ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0822-4268
Lot 146 Hidden Lakes

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: I54207089 thru I54207108

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

North Carolina COA: C-0844

September 14,2022

Gilbert, Eric

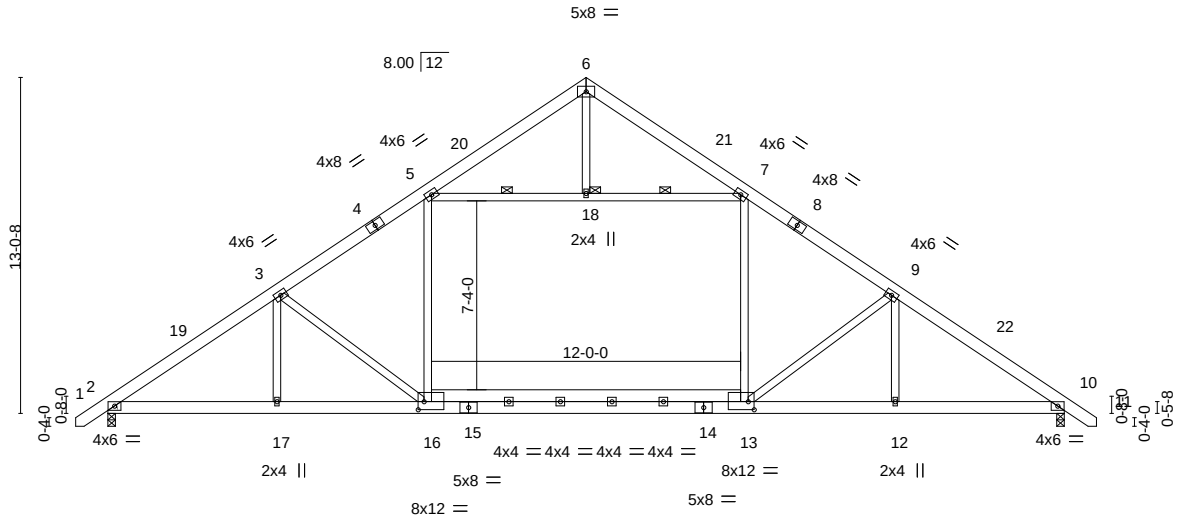
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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	Lot 146 Hidden Lakes
J0822-4268	A1	COMMON	5	1	I54207089
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:31 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-hUdeWO7AE0A1wU2zCgaV0y78wVnZQ3qG33ONsVydhbc

-1-3-0	6-6-12	12-6-12	18-6-12	24-6-12	30-6-12	37-1-8	38-4-8
1-3-0	6-6-12	6-0-0	6-0-0	6-0-0	6-0-0	6-6-12	1-3-0

Scale = 1:89.4



6-6-12	12-6-12	24-6-12	30-6-12	37-1-8
6-6-12	6-0-0	12-0-0	6-0-0	6-6-12

Plate Offsets (X,Y)-- [13:0-2-12,0-3-12], [16:0-2-12,0-3-12]

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	0.24	Vert(LL)	-0.30	16-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.35	16-17	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.07	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.26	16-17	>999	240	Weight: 307 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 4-10-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 5-18, 7-18
JOINTS 1 Brace at Jt(s): 18

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=314(LC 11)
Max Uplift 2=-95(LC 12), 10=-95(LC 13)
Max Grav 2=1716(LC 19), 10=1716(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2537/415, 3-5=-2247/442, 5-6=-517/204, 6-7=-517/204, 7-9=-2250/441, 9-10=-2540/416
BOT CHORD 2-17=-205/2215, 16-17=-205/2215, 13-16=-84/1872, 12-13=-213/1982, 10-12=-213/1982
WEBS 5-16=0/727, 3-16=-541/231, 7-13=0/729, 9-13=-541/238, 5-18=-1447/350, 7-18=-1447/350

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) -1-1-1 to 3-3-12, Interior(1) 3-3-12 to 18-6-12, Exterior(2) 18-6-12 to 22-11-9, Interior(1) 22-11-9 to 38-2-9 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 95 lb uplift at joint 2 and 95 lb uplift at joint 10.

September 14,2022

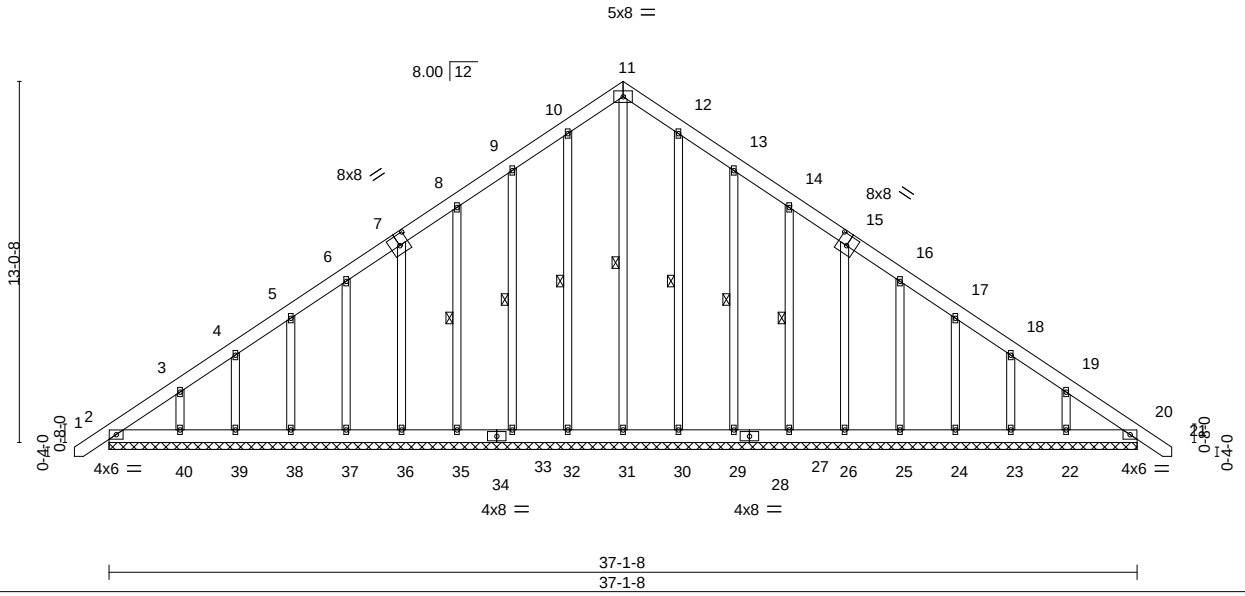
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	A1GE	GABLE	1	1	I54207090
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:33 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-dtlPx48RmdRl9oBMK5dz6NCXLJhvu1WZWNtUwNydhba

1-3-0 18-6-12 37-1-8 38-4-8
1-3-0 18-6-12 18-6-12 1-3-0

Scale = 1:83.2



37-1-8
37-1-8

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

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	0.06	Vert(LL)	-0.00	20	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	20	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	20	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 363 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 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.
WEBS 1 Row at midpt 11-31, 10-32, 9-33, 8-35, 12-30, 13-29, 14-27

REACTIONS. All bearings 37-1-8.
(lb) - Max Horz 2=-393(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 32, 35, 36, 37, 38, 39, 30, 27, 26, 25, 24, 23 except 33=-101(LC 12), 40=-124(LC 12), 29=-105(LC 13), 22=-120(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 20, 32, 33, 35, 36, 37, 38, 39, 40, 30, 29, 27, 26, 25, 24, 23, 22 except 31=260(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-398/296, 3-4=-294/250, 8-9=-194/259, 9-10=-261/309, 10-11=-290/333, 11-12=-290/333, 12-13=-261/294, 19-20=-307/216
BOT CHORD 2-40=-199/310, 39-40=-199/310, 38-39=-199/310, 37-38=-199/310, 36-37=-199/310, 35-36=-203/312, 33-35=-203/312, 32-33=-203/312, 31-32=-203/312, 30-31=-203/312, 29-30=-203/312, 27-29=-203/312, 26-27=-203/312, 25-26=-199/308, 24-25=-199/308, 23-24=-199/308, 22-23=-199/308, 20-22=-199/308

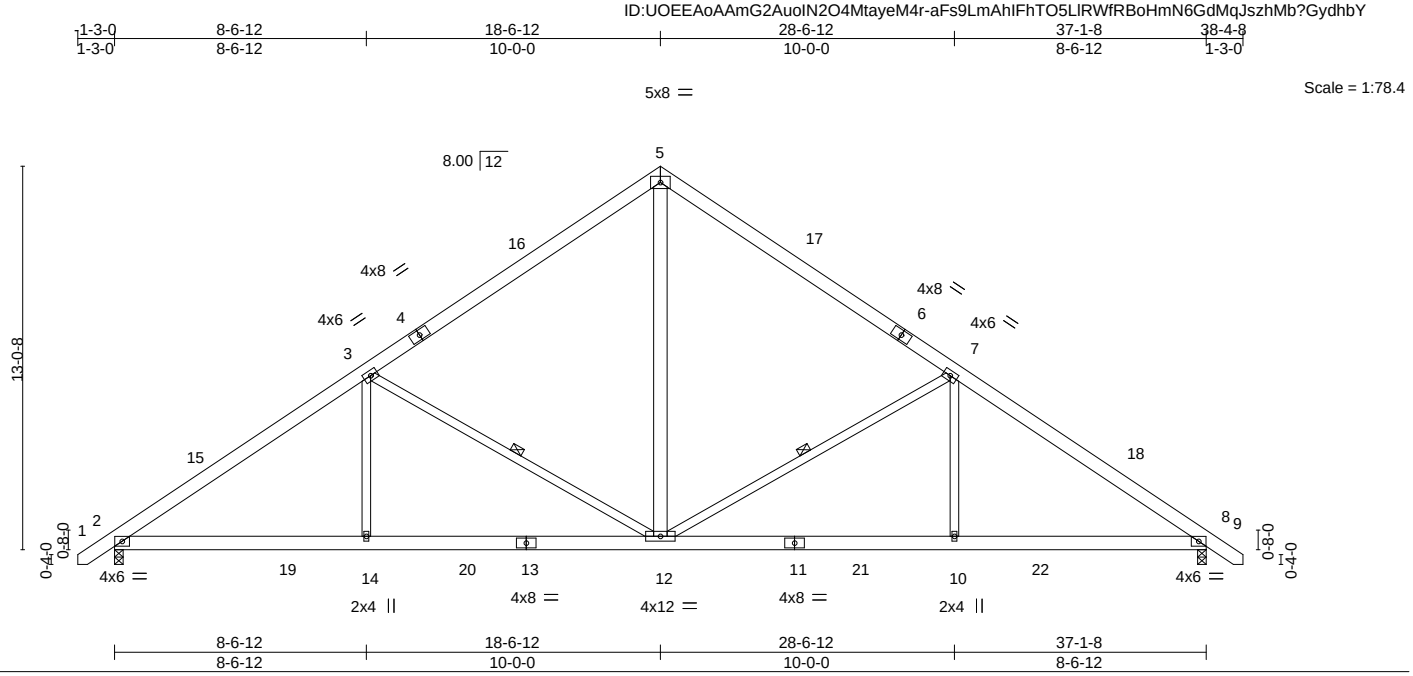
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 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, 32, 35, 36, 37, 38, 39, 30, 27, 26, 25, 24, 23 except (jt=lb) 33=101, 40=124, 29=105, 22=120.

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	A2	COMMON	5	1	I54207091
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:35 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-aFs9LmAhIFhTO5LlRWfRBoHmN6GdMqJszhMb?GydhbY



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	0.41	Vert(LL)	-0.08	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.17	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.04	14	>999	240	Weight: 276 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
5-12: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-12, 3-12

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-314(LC 10)
Max Uplift 2=-95(LC 12), 8=-95(LC 13)
Max Grav 2=1714(LC 19), 8=1714(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2499/421, 3-5=-1627/424, 5-7=-1627/424, 7-8=-2499/421
BOT CHORD 2-14=-190/2178, 12-14=-190/2178, 10-12=-200/1943, 8-10=-200/1943
WEBS 5-12=-174/1127, 7-12=-1011/301, 7-10=0/531, 3-12=-1010/301, 3-14=0/531

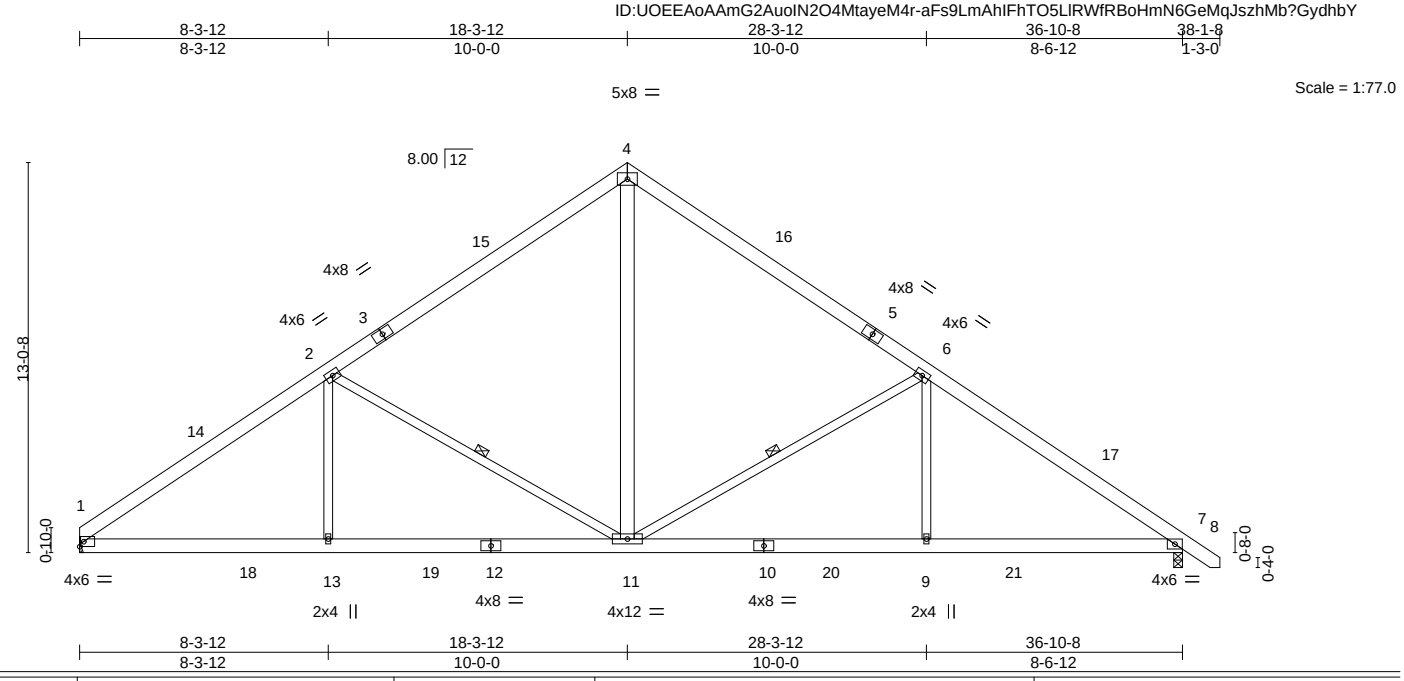
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-1 to 3-3-12, Interior(1) 3-3-12 to 18-6-12, Exterior(2) 18-6-12 to 22-11-9, Interior(1) 22-11-9 to 38-2-9 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.

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	A3	COMMON	5	1	I54207092
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:35 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-aFs9LmAhIFhTO5LlRWfRBoHmN6GeMqJszhMb?GydhbY



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	0.41	Vert(LL)	-0.08	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.17	9-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.04	13	>999	240	Weight: 272 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
4-11: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-11, 2-11

REACTIONS. (size) 1=Mechanical, 7=0-3-8
Max Horz 1=-310(LC 8)
Max Uplift 1=-76(LC 12), 7=-95(LC 13)
Max Grav 1=1638(LC 19), 7=1708(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2448/428, 2-4=-1616/428, 4-6=-1616/423, 6-7=-2488/420
BOT CHORD 1-13=-202/2147, 11-13=-202/2147, 9-11=-203/1934, 7-9=-203/1934
WEBS 4-11=-180/1115, 6-11=-1011/301, 6-9=0/531, 2-11=-985/300, 2-13=0/530

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) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 18-3-12, Exterior(2) 18-3-12 to 22-8-9, Interior(1) 22-8-9 to 37-11-9 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) 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) 1, 7.

September 14,2022

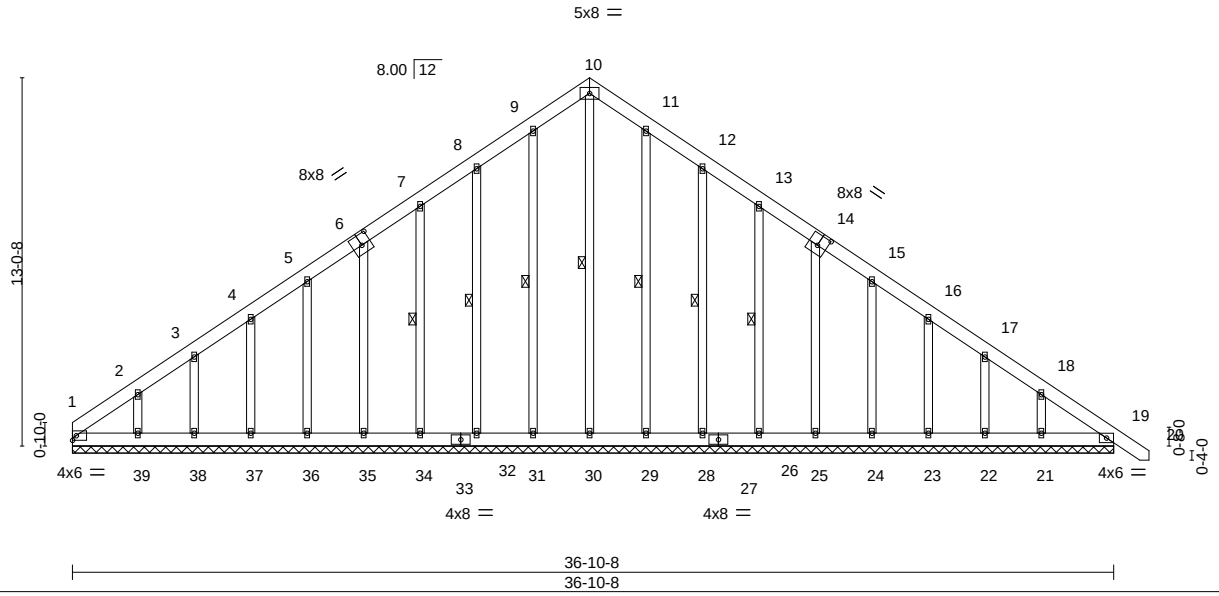
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	A3GE	GABLE	1	1	I54207093
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:37 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-We_wmRBxqsxBePV7ZxhvGDNCJw2rqrV8R?ri38ydhbW

18-3-12 36-10-8 38-1-8
18-3-12 18-6-12 1-3-0

Scale = 1:81.6



36-10-8
36-10-8

Plate Offsets (X,Y)-- [6:0-4-0,0-4-8], [14:0-4-0,0-4-8]

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	0.06	Vert(LL)	-0.00	19	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	19	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	19	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 358 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 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.
WEBS 1 Row at midpt 10-30, 9-31, 8-32, 7-34, 11-29, 12-28, 13-26

REACTIONS. All bearings 36-10-8.
(lb) - Max Horz 1=-387(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 19, 31, 34, 35, 36, 37, 38, 29, 26, 25, 24, 23, 22 except 1=-131(LC 10), 32=-101(LC 12), 39=-158(LC 12), 28=-105(LC 13), 21=-120(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 19, 31, 32, 34, 35, 36, 37, 38, 39, 29, 28, 26, 25, 24, 23, 22, 21 except 30=260(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-417/309, 2-3=-294/249, 7-8=-195/259, 8-9=-262/308, 9-10=-290/333, 10-11=-290/333, 11-12=-262/295, 18-19=-307/216
BOT CHORD 1-39=-199/310, 38-39=-199/310, 37-38=-199/310, 36-37=-199/310, 35-36=-199/310, 34-35=-203/312, 32-34=-203/312, 31-32=-203/312, 30-31=-203/312, 29-30=-203/312, 28-29=-203/312, 26-28=-203/312, 25-26=-203/312, 24-25=-199/309, 23-24=-199/309, 22-23=-199/309, 21-22=-199/309, 19-21=-199/309

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) 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) 19, 31, 34, 35, 36, 37, 38, 29, 26, 25, 24, 23, 22 except (jt=lb) 1=131, 32=101, 39=158, 28=105, 21=120.

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	B1-GR	Common Girder	1	2	I54207094

Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:40 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-wDg2PTEq7nJlVsEiE3Fcur?bL7wN19xb7y4MgTydhbT

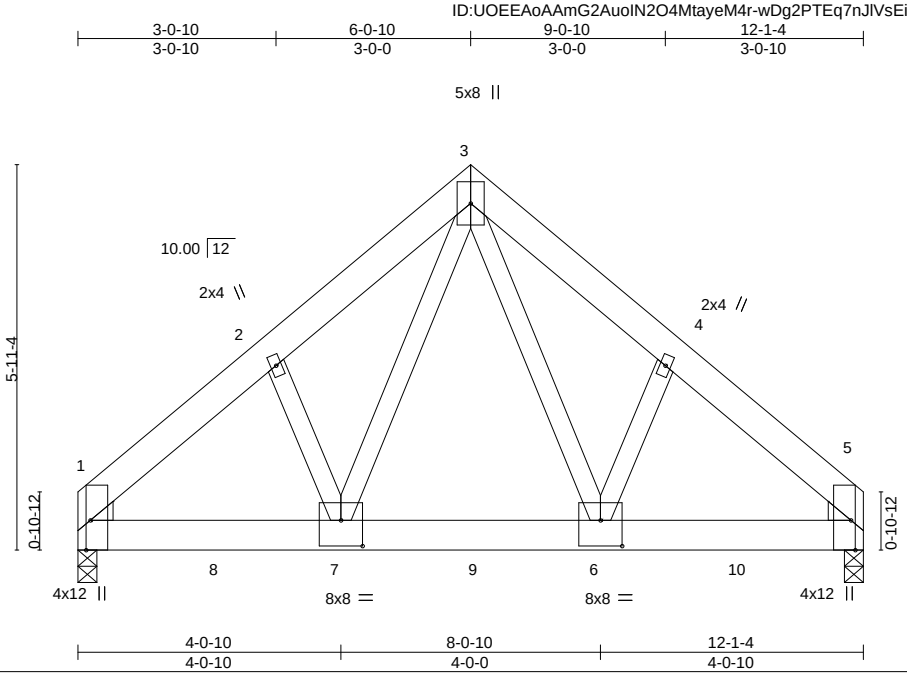


Plate Offsets (X,Y)-- [1:0-5-8,Edge], [5:0-5-8,Edge], [6:0-4-0,0-4-12], [7:0-4-0,0-4-12]

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	0.52	Vert(LL)	-0.03	6-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.06	6-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.02	6-7	>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.2 , Right: 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=0-3-8, 5=0-3-8
Max Horz 1=130(LC 24)
Max Uplift 1=-236(LC 8), 5=-242(LC 9)
Max Grav 1=4207(LC 2), 5=4312(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4996/305, 2-3=-4749/350, 3-4=-4747/350, 4-5=-4991/304
BOT CHORD 1-7=-221/3498, 6-7=-130/2591, 5-6=-179/3498
WEBS 3-6=-232/3071, 4-6=-129/499, 3-7=-232/3079, 2-7=-129/505

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 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 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=236, 5=242.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1538 lb down and 96 lb up at 2-2-4, 1538 lb down and 96 lb up at 4-2-4, 1538 lb down and 96 lb up at 6-2-4, and 1538 lb down and 96 lb up at 8-2-4, and 1538 lb down and 96 lb up at 10-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-5=-60, 1-5=-20

September 14,2022

Continued on page 2

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

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 6=-1445(B) 7=-1445(B) 8=-1445(B) 9=-1445(B) 10=-1445(B)

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	B1GE	COMMON SUPPORTED GAB	1	1	I54207095
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:38 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-_qYI_nCZbA32FZ4J6eC8pQvNWKOIZKeIgfbFcbydhbV

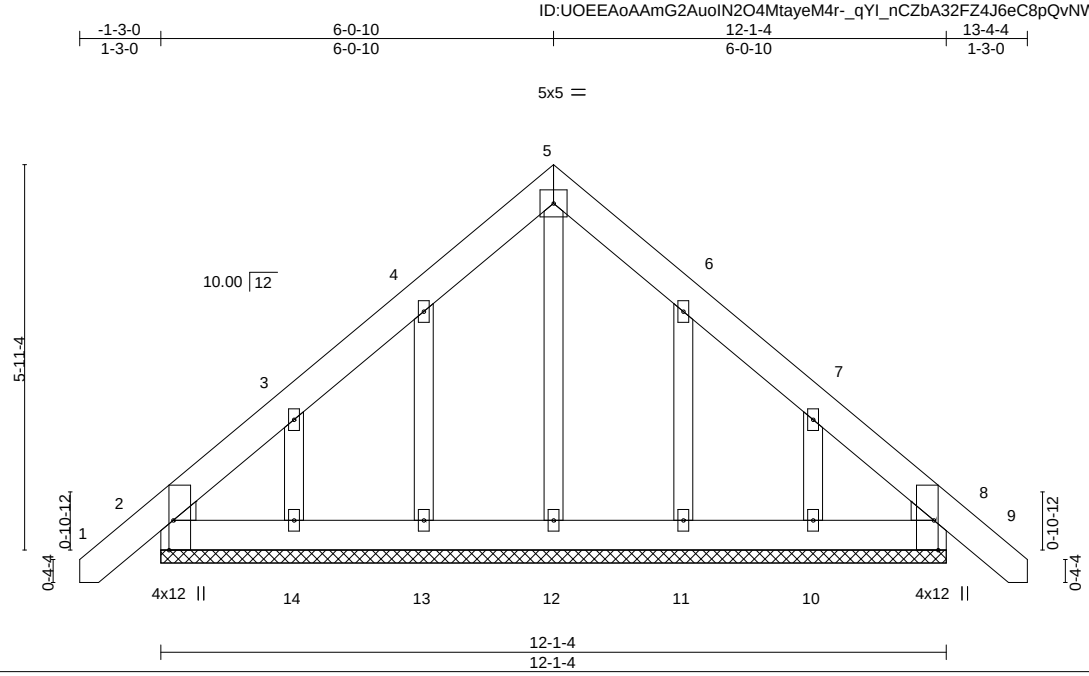


Plate Offsets (X,Y)-- [2:0-5-8,Edge], [8:0-5-8,Edge]

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	0.03	Vert(LL)	-0.00	8	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	8	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 97 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.2 , Right: 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 12-1-4.
(lb) - Max Horz 2=179(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 11 except 13=-102(LC 12), 14=-143(LC 12), 10=-141(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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 Exterior(2) 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) The Fabrication Tolerance at joint 2 = 19%, joint 8 = 19%
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 11 except (jt=lb) 13=102, 14=143, 10=141.

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	C1	COMMON	3	1	I54207096
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:41 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-OPDQcpESu5Rc60puommrQ3XsOXMNmhGkMcpvCvydhbS

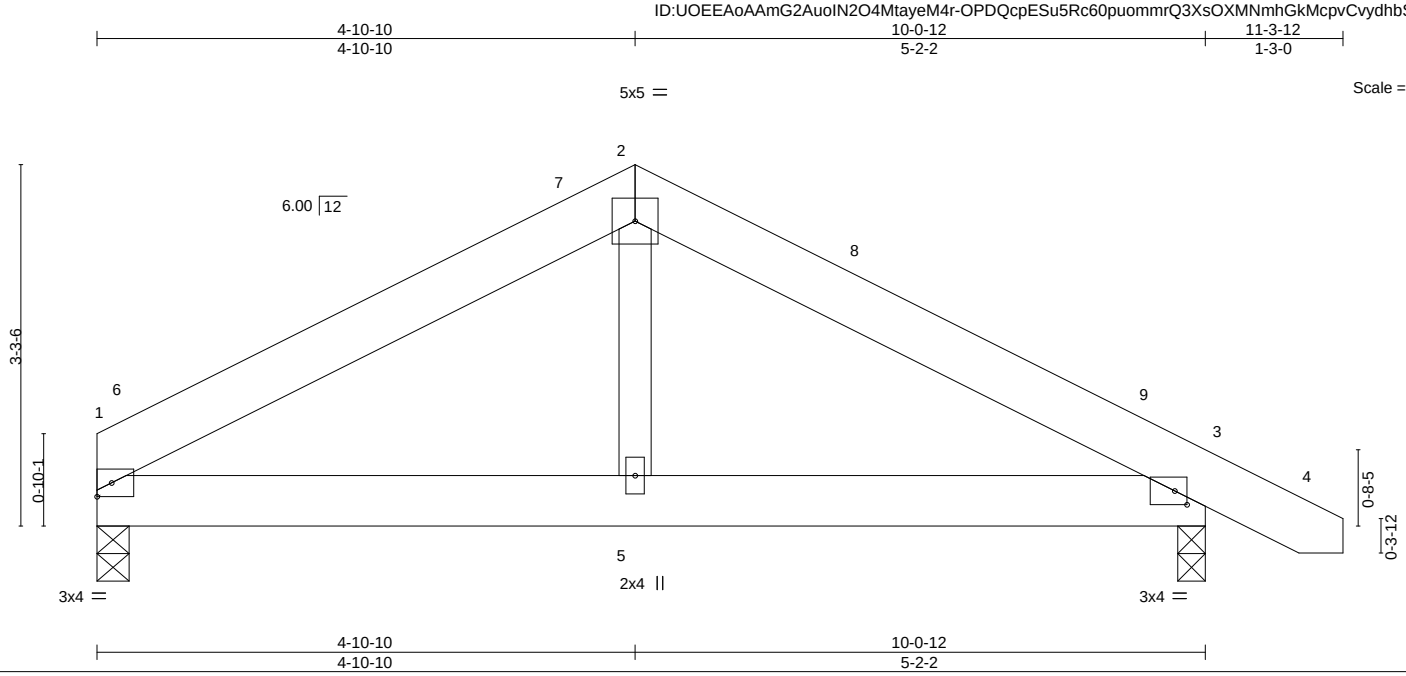


Plate Offsets (X,Y)-- [3:0-1-5,0-1-8]

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	0.18	Vert(LL)	-0.00	3-5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.01	3-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.02	3-5	>999	240	Weight: 57 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.

REACTIONS. (size) 1=0-3-8, 3=0-3-0
Max Horz 1=-42(LC 8)
Max Uplift 1=-83(LC 9), 3=-93(LC 8)
Max Grav 1=387(LC 1), 3=466(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-513/583, 2-3=-511/572
BOT CHORD 1-5=-405/384, 3-5=-405/384
WEBS 2-5=-309/232

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 4-10-10, Exterior(2) 4-10-10 to 9-3-7, Interior(1) 9-3-7 to 11-1-6 zone; porch 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 100 lb uplift at joint(s) 1, 3.

September 14,2022

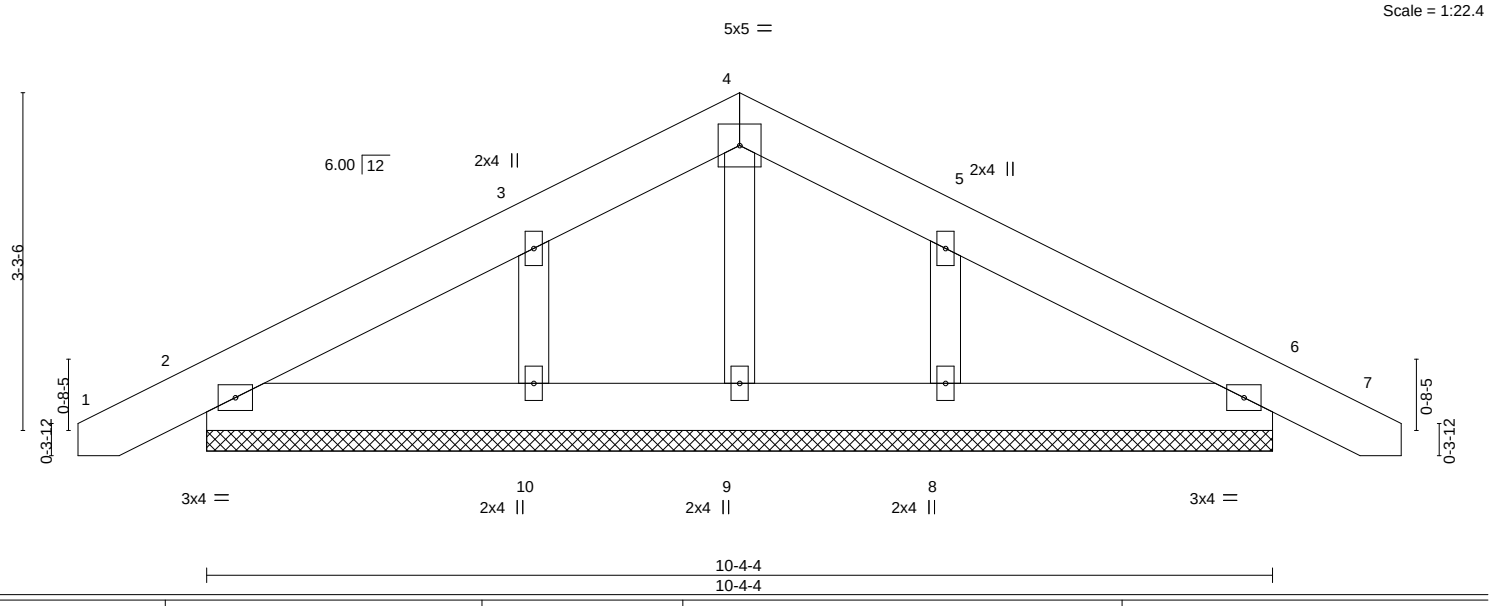
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	C1GE	COMMON SUPPORTED GAB	1	1	I54207097
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:41 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-OPDQcpESu5Rc60puommrQ3XulXPumhbkMcpvCvydhbS

-1-3-0 | 5-2-2 | 10-4-4 | 11-7-4
1-3-0 | 5-2-2 | 5-2-2 | 1-3-0

Scale = 1:22.4



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	0.03	Vert(LL)	0.00	6	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	6	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 66 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 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 10-4-4.
(lb) - Max Horz 2=-63(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-108(LC 12), 8=-105(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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 Exterior(2) 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) Gable requires continuous bottom chord bearing.
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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6 except (jt=lb) 10=108, 8=105.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6.

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	D1	COMMON	5	1	I54207098
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:42 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-scnpp9F4fOZTkAN5LUH4zG40ixjgV7xubGZTlMydhbR

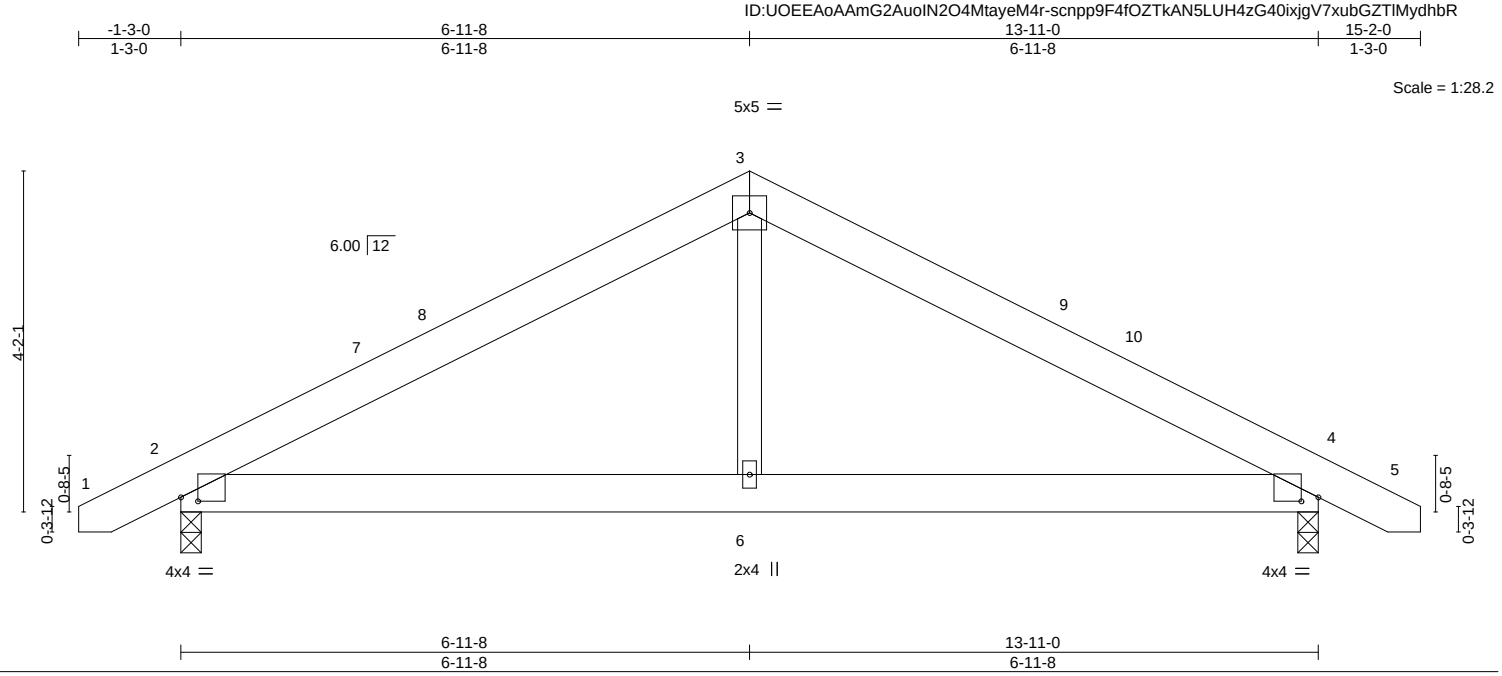


Plate Offsets (X,Y)-- [2:0-2-8,0-0-9], [4:0-2-8,0-0-9]

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)	0.04	4-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 81 lb	FT = 20%

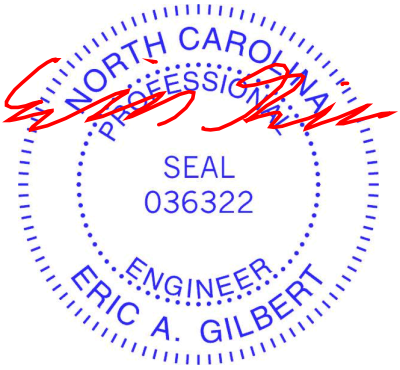
LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

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.

REACTIONS. (size) 2=0-3-0, 4=0-3-0
Max Horz 2=52(LC 11)
Max Uplift 2=-125(LC 9), 4=-125(LC 8)
Max Grav 2=617(LC 1), 4=617(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-746/746, 3-4=-746/746
BOT CHORD 2-6=-530/574, 4-6=-530/574
WEBS 3-6=-417/328

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) -1-0-10 to 3-4-3, Interior(1) 3-4-3 to 6-11-8, Exterior(2) 6-11-8 to 11-4-5, Interior(1) 11-4-5 to 14-11-10 zone; porch 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 100 lb uplift at joint(s) except (jt=lb) 2=125, 4=125.



September 14,2022

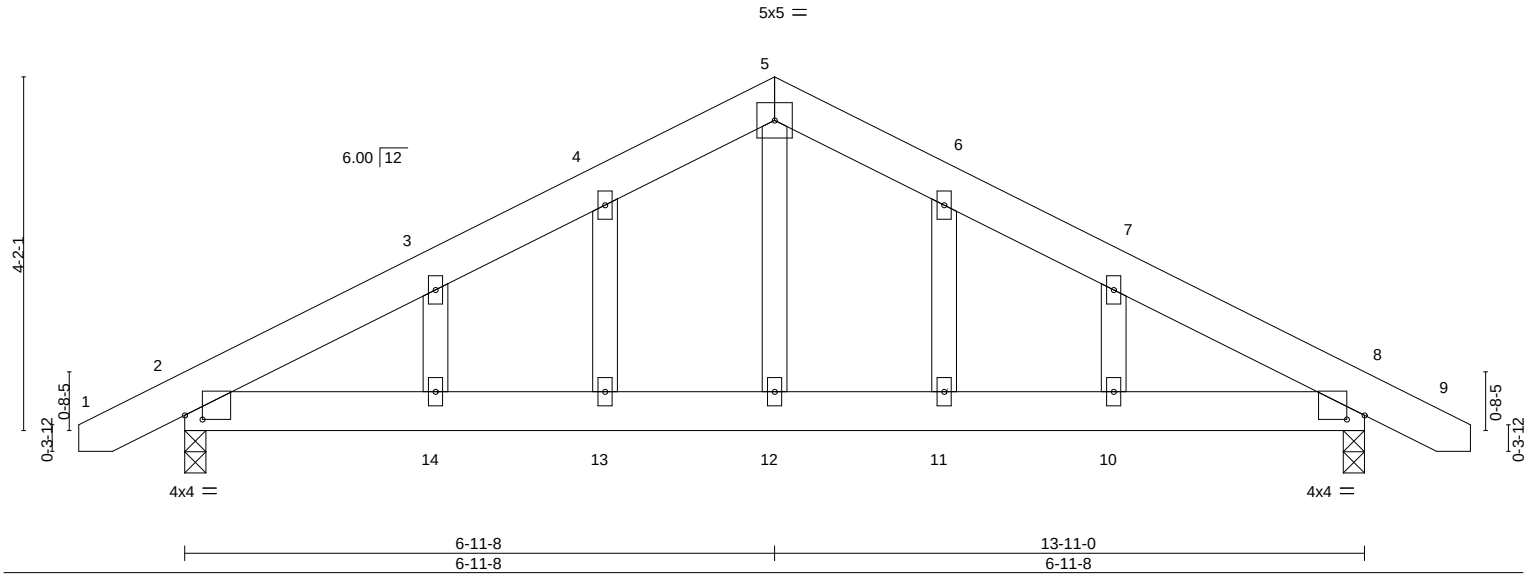
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	D1GE	GABLE	1	1	I54207099
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:43 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-LoLB1VGiQihKMKyHvBoJWUdCJL2XEa31pwl0HoydhbQ

-1-3-0 6-11-8 13-11-0 15-2-0
1-3-0 6-11-8 6-11-8 1-3-0

Scale = 1:27.2



6-11-8 13-11-0
6-11-8 6-11-8

Plate Offsets (X,Y)-- [2:0-2-8,0-0-9], [8:0-2-8,0-0-9]

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)	-0.02	14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.04	13-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	10	>999	240	Weight: 91 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 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.
BOT CHORD Rigid ceiling directly applied or 9-9-4 oc bracing.

REACTIONS. (size) 2=0-3-0, 8=0-3-0
Max Horz 2=81(LC 12)
Max Uplift 2=-163(LC 9), 8=-163(LC 8)
Max Grav 2=617(LC 1), 8=617(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-744/783, 3-4=-665/789, 4-5=-642/816, 5-6=-642/816, 6-7=-665/789, 7-8=-744/783
BOT CHORD 2-14=-580/584, 13-14=-580/584, 12-13=-580/584, 11-12=-580/584, 10-11=-580/584, 8-10=-580/584
WEBS 5-12=-452/295

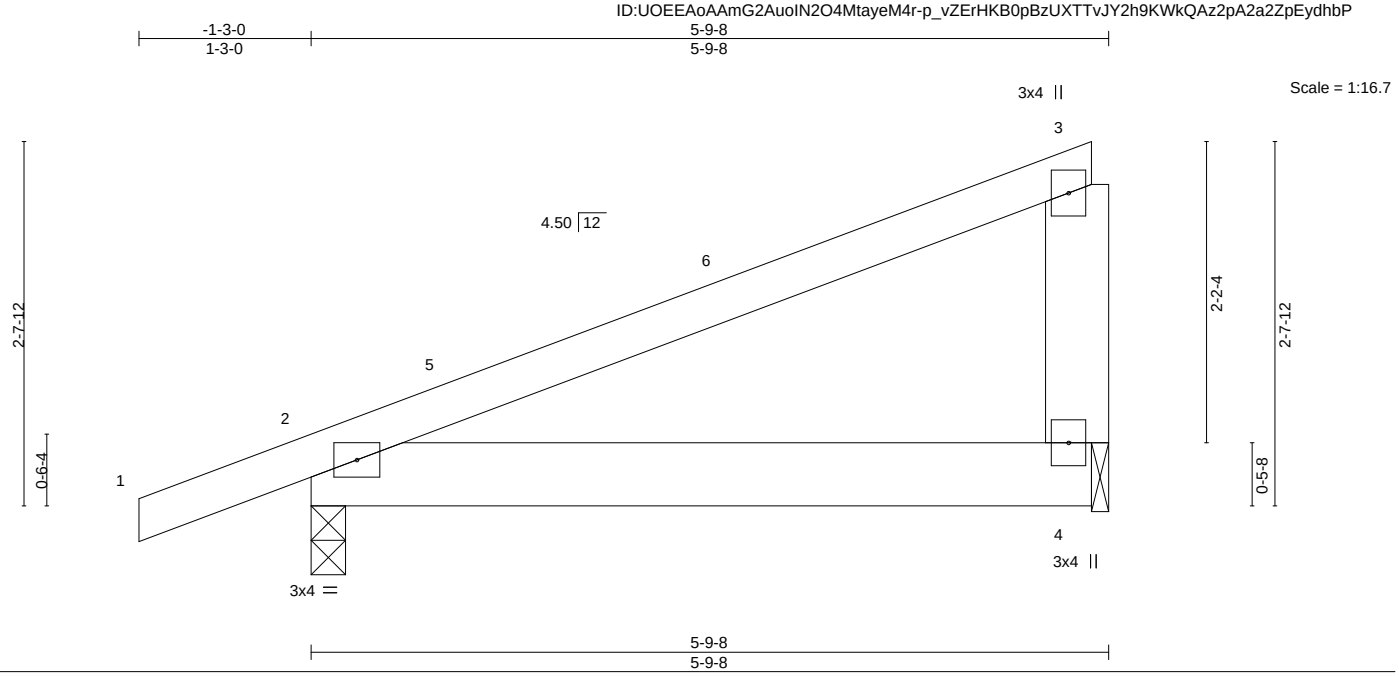
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=163, 8=163.

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	M1	MONOPITCH	4	1	I54207100
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:44 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-p_vZErHKB0pBzUXTTvJY2h9KWkQAz2pA2a2ZpEydhbP



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	0.38	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 29 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-1-8
Max Horz 2=84(LC 8)
Max Uplift 2=-58(LC 8), 4=-35(LC 12)
Max Grav 2=310(LC 1), 4=207(LC 1)

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

NOTES-
1) 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) -1-3-0 to 3-1-13, Interior(1) 3-1-13 to 5-6-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	M2	HALF HIP SUPPORTED	6	1	I54207101
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:45 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-HATxSAHyxJx2be6g1cqnbviXS8kjiV3KHEn7MhydhbO

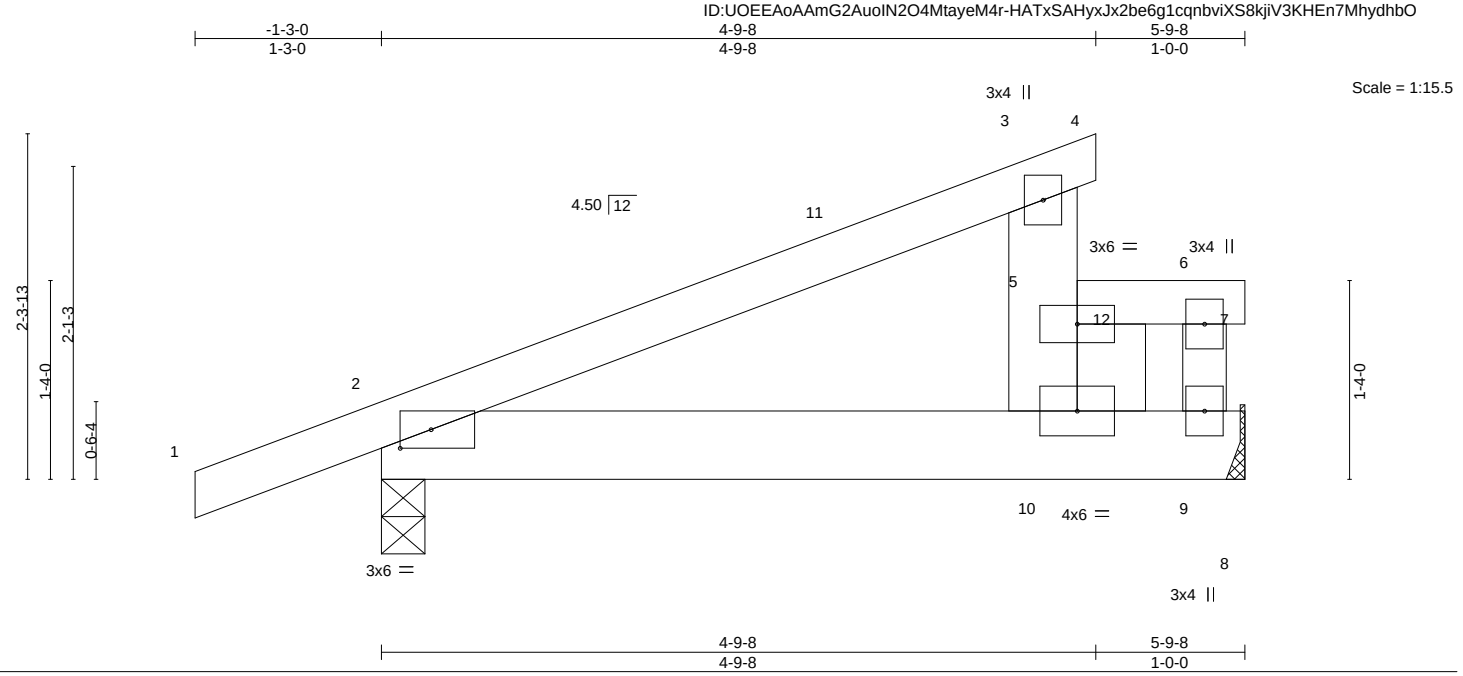


Plate Offsets (X,Y)-- [2:0-2-8,0-1-8]

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	0.24	Vert(LL)	-0.00	10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.01	2-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R		Wind(LL)	0.01	2-10	>999	240	Weight: 31 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
6-9: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-10, 5-7. Except: 6-0-0 oc bracing: 3-5
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 9=Mechanical, 2=0-3-8
Max Horz 2=104(LC 12)
Max Uplift 9=-61(LC 9), 2=-66(LC 8)
Max Grav 9=745(LC 19), 2=366(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-352/217, 5-10=-269/381, 6-9=-409/371
BOT CHORD 2-10=-354/292

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) and C-C Corner(3) -1-3-0 to 3-1-13, Exterior(2) 3-1-13 to 5-9-8 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) Provide adequate drainage to prevent water ponding.
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.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 2.
10) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 5-12=-40, 6-12=-80, 6-7=-20, 2-8=-20

September 14,2022

Continued on page 2

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

LOAD CASE(S) Standard

Concentrated Loads (lb)
Vert: 12=-500

2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-50, 3-4=-50, 5-12=-100, 6-12=-130, 6-7=-20, 2-8=-20
Concentrated Loads (lb)
Vert: 12=-438

3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 5-6=-40, 6-7=-20, 2-8=-40
Concentrated Loads (lb)
Vert: 12=-375

4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=124, 2-11=91, 3-11=57, 3-4=153, 5-6=40, 6-7=54, 2-8=-12
Horz: 1-2=-136, 2-11=-103, 3-11=-69, 3-4=-165, 3-5=-65
Concentrated Loads (lb)
Vert: 12=492

5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=50, 2-3=91, 3-4=84, 5-6=76, 6-7=-12, 2-8=-12
Horz: 1-2=-62, 2-3=-103, 3-4=-96, 3-5=-65
Concentrated Loads (lb)
Vert: 12=522

6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-2, 2-3=-45, 3-4=17, 5-6=-58, 6-7=-31, 2-8=-20
Horz: 1-2=-18, 2-3=25, 3-4=-37, 3-5=51
Concentrated Loads (lb)
Vert: 12=-524

7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-38, 2-3=-45, 3-4=-38, 5-6=-58, 6-7=-20, 2-8=-20
Horz: 1-2=18, 2-3=25, 3-4=18, 3-5=51
Concentrated Loads (lb)
Vert: 12=-524

8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=34, 2-3=19, 3-4=12, 5-6=-11, 6-7=2, 2-8=-12
Horz: 1-2=-46, 2-3=-31, 3-4=-24, 3-5=7
Concentrated Loads (lb)
Vert: 12=42

9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 2-3=13, 3-4=28, 5-6=1, 6-7=14, 2-8=-12
Horz: 1-2=-18, 2-3=-25, 3-4=-40, 3-5=-27
Concentrated Loads (lb)
Vert: 12=54

10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=4, 2-3=-3, 3-4=4, 5-6=-33, 6-7=-6, 2-8=-20
Horz: 1-2=-24, 2-3=-17, 3-4=-24, 3-5=34
Concentrated Loads (lb)
Vert: 12=-423

11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-2, 2-3=-9, 3-4=-2, 5-6=-21, 6-7=6, 2-8=-20
Horz: 1-2=-18, 2-3=-11, 3-4=-18, 3-5=-0
Concentrated Loads (lb)
Vert: 12=-292

12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-11, 6-7=2, 2-8=-12
Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39
Concentrated Loads (lb)
Vert: 12=54

13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=1, 6-7=14, 2-8=-12
Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27
Concentrated Loads (lb)
Vert: 12=54

14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

LOAD CASE(S) Standard

Uniform Loads (plf)
Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-11, 6-7=2, 2-8=-12
Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39
Concentrated Loads (lb)
Vert: 12=54

15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=1, 6-7=14, 2-8=-12
Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27
Concentrated Loads (lb)
Vert: 12=54

16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 2-3=-1, 3-4=6, 5-6=-33, 6-7=-6, 2-8=-20
Horz: 1-2=-26, 2-3=-19, 3-4=-26, 3-5=-12
Concentrated Loads (lb)
Vert: 12=-292

17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-6, 2-3=-13, 3-4=-6, 5-6=-21, 6-7=6, 2-8=-20
Horz: 1-2=-14, 2-3=-7, 3-4=-14, 3-5=-0
Concentrated Loads (lb)
Vert: 12=-292

18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 5-6=-120, 6-7=-20, 2-8=-20
Concentrated Loads (lb)
Vert: 12=-250

19) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-32, 2-3=-37, 3-4=-32, 5-12=-95, 6-12=-125, 6-7=-10, 2-8=-20
Horz: 1-2=-18, 2-3=-13, 3-4=-18, 3-5=26
Concentrated Loads (lb)
Vert: 12=-567

20) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-37, 2-3=-42, 3-4=-37, 5-12=-86, 6-12=-116, 6-7=-1, 2-8=-20
Horz: 1-2=-13, 2-3=-8, 3-4=-13, 3-5=-0
Concentrated Loads (lb)
Vert: 12=-469

21) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-31, 2-3=-36, 3-4=-31, 5-12=-95, 6-12=-125, 6-7=-10, 2-8=-20
Horz: 1-2=-19, 2-3=-14, 3-4=-19, 3-5=-9
Concentrated Loads (lb)
Vert: 12=-469

22) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-40, 2-3=-45, 3-4=-40, 5-12=-86, 6-12=-116, 6-7=-1, 2-8=-20
Horz: 1-2=-10, 2-3=-5, 3-4=-10, 3-5=-0
Concentrated Loads (lb)
Vert: 12=-469

23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 5-6=-40, 6-7=-20, 2-8=-20
Concentrated Loads (lb)
Vert: 12=-500

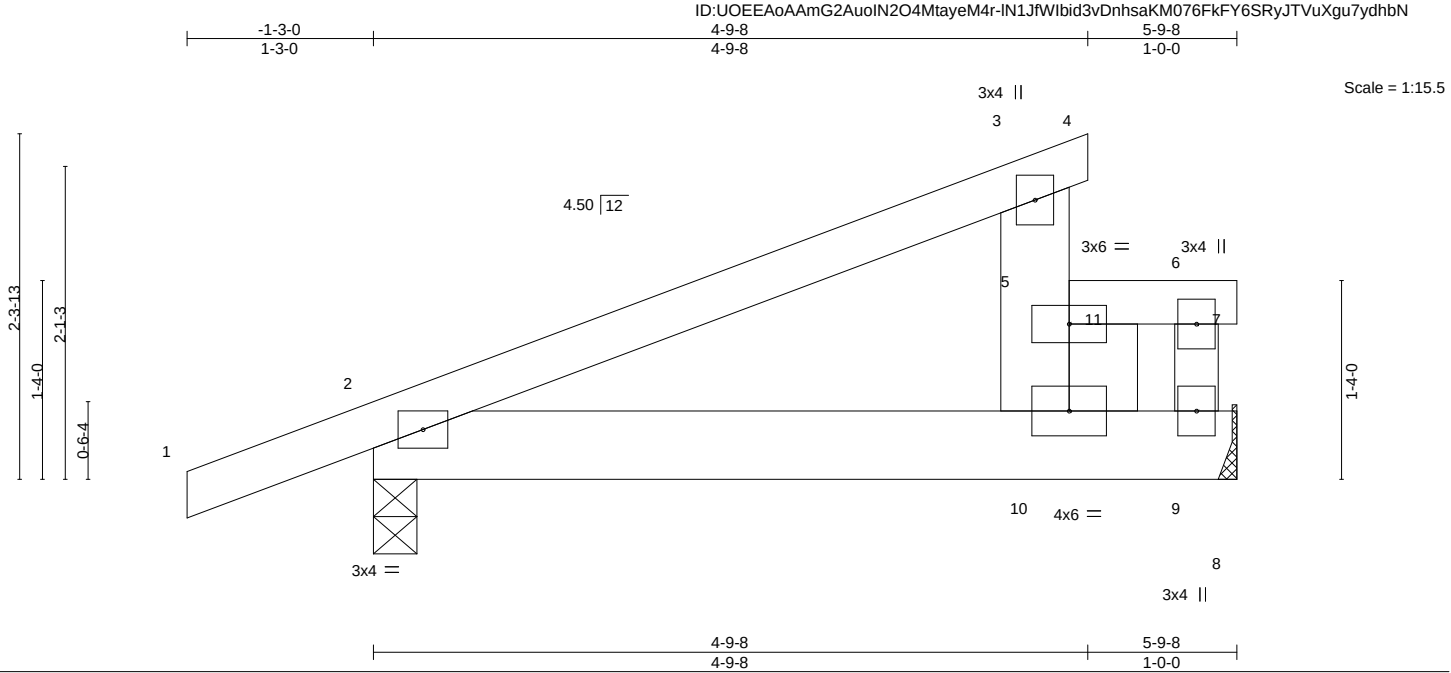
24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 5-12=-40, 6-12=-80, 6-7=-20, 2-8=-20
Concentrated Loads (lb)
Vert: 12=-500

25) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-50, 3-4=-50, 5-6=-100, 6-7=-20, 2-8=-20
Concentrated Loads (lb)
Vert: 12=-438

26) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 5-12=-100, 6-12=-130, 6-7=-20, 2-8=-20
Concentrated Loads (lb)
Vert: 12=-438

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	M2-GR	HALF HIP SUPPORTED	1	2	I54207102
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:46 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-lN1JfWIbid3vDnhsaKM076FkFY6SRyJTVuXgu7ydhbN



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	0.11	Vert(LL)	-0.00	10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	2-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R		Wind(LL)	0.00	10	>999	240	Weight: 61 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
6-9: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-10, 5-7. Except: 6-0-0 oc bracing: 3-5
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 9=Mechanical, 2=0-3-8
Max Horz 2=104(LC 8)
Max Uplift 2=-53(LC 4)
Max Grav 9=862(LC 15), 2=379(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-381/0, 5-10=-313/26, 6-9=-484/0
BOT CHORD 2-10=-22/308

NOTES-
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, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered 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 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) 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.
6) Provide adequate drainage to prevent water ponding.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
12) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

September 14,2022

Continued on page 2

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

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-4=-60, 5-11=-160, 6-11=-200, 6-7=-20, 2-8=-20
   Concentrated Loads (lb)
   Vert: 11=-500
2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-50, 3-4=-50, 5-11=-220, 6-11=-250, 6-7=-20, 2-8=-20
   Concentrated Loads (lb)
   Vert: 11=-438
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-3=-20, 3-4=-20, 5-6=-160, 6-7=-20, 2-8=-40
   Concentrated Loads (lb)
   Vert: 11=-375
4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=34, 2-3=19, 3-4=12, 5-6=-131, 6-7=2, 2-8=-12
   Horz: 1-2=-46, 2-3=-31, 3-4=-24, 3-5=7
   Concentrated Loads (lb)
   Vert: 11=42
5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=6, 2-3=13, 3-4=28, 5-6=-119, 6-7=14, 2-8=-12
   Horz: 1-2=-18, 2-3=-25, 3-4=-40, 3-5=-27
   Concentrated Loads (lb)
   Vert: 11=54
6) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=4, 2-3=-3, 3-4=4, 5-6=-153, 6-7=-6, 2-8=-20
   Horz: 1-2=-24, 2-3=-17, 3-4=-24, 3-5=34
   Concentrated Loads (lb)
   Vert: 11=-423
7) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-2, 2-3=-9, 3-4=-2, 5-6=-141, 6-7=6, 2-8=-20
   Horz: 1-2=-18, 2-3=-11, 3-4=-18, 3-5=-0
   Concentrated Loads (lb)
   Vert: 11=-292
8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-131, 6-7=2, 2-8=-12
   Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39
   Concentrated Loads (lb)
   Vert: 11=54
9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=-119, 6-7=14, 2-8=-12
   Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27
   Concentrated Loads (lb)
   Vert: 11=54
10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-131, 6-7=2, 2-8=-12
    Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39
    Concentrated Loads (lb)
    Vert: 11=54
11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=-119, 6-7=14, 2-8=-12
    Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27
    Concentrated Loads (lb)
    Vert: 11=54
12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=6, 2-3=-1, 3-4=6, 5-6=-153, 6-7=-6, 2-8=-20
    Horz: 1-2=-26, 2-3=-19, 3-4=-26, 3-5=-12
    Concentrated Loads (lb)
    Vert: 11=-292
13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-6, 2-3=-13, 3-4=-6, 5-6=-141, 6-7=6, 2-8=-20
    Horz: 1-2=-14, 2-3=-7, 3-4=-14, 3-5=-0
    Concentrated Loads (lb)
    Vert: 11=-292

Continued on page 3

LOAD CASE(S) Standard

14) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 5-6=-240, 6-7=-20, 2-8=-20
Concentrated Loads (lb)
Vert: 11=-250

15) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-32, 2-3=-37, 3-4=-32, 5-11=-215, 6-11=-245, 6-7=-10, 2-8=-20
Horz: 1-2=-18, 2-3=-13, 3-4=-18, 3-5=26
Concentrated Loads (lb)
Vert: 11=-567

16) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-37, 2-3=-42, 3-4=-37, 5-11=-206, 6-11=-236, 6-7=-1, 2-8=-20
Horz: 1-2=-13, 2-3=-8, 3-4=-13, 3-5=-0
Concentrated Loads (lb)
Vert: 11=-469

17) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-31, 2-3=-36, 3-4=-31, 5-11=-215, 6-11=-245, 6-7=-10, 2-8=-20
Horz: 1-2=-19, 2-3=-14, 3-4=-19, 3-5=-9
Concentrated Loads (lb)
Vert: 11=-469

18) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-40, 2-3=-45, 3-4=-40, 5-11=-206, 6-11=-236, 6-7=-1, 2-8=-20
Horz: 1-2=-10, 2-3=-5, 3-4=-10, 3-5=-0
Concentrated Loads (lb)
Vert: 11=-469

19) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 5-6=-160, 6-7=-20, 2-8=-20
Concentrated Loads (lb)
Vert: 11=-500

20) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 5-11=-160, 6-11=-200, 6-7=-20, 2-8=-20
Concentrated Loads (lb)
Vert: 11=-500

21) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-50, 3-4=-50, 5-6=-220, 6-7=-20, 2-8=-20
Concentrated Loads (lb)
Vert: 11=-438

22) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 5-11=-220, 6-11=-250, 6-7=-20, 2-8=-20
Concentrated Loads (lb)
Vert: 11=-438

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	V1GE	VALLEY	1	1	I54207103
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:47 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-DZbitsJDTxBmrxG281tFgKnw?yTEAMQdkYGDQZydhbM

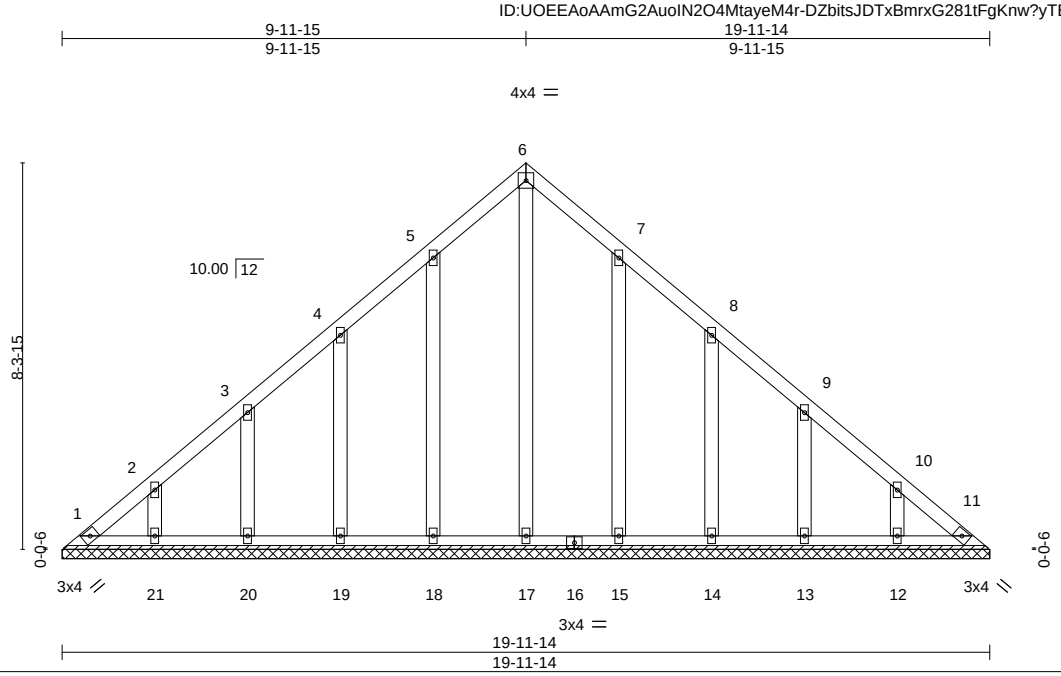


Plate Offsets (X,Y)-- [7:0-0-0,0-0-0], [8:0-0-0,0-0-0], [9:0-0-0,0-0-0], [10:0-0-0,0-0-0]

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 121 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 19-11-14.
(lb) - Max Horz 1=240(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 11 except 18=-110(LC 12), 19=-113(LC 12), 20=-110(LC 12), 21=-110(LC 12), 15=-108(LC 13), 14=-114(LC 13), 13=-110(LC 13), 12=-110(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 17, 18, 19, 20, 21, 15, 14, 13, 12

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-281/192

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) 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) 1, 11 except (jt=lb) 18=110, 19=113, 20=110, 21=110, 15=108, 14=114, 13=110, 12=110.

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	V2	VALLEY	1	1	I54207104
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:48 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-hl944CKrEEKdS5rEikOUDXK3jMm5vr4mzC0ny?ydhbL

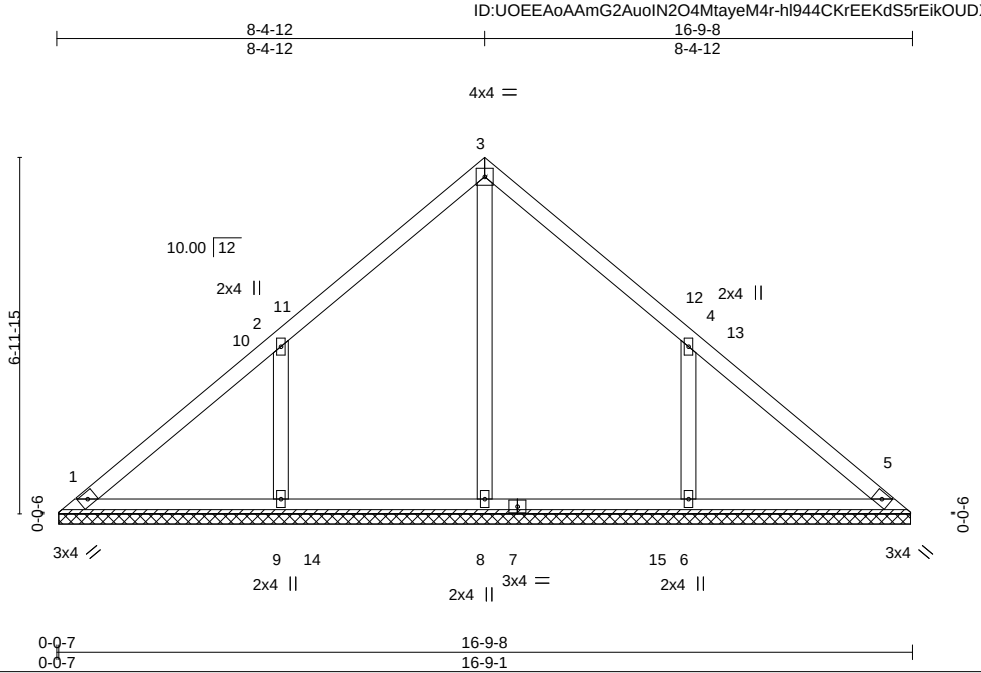


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

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	0.17	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	0.11	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 75 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 16-8-9.
(lb) - Max Horz 1=-160(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-153(LC 12), 6=-153(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=416(LC 22), 9=479(LC 19), 6=479(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-381/266, 4-6=-381/266

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) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 8-4-12, Exterior(2) 8-4-12 to 12-9-9, Interior(1) 12-9-9 to 16-4-11 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 except (jt=lb) 9=153, 6=153.
6) Non Standard bearing condition. Review required.

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	V3	VALLEY	1	1	I54207105
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:49 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-9yiSHYLT?YSU4FQRGSvjlltE9l7leIsvCslKVSydhbK

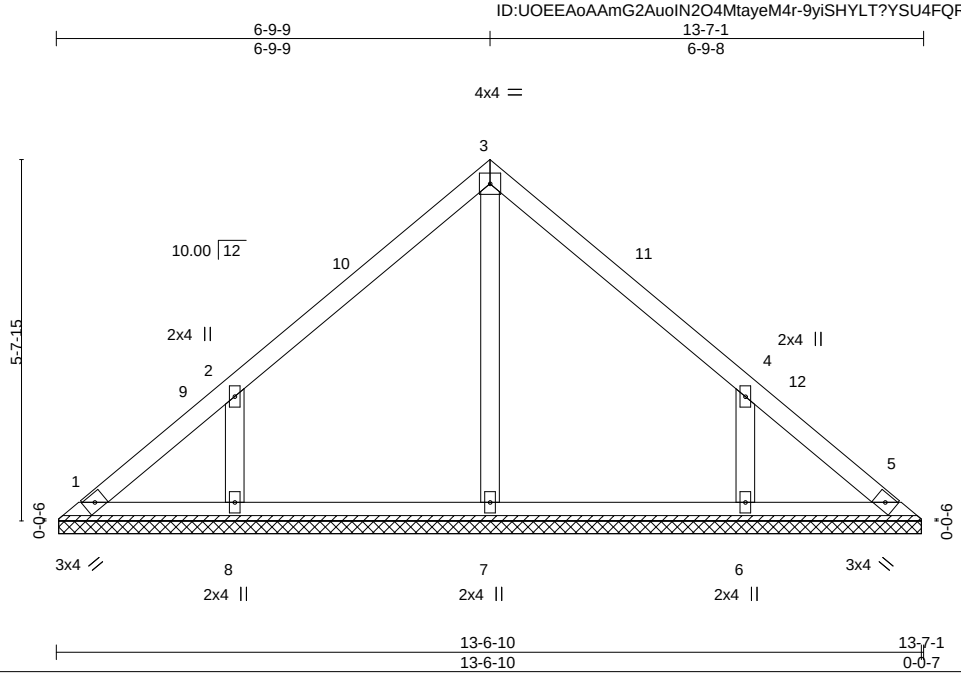


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

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	0.13	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	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 58 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 13-6-3.
(lb) - Max Horz 1=-128(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-127(LC 12), 6=-127(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=340(LC 19), 6=340(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-319/240, 4-6=-319/240

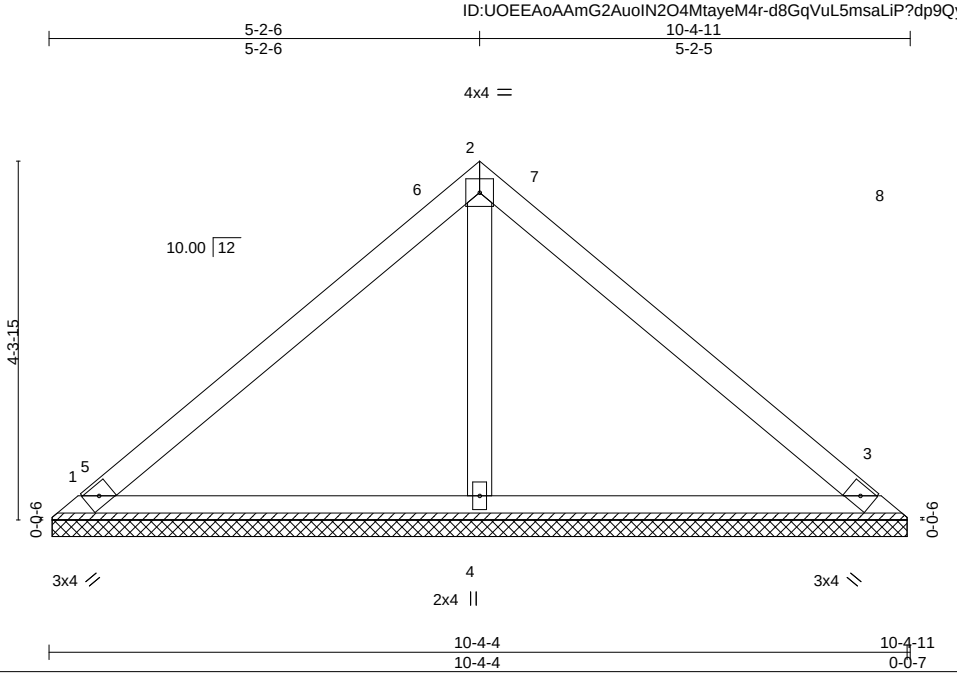
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 6-9-9, Exterior(2) 6-9-9 to 11-2-6, Interior(1) 11-2-6 to 13-2-4 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, 5 except (jt=lb) 8=127, 6=127.

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	V4	VALLEY	1	1	I54207106
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:50 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-d8GqVuL5msaLiP?dp9QyIyPN99SjNlM3QWVu1uydhbJ



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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 39 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=10-3-13, 3=10-3-13, 4=10-3-13
Max Horz 1=96(LC 11)
Max Uplift 1=-22(LC 13), 3=-31(LC 13)
Max Grav 1=205(LC 1), 3=205(LC 1), 4=357(LC 1)

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

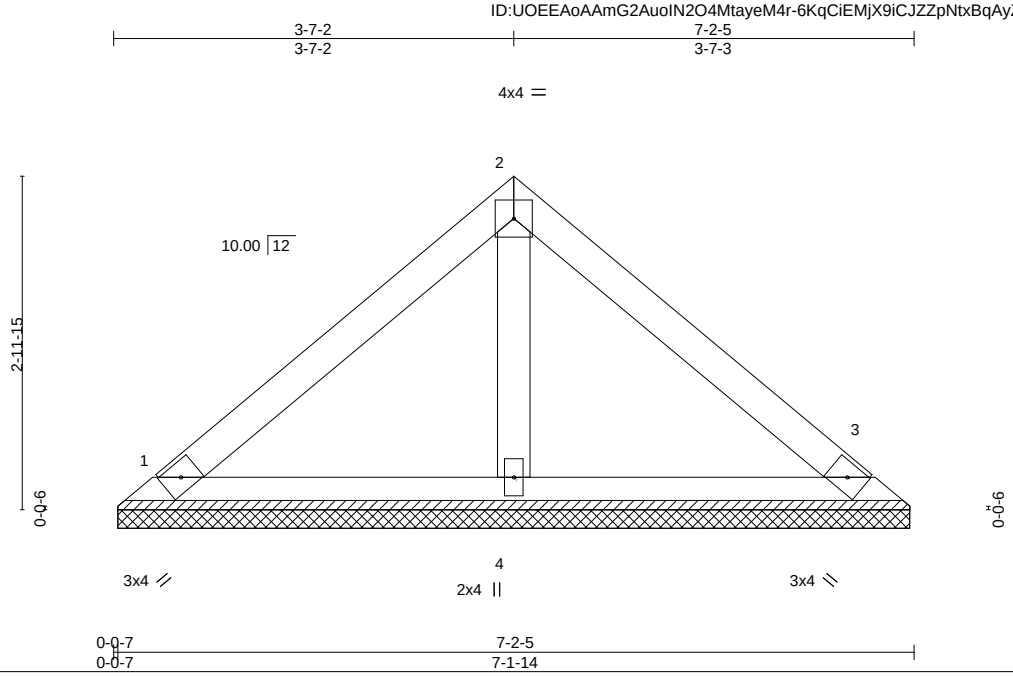
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 5-2-6, Exterior(2) 5-2-6 to 9-7-2, Interior(1) 9-7-2 to 9-11-14 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.

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	V5	VALLEY	1	1	I54207107
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:51 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-6KqCiEMjX9iCJZZpNtxBqAyZNZpP6CDCfAERZKydhbI



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	0.08	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: 26 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=7-1-6, 3=7-1-6, 4=7-1-6
Max Horz 1=-64(LC 10)
Max Uplift 1=-22(LC 13), 3=-28(LC 13)
Max Grav 1=148(LC 1), 3=148(LC 1), 4=215(LC 1)

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

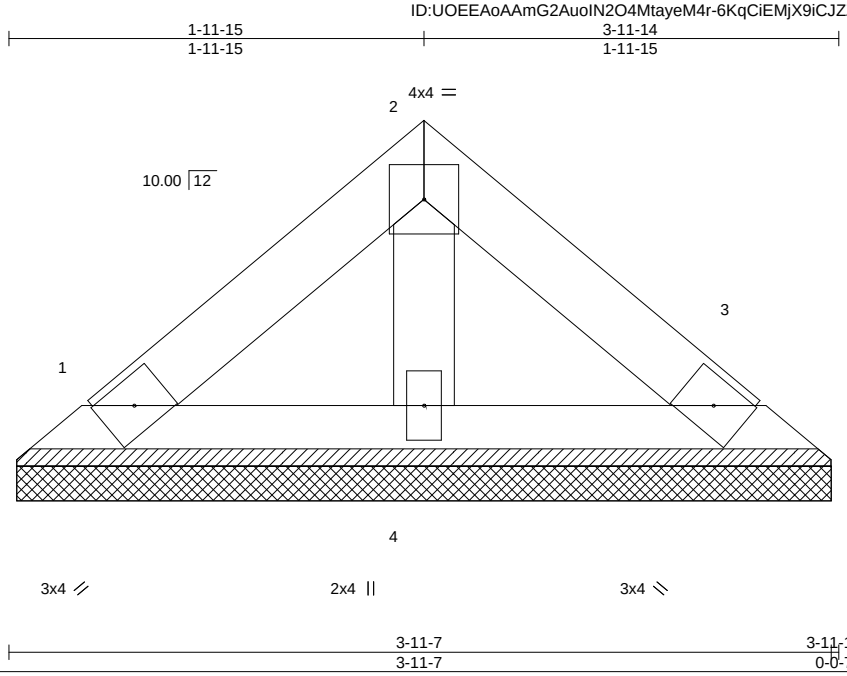
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip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

September 14,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 146 Hidden Lakes
J0822-4268	V6	VALLEY	1	1	I54207108
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Sep 14 14:14:51 2022 Page 1
ID:UOEEAoAAmG2AuoIN2O4MtayeM4r-6KqCiEMjX9iCJZZpNtxBqAyb9ZqI6CQCfAERZKydhbI



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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 14 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 3-11-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-11-0, 3=3-11-0, 4=3-11-0
Max Horz 1=32(LC 9)
Max Uplift 1=-11(LC 13), 3=-14(LC 13)
Max Grav 1=74(LC 1), 3=74(LC 1), 4=107(LC 1)

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

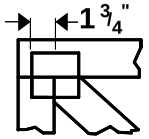
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip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

September 14,2022

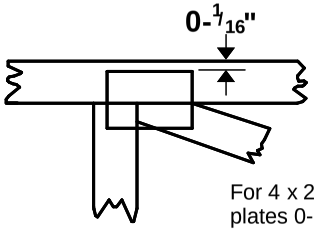
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

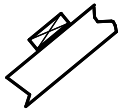
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

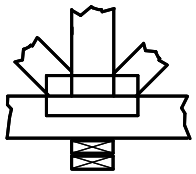
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

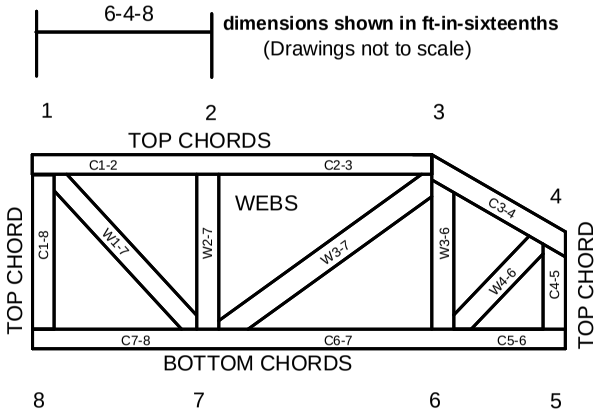


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.