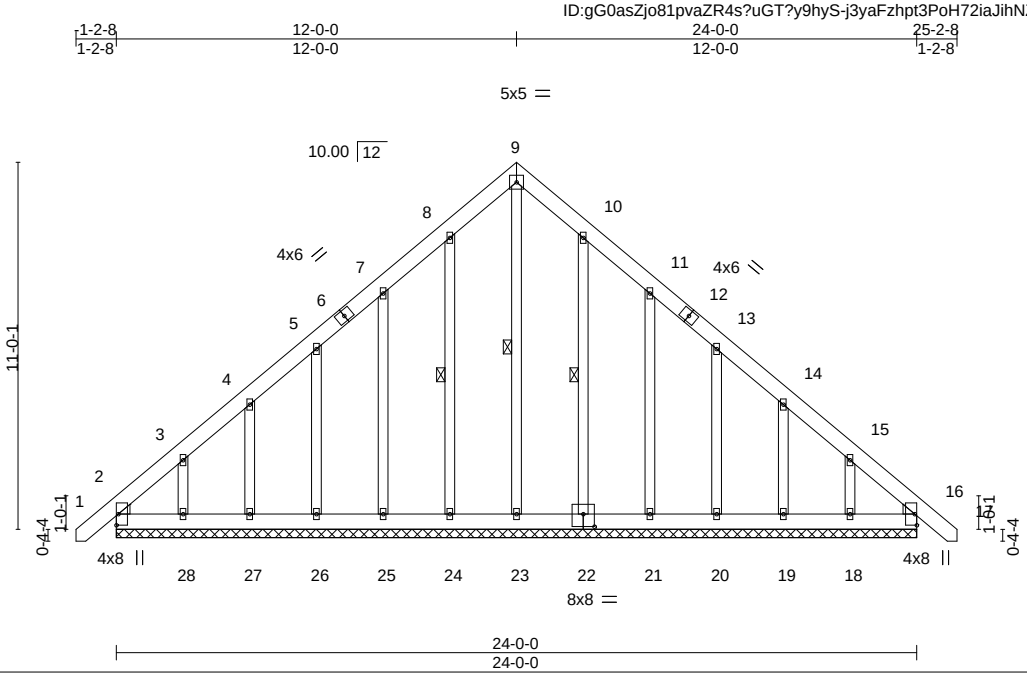


Plate Offsets (X,Y)-- [22:0-4-0,0-4-8]

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	0.05	Vert(LL)	-0.00	16	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	16	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	16	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 229 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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.
WEBS 1 Row at midpt 9-23, 8-24, 10-22

REACTIONS. All bearings 24-0-0.
(lb) - Max Horz 2=-326(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 16, 24, 22 except 2=-108(LC 8), 25=-124(LC 12), 26=-110(LC 12), 27=-111(LC 12), 28=-184(LC 12), 21=-127(LC 13), 20=-110(LC 13), 19=-110(LC 13), 18=-174(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 16, 23, 24, 25, 26, 27, 28, 22, 21, 20, 19, 18 except 2=260(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-397/262, 15-16=-335/227
BOT CHORD 2-28=-187/292, 27-28=-188/292, 26-27=-188/292, 25-26=-188/292, 24-25=-188/292, 23-24=-188/292, 22-23=-188/292, 21-22=-188/292, 20-21=-188/292, 19-20=-188/292, 18-19=-188/292, 16-18=-187/292

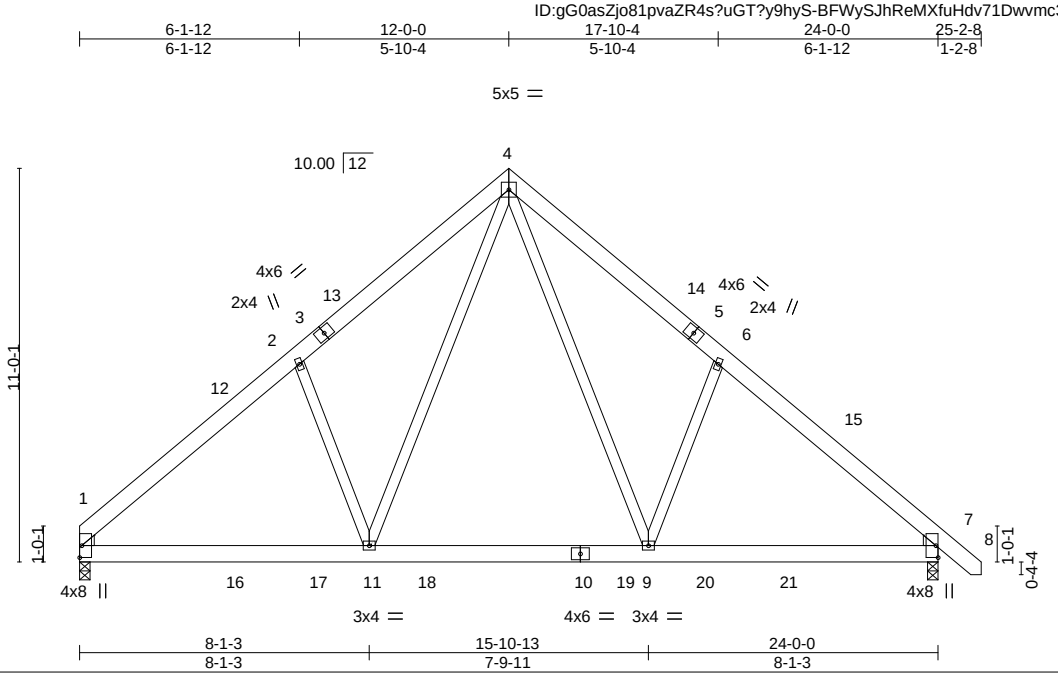
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-0-12 to 3-4-1, Exterior(2) 3-4-1 to 12-0-0, Corner(3) 12-0-0 to 16-4-13, Exterior(2) 16-4-13 to 25-0-12 zone;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 2-0-0 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 30.0psf 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) 16, 24, 22 except (jt=lb) 2=108, 25=124, 26=110, 27=111, 28=184, 21=127, 20=110, 19=110, 18=174.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	E2	COMMON	11	1	I56796818
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:18 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-BFWySJhReMXfuHdv71Dwvmc3C52v0yCwshIF37ziZtB



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	0.25	Vert(LL)	-0.05	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.08	9-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.02	1-11	>999	240	Weight: 183 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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, 7=0-3-8
Max Horz 1=-258(LC 10)
Max Uplift 1=-38(LC 12), 7=-56(LC 13)
Max Grav 1=1075(LC 19), 7=1146(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1333/271, 2-4=-1240/421, 4-6=-1234/404, 6-7=-1332/262
BOT CHORD 1-11=-76/1080, 9-11=0/725, 7-9=-60/948
WEBS 4-9=-186/700, 6-9=-400/285, 4-11=-189/709, 2-11=-401/291

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 12-0-0, Exterior(2) 12-0-0 to 16-4-13, Interior(1) 16-4-13 to 25-0-12 zone;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 30.0psf 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) 1, 7.

February 23,2023

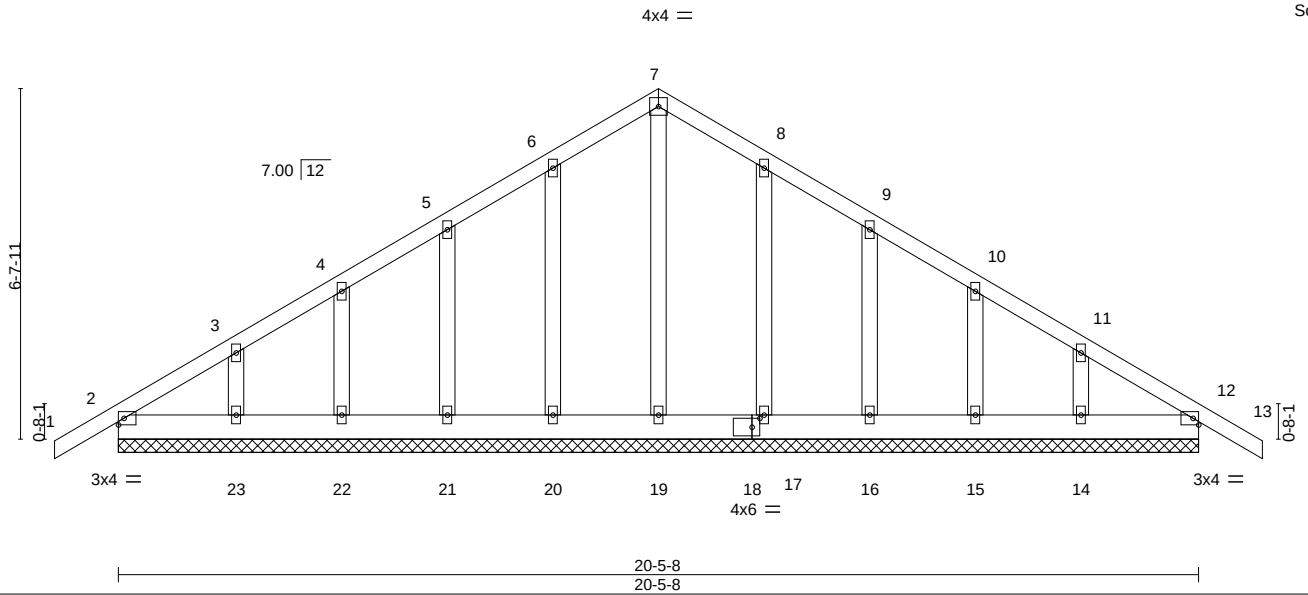
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	G1GE	COMMON SUPPORTED GAB	1	1	I56796819
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:20 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-7dejt_jhA_nN8bnHFRGO?BiRTvokUxoDJ_nM70ziZt9

-1-2-8 1-2-8 | 10-2-12 10-2-12 | 20-5-8 10-2-12 | 21-8-0 1-2-8

Scale = 1:43.6



20-5-8
20-5-8

Plate Offsets (X,Y)-- [18:0-1-12,0-2-0]

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	0.07	Vert(LL)	-0.00	13	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	13	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 132 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2

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 20-5-8.
(lb) - Max Horz 2=200(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 23, 17, 16, 15, 14, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 19, 20, 21, 22, 23, 17, 16, 15, 14, 12

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

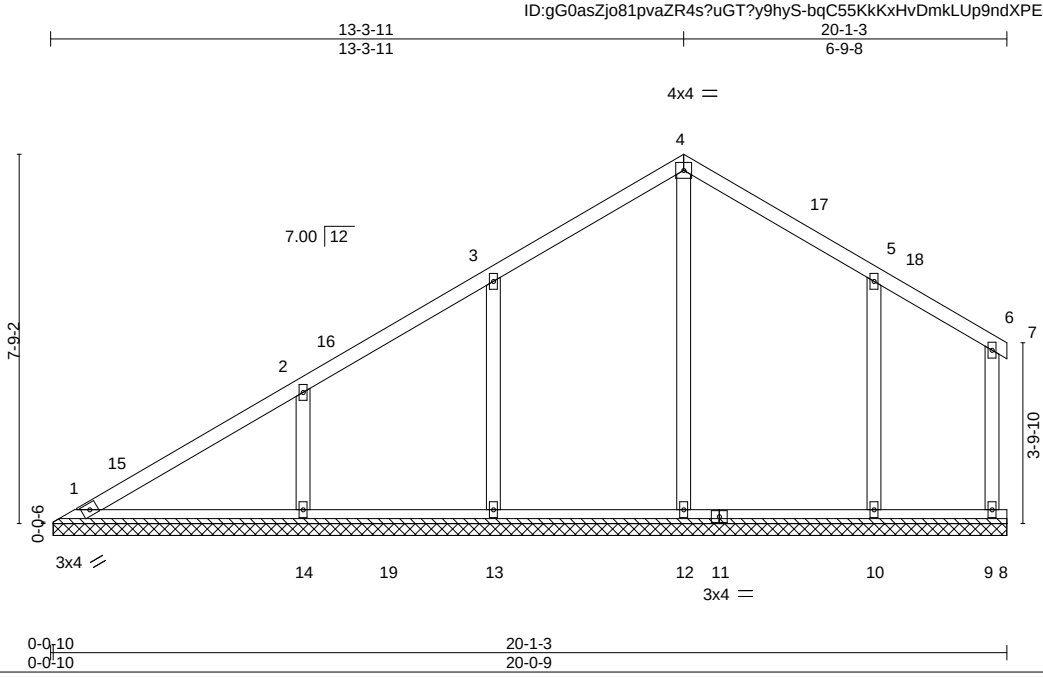
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-2-8 to 3-2-5, Exterior(2) 3-2-5 to 10-2-12, Corner(3) 10-2-12 to 14-7-9, Exterior(2) 14-7-9 to 21-8-0 zone;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 2-0-0 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 30.0psf 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, 20, 21, 22, 23, 17, 16, 15, 14, 12.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	VC1	VALLEY	1	1	I56796820
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:21 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-bqC55KkKxHvDmkLUp9ndXPEa2I6eDMsMYeXvfSziZt8



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	0.21	Vert(LL)	0.00	6	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	0.00	6	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 98 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 20-0-8.
(lb) - Max Horz 1=172(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 13, 14, 10
Max Grav All reactions 250 lb or less at joint(s) 1, 9 except 12=498(LC 19), 13=501(LC 19), 14=446(LC 19), 10=482(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-13=-273/175, 2-14=-339/205, 5-10=-265/172

NOTES-

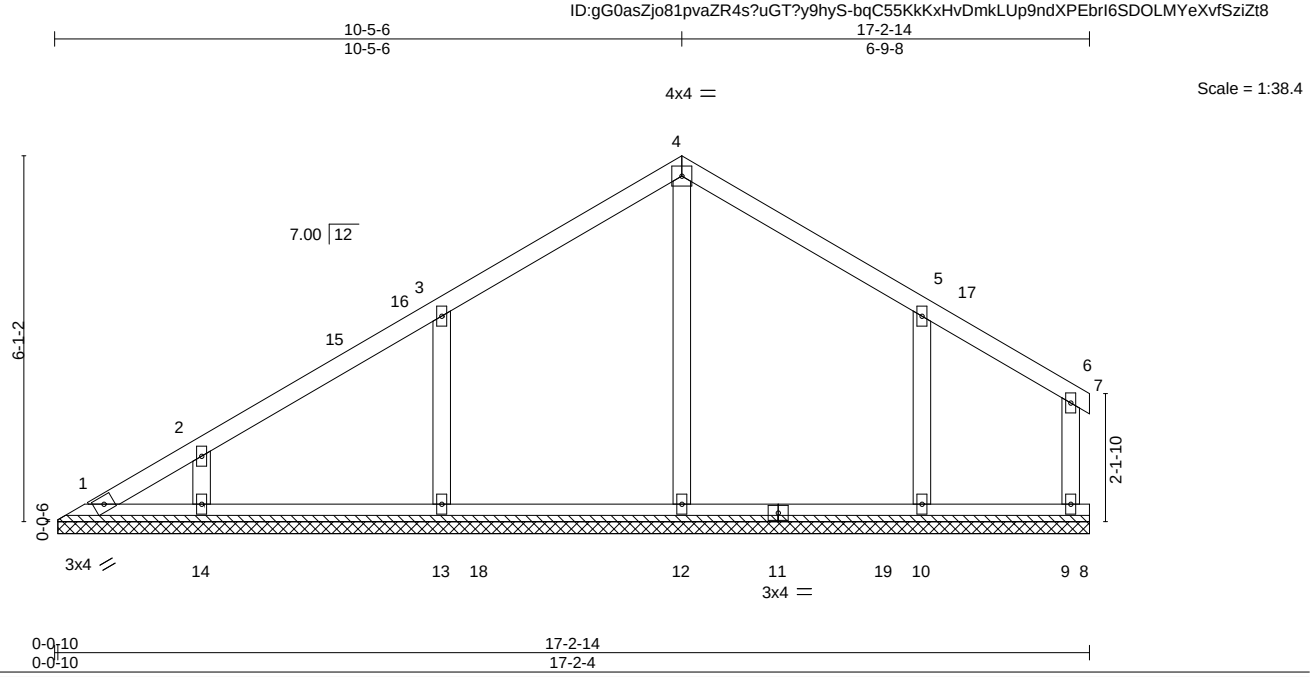
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-6-12 to 4-11-9, Interior(1) 4-11-9 to 13-3-11, Exterior(2) 13-3-11 to 17-8-7, Interior(1) 17-8-7 to 20-1-3 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
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 30.0psf 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) 1, 9, 13, 14, 10.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	VC2	VALLEY	1	1	I56796821
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:21 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-bqC55KkKxHvDmkLUp9ndXPEbrI6SDOLMYeXvfSziZt8



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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 76 lb	FT = 20%

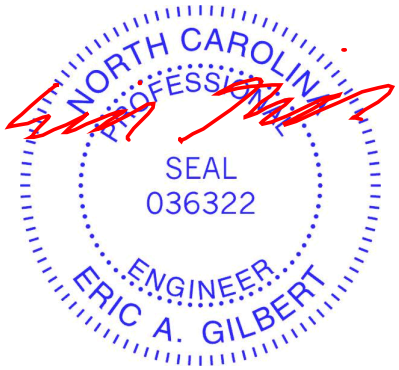
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 17-2-4.
(lb) - Max Horz 1=137(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 9, 13, 14, 10, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 9, 8 except 12=492(LC 19), 13=429(LC 19), 14=268(LC 19), 10=395(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-13=-301/190, 5-10=-265/175

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-6-12 to 4-11-9, Interior(1) 4-11-9 to 10-5-6, Exterior(2) 10-5-6 to 14-10-3, Interior(1) 14-10-3 to 17-2-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
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) * This truss has been designed for a live load of 30.0psf 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, 7, 9, 13, 14, 10, 8.

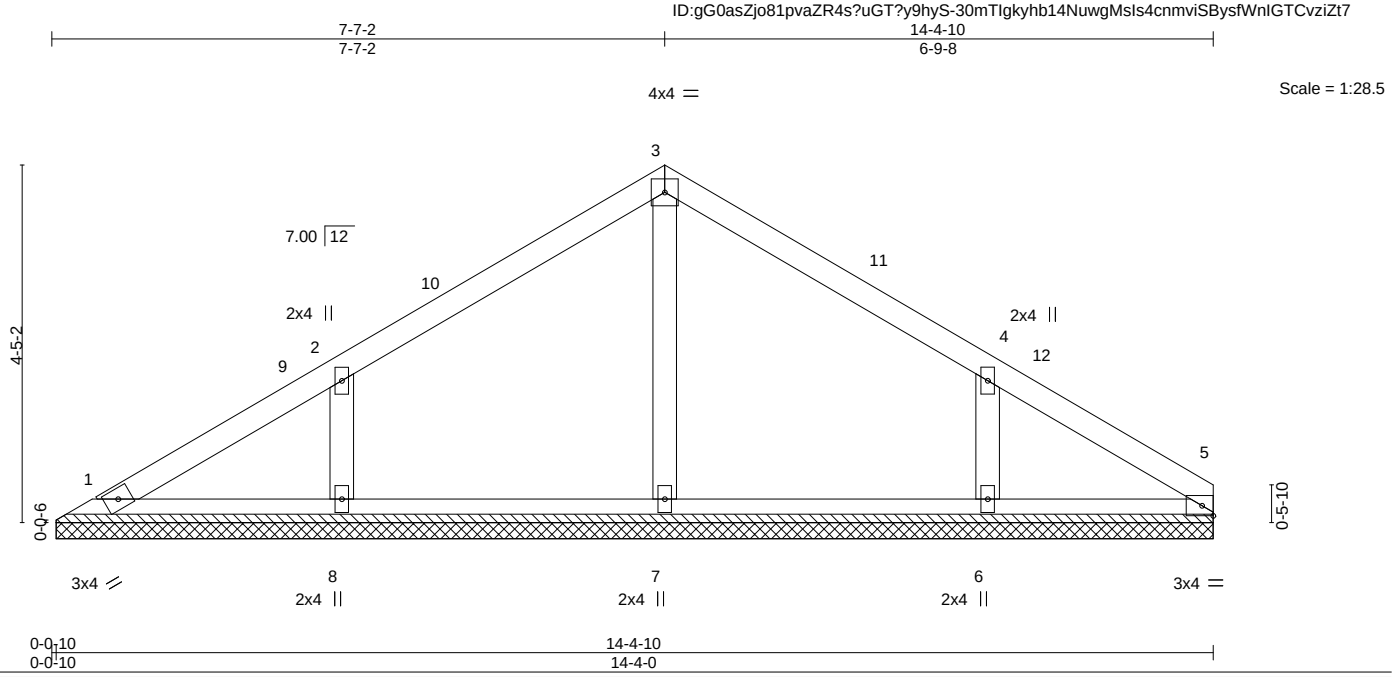


February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	VC3	VALLEY	1	1	I56796822
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:22 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-30mTlgkyhb14NuwgMsIs4cnmviSBysfWnIGTCvziZt7



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	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 56 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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 14-3-15.
(lb) - Max Horz 1=99(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=266(LC 1), 8=350(LC 19), 6=340(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-287/187, 4-6=-281/186

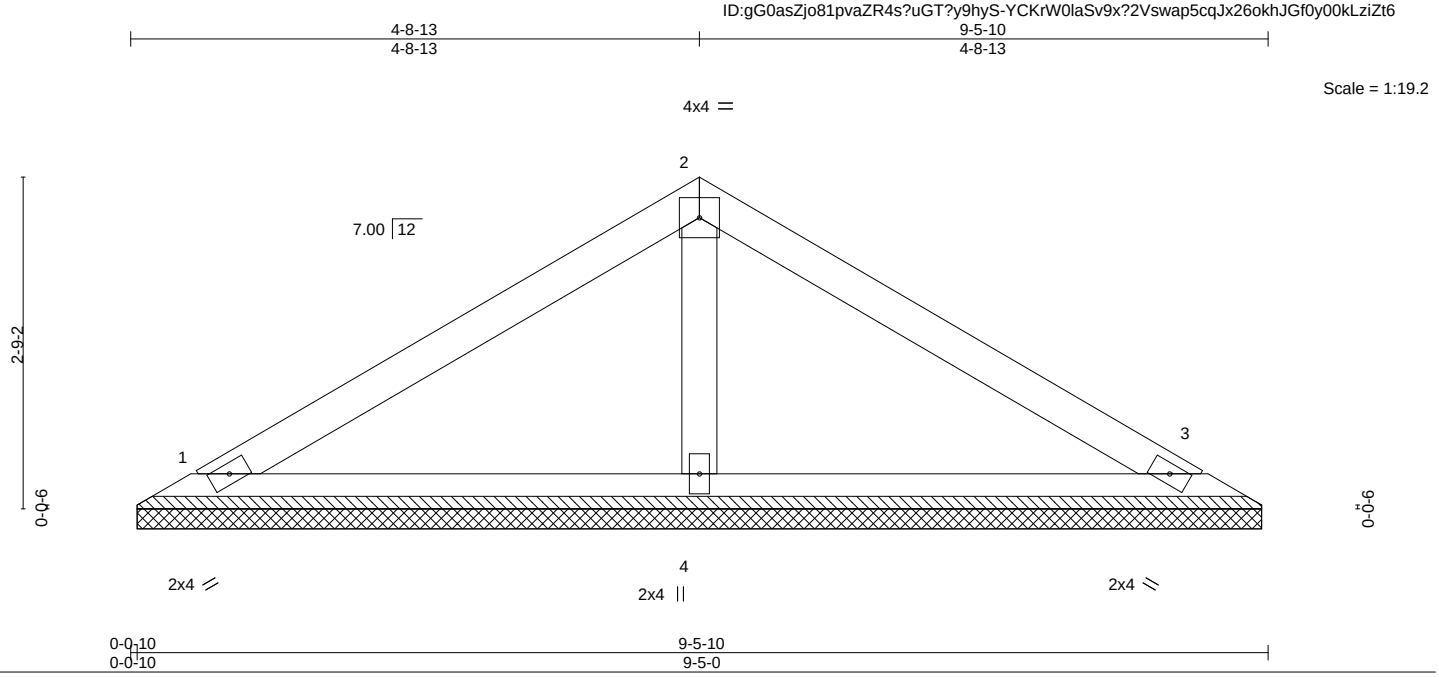
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-6-12 to 4-11-9, Interior(1) 4-11-9 to 7-7-2, Exterior(2) 7-7-2 to 11-11-14, Interior(1) 11-11-14 to 14-4-10 zone;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 30.0psf 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 6.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	VC4	VALLEY	1	1	I56796823
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:23 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-YCKrW0laSv9x?2Vswap5cqJx26okhJGf0y00kLziZt6



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	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 32 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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=9-4-5, 3=9-4-5, 4=9-4-5
Max Horz 1=59(LC 9)
Max Uplift 1=-21(LC 12), 3=-26(LC 13)
Max Grav 1=159(LC 1), 3=159(LC 1), 4=349(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;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 30.0psf 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	VC5	VALLEY	1	1	I56796824
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:24 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-0PtDjMmCDCHodC42UHKK91s8EW91Qm0pEclZGnziZt5

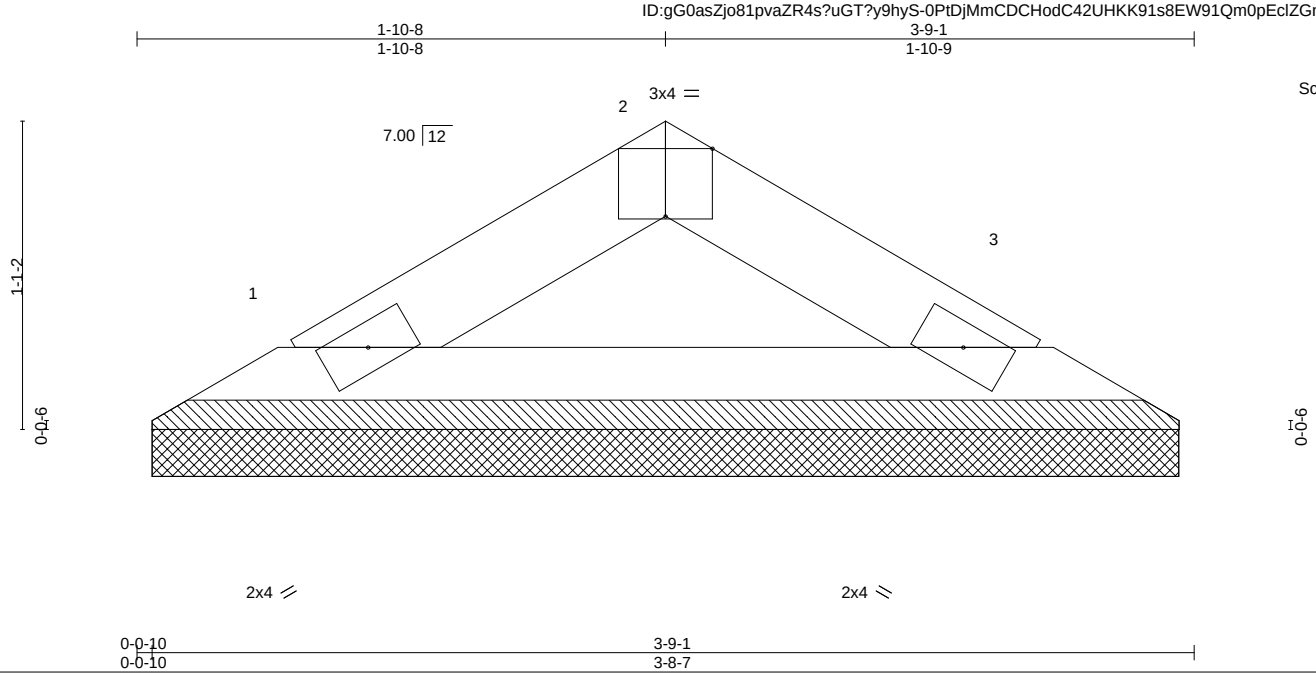


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 10 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-7-12, 3=3-7-12
Max Horz 1=19(LC 9)
Max Uplift 1=-6(LC 12), 3=-6(LC 13)
Max Grav 1=105(LC 1), 3=105(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;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 30.0psf 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 100 lb uplift at joint(s) 1, 3.
6) Non Standard bearing condition. Review required.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	VH1	GABLE	1	1	I56796825
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:25 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-UbRcwinq_WQfEMfF2?rZiFPJNwUm9CvyTGV7pDziZt4

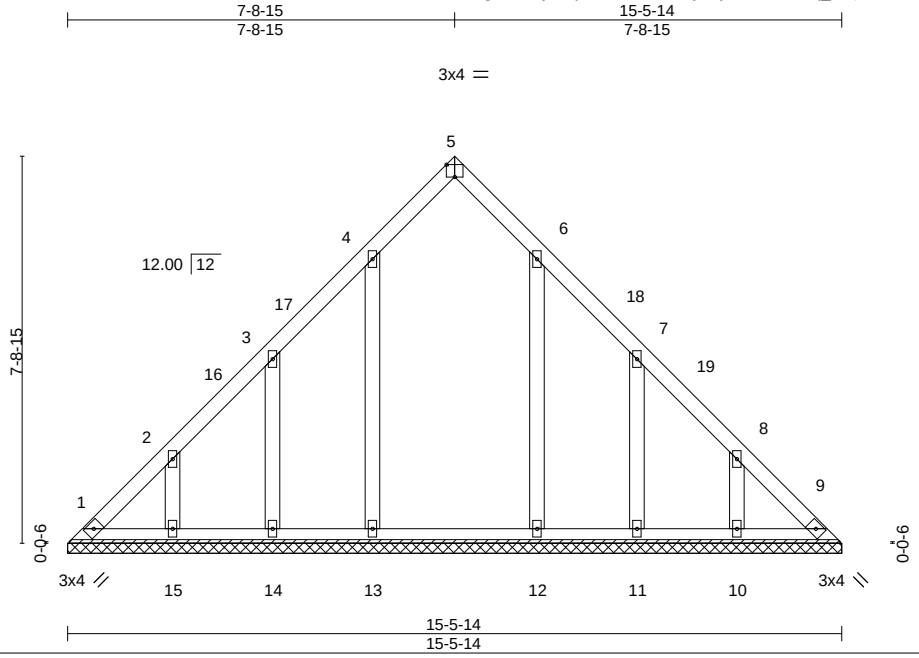


Plate Offsets (X,Y)-- [5:0-2-0,Edge]

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 86 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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 15-5-14.
(lb) - Max Horz 1=-177(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 13, 14, 15, 12, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 14, 15, 11, 10 except 13=294(LC 19), 12=288(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-306/245, 8-9=-306/245

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 7-8-15, Exterior(2) 7-8-15 to 12-1-12, Interior(1) 12-1-12 to 15-1-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
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) * This truss has been designed for a live load of 30.0psf 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, 9, 13, 14, 15, 12, 11, 10.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	VH2	VALLEY	1	1	I56796826
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:26 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-yn?_82oSlqYWsWERbiMoESxSuJp3uf45iwEgLgziZt3

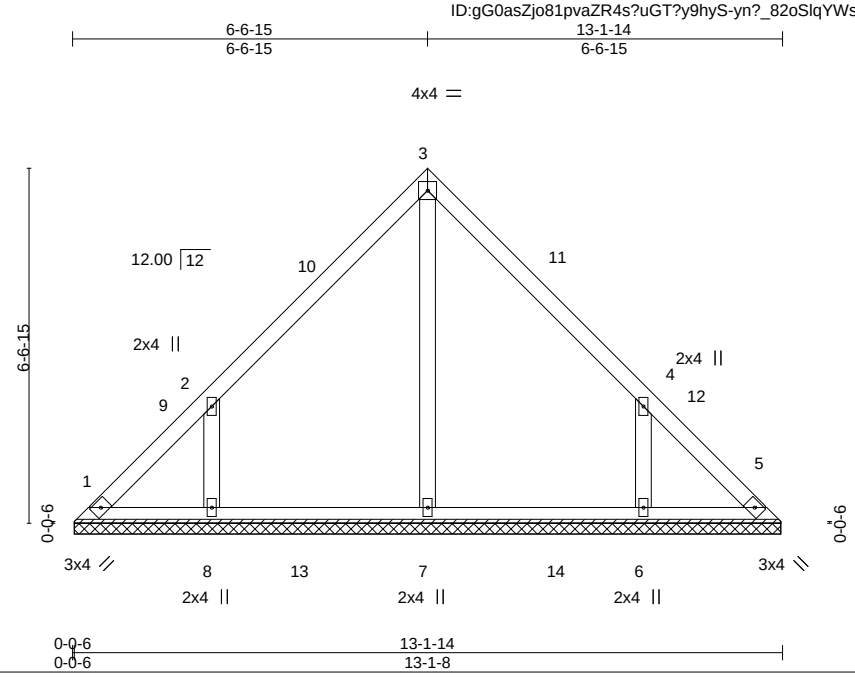


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

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	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 61 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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 13-1-2.
(lb) - Max Horz 1=149(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-163(LC 12), 6=-163(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=387(LC 19), 8=377(LC 19), 6=377(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-359/290, 4-6=-359/290

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 6-6-15, Exterior(2) 6-6-15 to 10-11-12, Interior(1) 10-11-12 to 12-9-10 zone;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 30.0psf 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) 1, 5 except (jt=lb) 8=163, 6=163.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	VH3	VALLEY	1	1	I56796827
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:26 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-yn?_82oSlqYWsWERbiMoESxShJq1ugb5iwEgLgziZt3

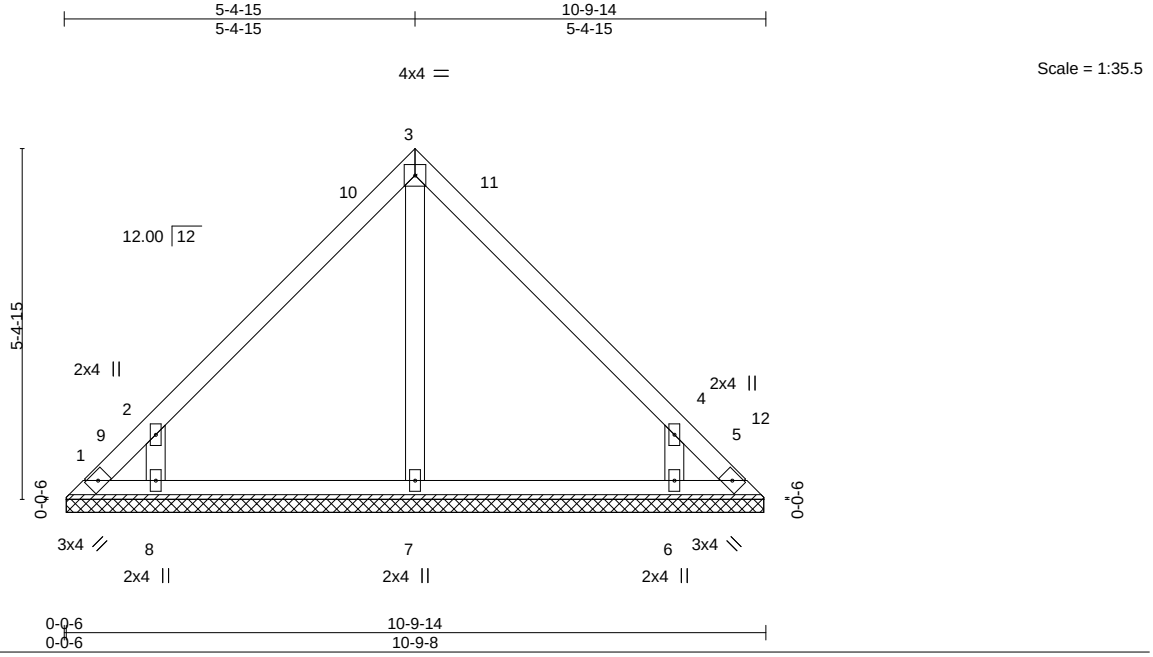


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

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	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 47 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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 10-9-2.
(lb) - Max Horz 1=121(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 5 except 1=-109(LC 10), 8=-171(LC 12), 6=-171(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=356(LC 19), 6=356(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-386/330, 4-6=-386/330

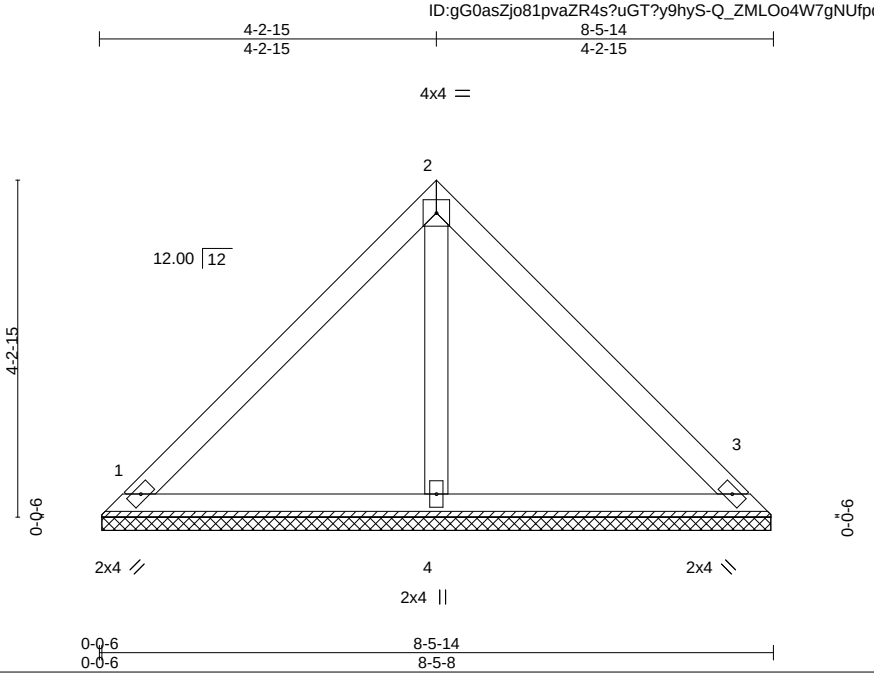
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-4-15, Exterior(2) 5-4-15 to 9-9-12, Interior(1) 9-9-12 to 10-5-10 zone;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 30.0psf 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 100 lb uplift at joint(s) 5 except (jt=lb) 1=109, 8=171, 6=171.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	VH4	VALLEY	1	1	I56796828
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:27 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-Q_ZMLOo4W7gNUfpd9Qu1ngUbmjAvd78Fwa_Et6ziZt2



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	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 34 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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=8-5-2, 3=8-5-2, 4=8-5-2
Max Horz 1=-93(LC 8)
Max Uplift 1=-34(LC 13), 3=-34(LC 13)
Max Grav 1=190(LC 1), 3=190(LC 1), 4=244(LC 1)

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

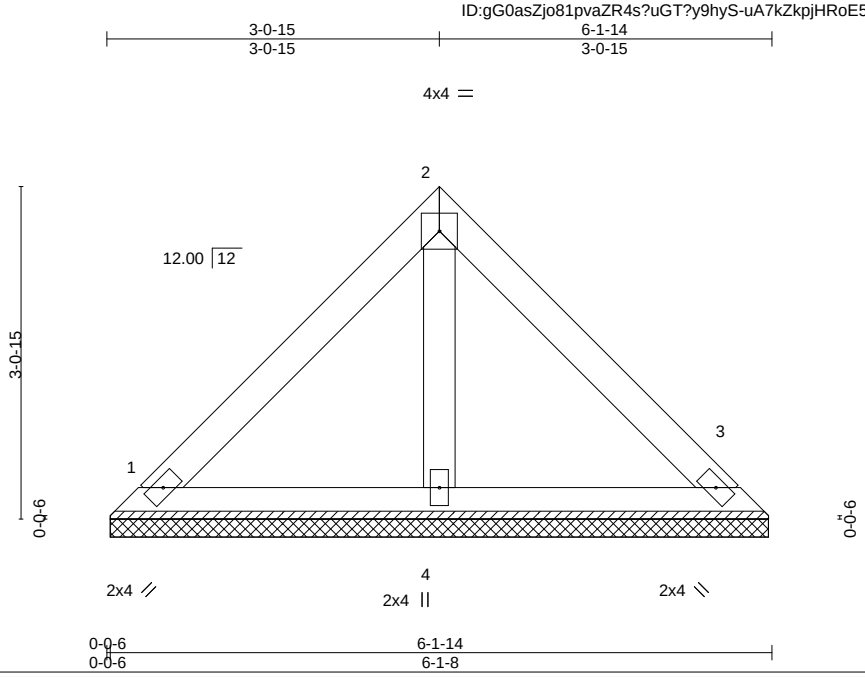
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip 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 30.0psf 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 100 lb uplift at joint(s) 1, 3.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	VH5	VALLEY	1	1	I56796829
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:28 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-uA7kZkpjHRoE5pOqj7PGJt1of7X1MZlO9EjnPYziZt1



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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 24 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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=6-1-2, 3=6-1-2, 4=6-1-2
Max Horz 1=-65(LC 8)
Max Uplift 1=-24(LC 13), 3=-24(LC 13)
Max Grav 1=133(LC 1), 3=133(LC 1), 4=171(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;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 30.0psf 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 100 lb uplift at joint(s) 1, 3.

February 23,2023

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

Job	Truss	Truss Type	Qty	Ply	Freedom/Campbell-Thomas/Harnett
J0223-0831	VH6	VALLEY	1	1	I56796830
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Feb 22 13:36:29 2023 Page 1
ID:gG0asZjo81pvaZR4s?uGT?y9hyS-MMh6m3qL2lw5jzz0HqwVs5Z_jXrp50FYOuTKy?ziZt0

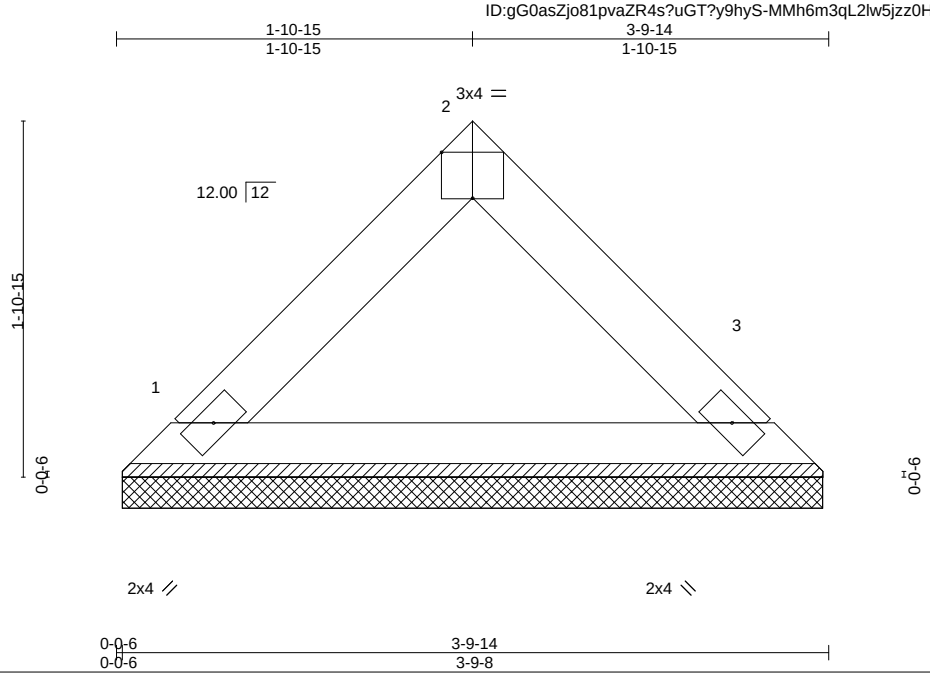


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 12 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-9-2, 3=3-9-2
Max Horz 1=-37(LC 8)
Max Uplift 1=-4(LC 13), 3=-4(LC 13)
Max Grav 1=125(LC 1), 3=125(LC 1)

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

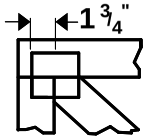
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip 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 30.0psf 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 100 lb uplift at joint(s) 1, 3.

February 23,2023

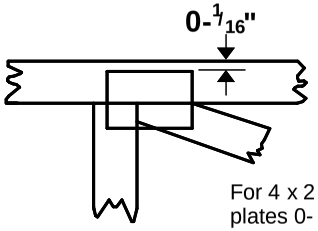
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

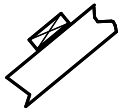
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

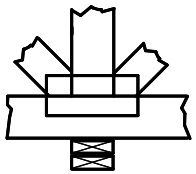
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

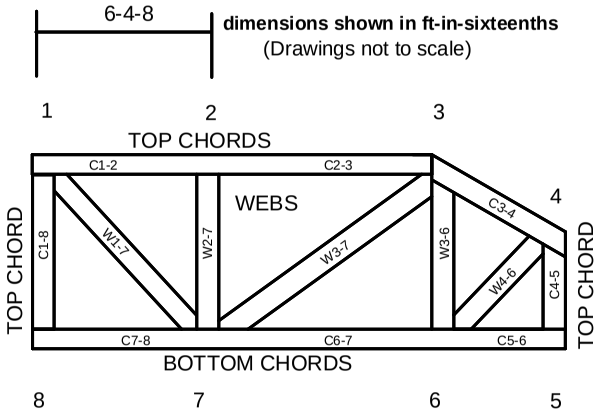


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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