

RE: 250837-A
78 Ducks Landing

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Caviness & Cates Building & Development Project Name: 250837-A
Lot/Block: Model:
Address: 416 Black Duck Lane Subdivision: Ducks Landing
City: Lillington State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 25.2
Wind Code: ASCE 7-16 Wind Speed: 150 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 14 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I75317399	A02GE	8/1/2025
2	I75317400	A02	8/1/2025
3	I75317401	A02A	8/1/2025
4	I75317402	A01A	8/1/2025
5	I75317403	A01	8/1/2025
6	I75317404	A01GE	8/1/2025
7	I75317405	B02GRD	8/1/2025
8	I75317406	B01GE	8/1/2025
9	I75317407	VB01	8/1/2025
10	I75317408	VB02	8/1/2025
11	I75317409	VB03	8/1/2025
12	I75317410	VB04	8/1/2025
13	I75317411	C01GE	8/1/2025
14	I75317412	C01	8/1/2025

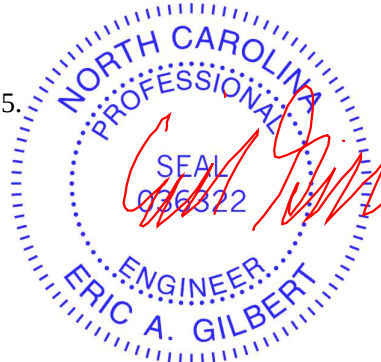
The truss drawing(s) referenced above have been prepared by
Truss Engineering Co. under my direct supervision
based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844

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



Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing
250837-A	A02GE	GABLE	1	1	175317399

Comtech, Inc., Fayetteville, NC - 28314,

25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 11:33:31 2025 Page 1

ID:vWFTz60CRi_Y9uBpUWIOFz0O6Y-wJVj3Pe7f7rKjE1w3Z1inFrou4EW6XZpW?X6_nysZAY

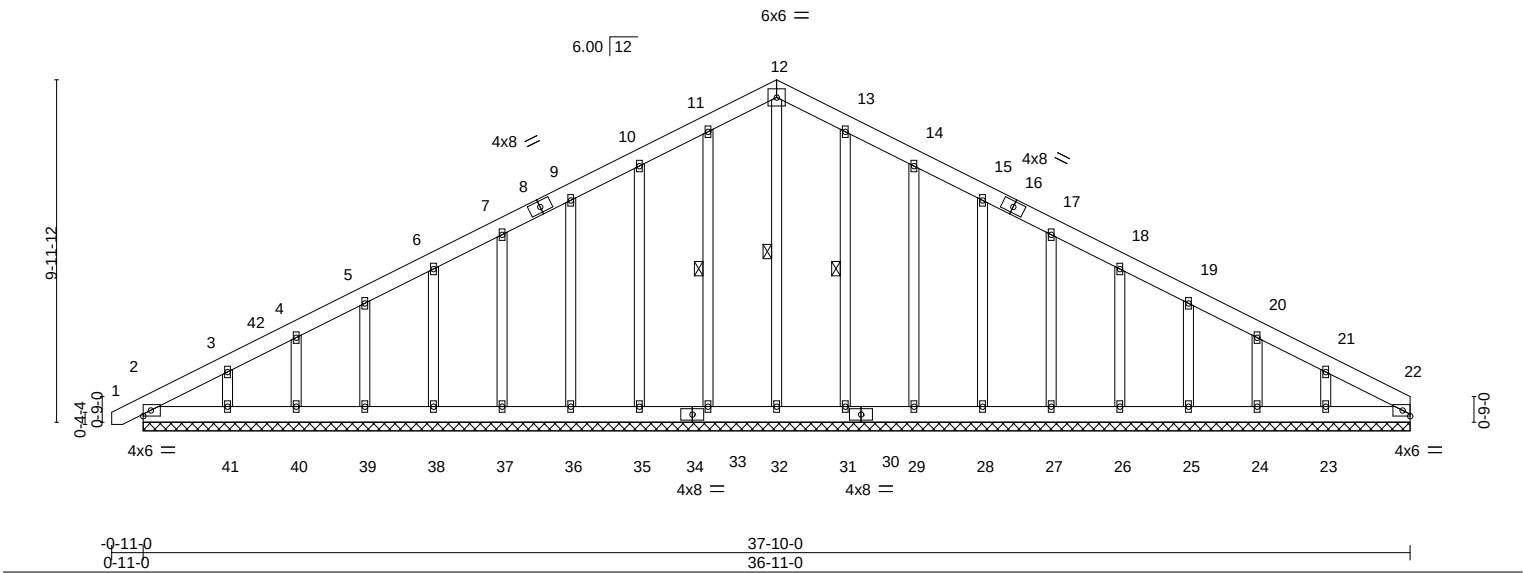
Job Reference (optional)

-0-11-0
0-11-0

19-4-8
18-5-8

37-10-0
18-5-8

Scale = 1:67.1



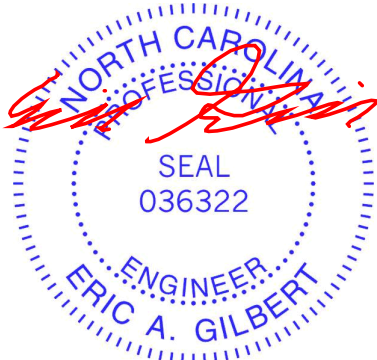
LOADING (psf)	SPACING-	CSI.	DEFL.	VERT(LL)	VERT(CT)	HORZ(CT)	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	in (loc)	-0.00	0.00	0.01	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	l/defl	1 n/r	1 n/r	22 n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.11	L/d	120	120	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 308 lb	FT = 25%
	Code IRC2021/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS 1 Row at midpt

REACTIONS. All bearings 36-11-0.
(lb) - Max Horz 2=262(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 33, 31, 24 except 35=-119(LC 12), 36=-108(LC 12), 37=-107(LC 12), 38=-108(LC 12), 39=-109(LC 12), 40=-101(LC 12), 41=-168(LC 12), 29=-123(LC 13), 28=-108(LC 13), 27=-107(LC 13), 26=-108(LC 13), 25=-109(LC 13), 23=-167(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 22, 32, 33, 35, 36, 37, 38, 39, 40, 41, 31, 29, 28, 27, 26, 25, 24, 23

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-350/115, 7-9=-88/252, 9-10=-115/318, 10-11=-145/402, 11-12=-164/456, 12-13=-164/456, 13-14=-145/402, 14-15=-115/318, 21-22=-252/81
BOT CHORD 2-41=-72/276, 40-41=-72/276, 39-40=-72/276, 38-39=-72/276, 37-38=-72/276, 36-37=-72/276, 35-36=-72/276, 33-35=-72/276, 32-33=-72/276, 31-32=-72/276, 29-31=-72/276, 28-29=-72/276, 27-28=-72/276, 26-27=-72/276, 25-26=-72/276, 24-25=-72/276, 23-24=-72/276, 22-23=-72/276
WEBS 3-41=-140/283, 21-23=-149/307

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-9-2 to 3-7-11, Exterior(2N) 3-7-11 to 18-5-8, Corner(3R) 18-5-8 to 22-10-5, Exterior(2N) 22-10-5 to 36-11-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 33, 31, 24 except (jt=lb) 35=119, 36=108, 37=107, 38=108, 39=109, 40=101, 41=168, 29=123, 28=108, 27=107, 26=108, 25=109, 23=167.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 1,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing	175317400
250837-A	A02	COMMON	4	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 11:33:29 2025 Page 1
ID:vWFTz60CRi_Y9uBpUWIOFxz0O6Y-zwNzejds7WbcUwtXy8_EiqmP4GNOeVYW3h2?wuysZAa
0-11-0 9-5-6 18-5-8 27-5-10 36-11-0
0-11-0 9-5-6 9-0-2 9-0-2 9-5-6

Scale = 1:67.1

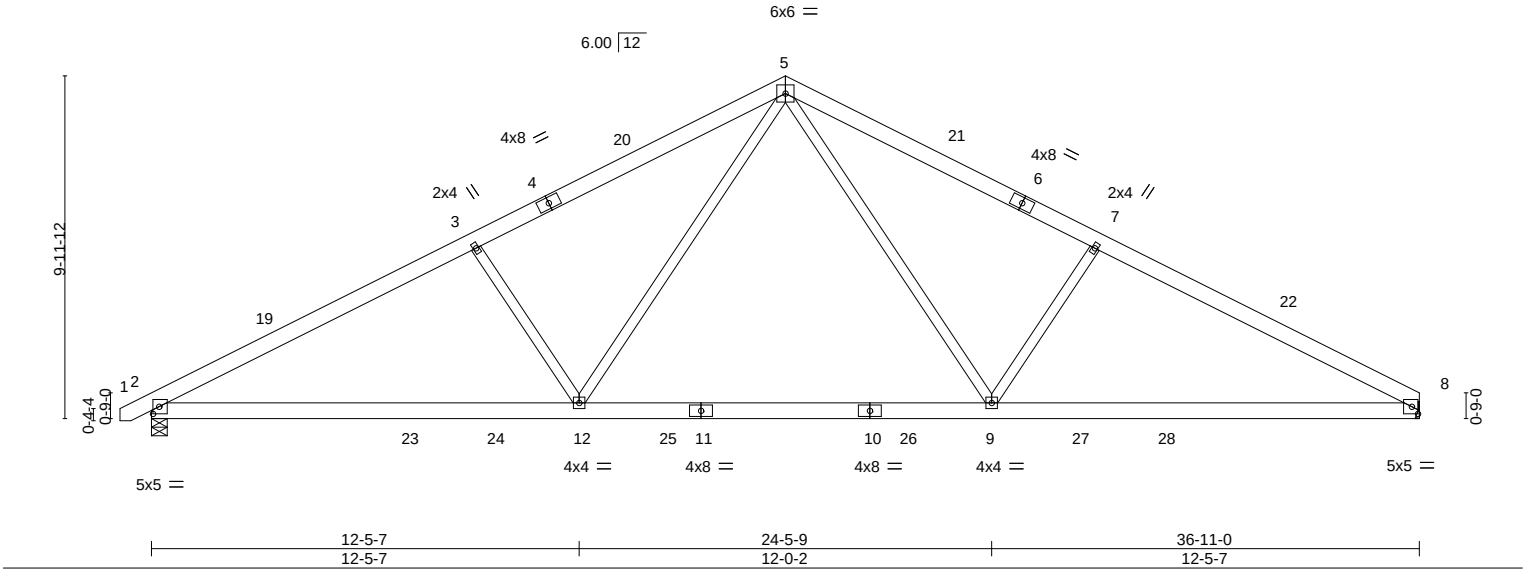


Plate Offsets (X,Y)--		[2:0-2-2,0-2-8], [8:0-2-2,0-2-8]		12-5-7 12-5-7		24-5-9 12-0-2		36-11-0 12-5-7	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.30 9-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.43 9-12	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.60	Horz(CT)	0.07 8	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-AS	Wind(LL)	0.08 12	>999	240	Weight: 234 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	

REACTIONS. (size) 2=0-5-8, 8=Mechanical
Max Horz 2=168(LC 9)
Max Uplift 2=-282(LC 12), 8=-265(LC 13)
Max Grav 2=1787(LC 2), 8=1749(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2996/953, 3-5=-2754/960, 5-7=-2756/969, 7-8=-2998/963
BOT CHORD 2-12=-725/2655, 9-12=-343/1770, 8-9=-706/2600
WEBS 5-9=-271/1187, 7-9=-540/444, 5-12=-269/1185, 3-12=-538/444

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 18-5-8, Exterior(2R) 18-5-8 to 22-10-5, Interior(1) 22-10-5 to 36-11-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=282, 8=265.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 1,2025

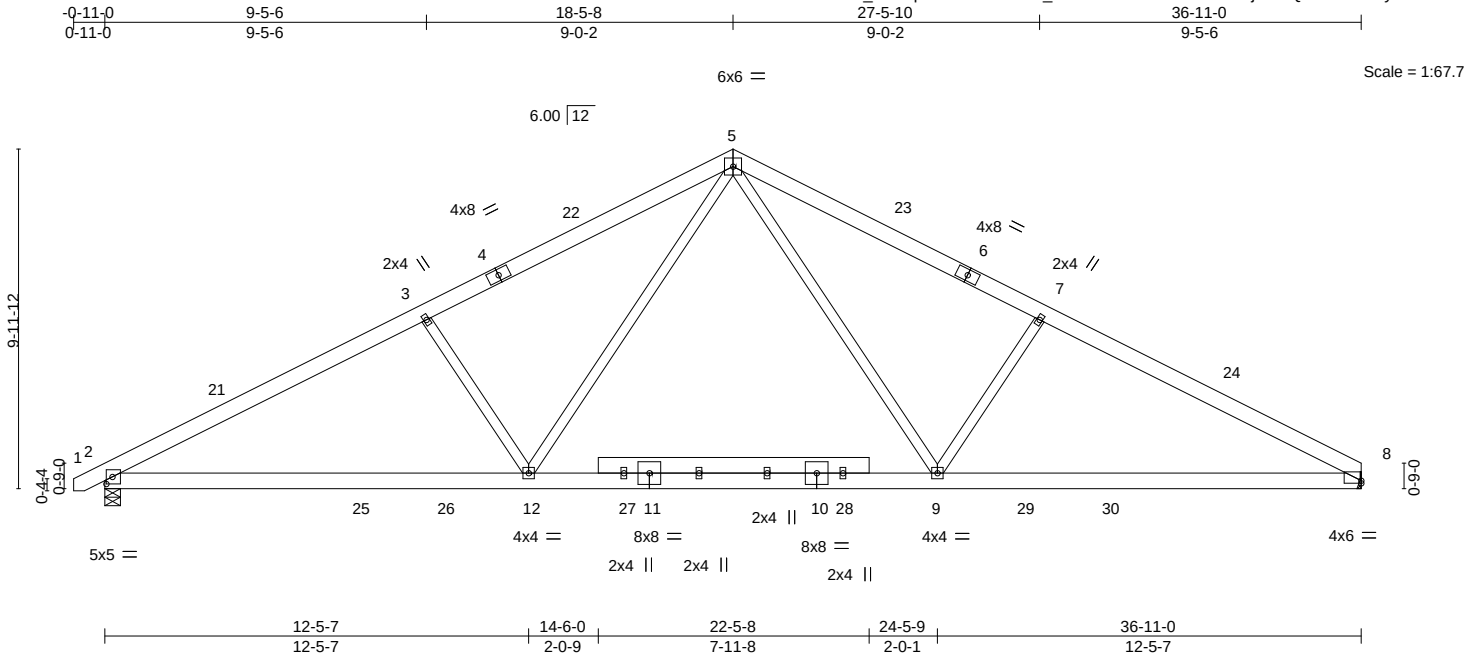
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing	175317401
250837-A	A02A	COMMON	3	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

25.2.0 s May 29 2025 MiTek Industries, Inc. Fri Aug 1 15:18:32 2025 Page 1
ID:vWFTz60CRi_Y9uBpUWIOFxz0O6Y-_MsX6fueVGJxGzEduJvr1LjYlb1QIVziu38zboysLKb



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)	-0.28 9-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.41 9-12	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.60	Horz(CT)	0.07 8	n/a	n/a		
BCDL 10.0	Code IRC2021/TP12014		Matrix-AS	Wind(LL)	0.08 12	>999	240	Weight: 253 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except*	
13-14: 2x6 SP No.1	

REACTIONS. (size) 2=0-5-8 (min. 0-2-2), 8=Mechanical
Max Horz 2=168(LC 9)
Max Uplift 2=-282(LC 12), 8=-265(LC 13)
Max Grav 2=1778(LC 2), 8=1739(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-21=-2975/923, 3-21=-2884/953, 3-4=-2733/916, 4-22=-2627/936, 5-22=-2627/960,
5-23=-2628/969, 6-23=-2628/945, 6-7=-2734/925, 7-24=-2886/963, 8-24=-2977/936
BOT CHORD 2-25=-725/2637, 25-26=-725/2637, 12-26=-725/2637, 12-27=-343/1757, 11-27=-343/1757,
10-11=-343/1757, 10-28=-343/1757, 9-28=-343/1757, 9-29=-706/2581, 29-30=-706/2581,
8-30=-706/2581
WEBS 5-9=-271/1177, 7-9=-540/444, 5-12=-269/1174, 3-12=-538/444

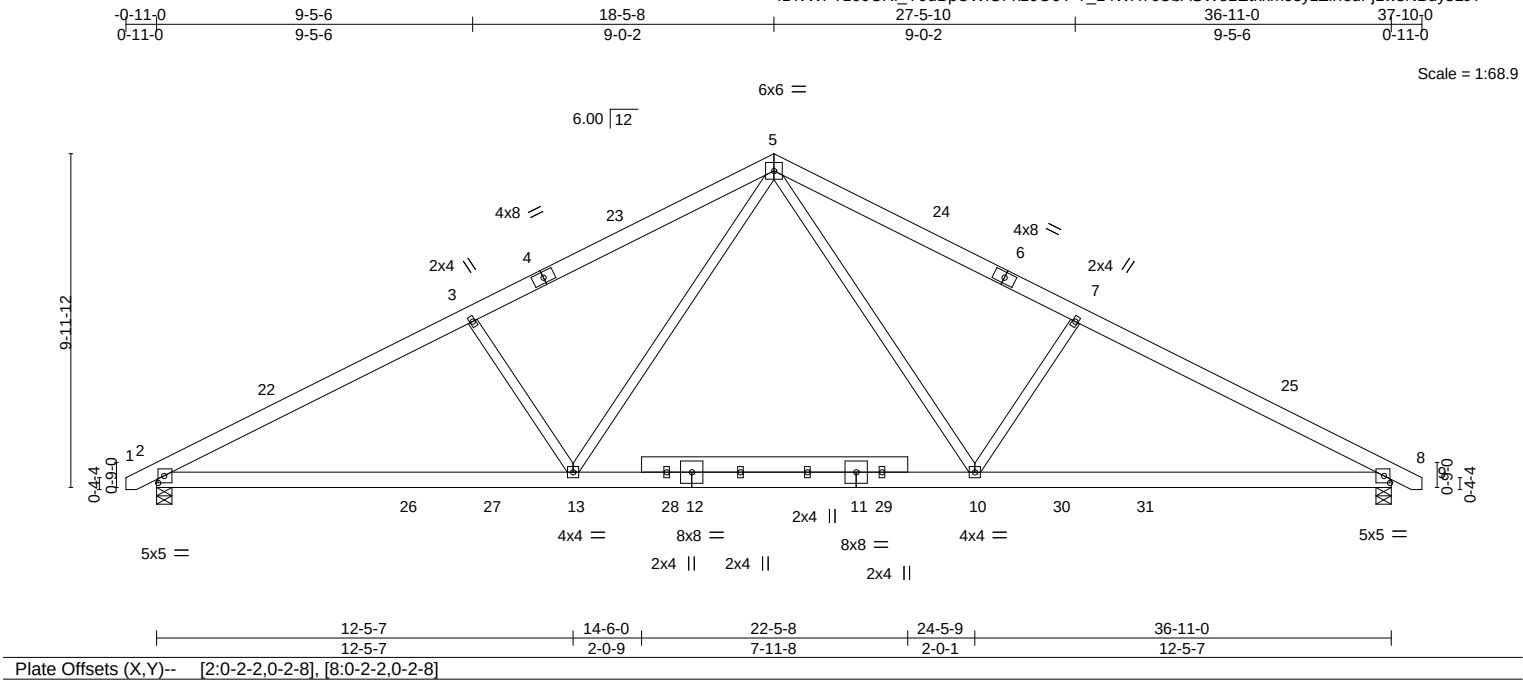
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 18-5-8, Exterior(2R) 18-5-8 to 22-10-5, Interior(1) 22-10-5 to 36-11-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 282 lb uplift at joint 2 and 265 lb uplift at joint 8.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 1,2025

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing	I75317402
250837-A	A01A	COMMON	3	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314, ID: vWFTz60CRi_Y9uBpUWIOFxz0O6Y-?_14WX7cUbASWe1Etckm9syZirledFjLwsNBuysLJ? 25.2.0 s May 29 2025 MiTek Industries, Inc. Fri Aug 1 15:20:14 2025 Page 1



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)	-0.28 10-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.41 10-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.59	Horz(CT)	0.07 8	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-AS	Wind(LL)	0.08 13	>999	240	Weight: 255 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except*	
14-15: 2x6 SP No.1	

REACTIONS.	(size) 2=0-5-8 (min. 0-2-2), 8=0-5-8 (min. 0-2-2)
	Max Horz 2=-167(LC 10)
	Max Uplift 2=-282(LC 12), 8=-282(LC 13)
	Max Grav 2=1778(LC 2), 8=1778(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-22=-2975/923, 3-22=-2883/953, 3-4=-2732/915, 4-23=-2626/936, 5-23=-2626/960, 5-24=-2626/960, 6-24=-2626/936, 6-7=-2732/915, 7-25=-2883/953, 8-25=-2975/923
BOT CHORD	2-26=-688/2643, 26-27=-688/2643, 13-27=-688/2643, 13-28=-306/1763, 12-28=-306/1763, 11-12=-306/1763, 11-29=-306/1763, 10-29=-306/1763, 10-30=-685/2579, 30-31=-685/2579, 8-31=-685/2579
WEBS	5-10=-270/1175, 7-10=-538/444, 5-13=-270/1174, 3-13=-538/444

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 18-5-8, Exterior(2R) 18-5-8 to 22-10-5, Interior(1) 22-10-5 to 37-8-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 282 lb uplift at joint 2 and 282 lb uplift at joint 8.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 1,2025

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing
250837-A	A01	COMMON	3	1	

I75317403

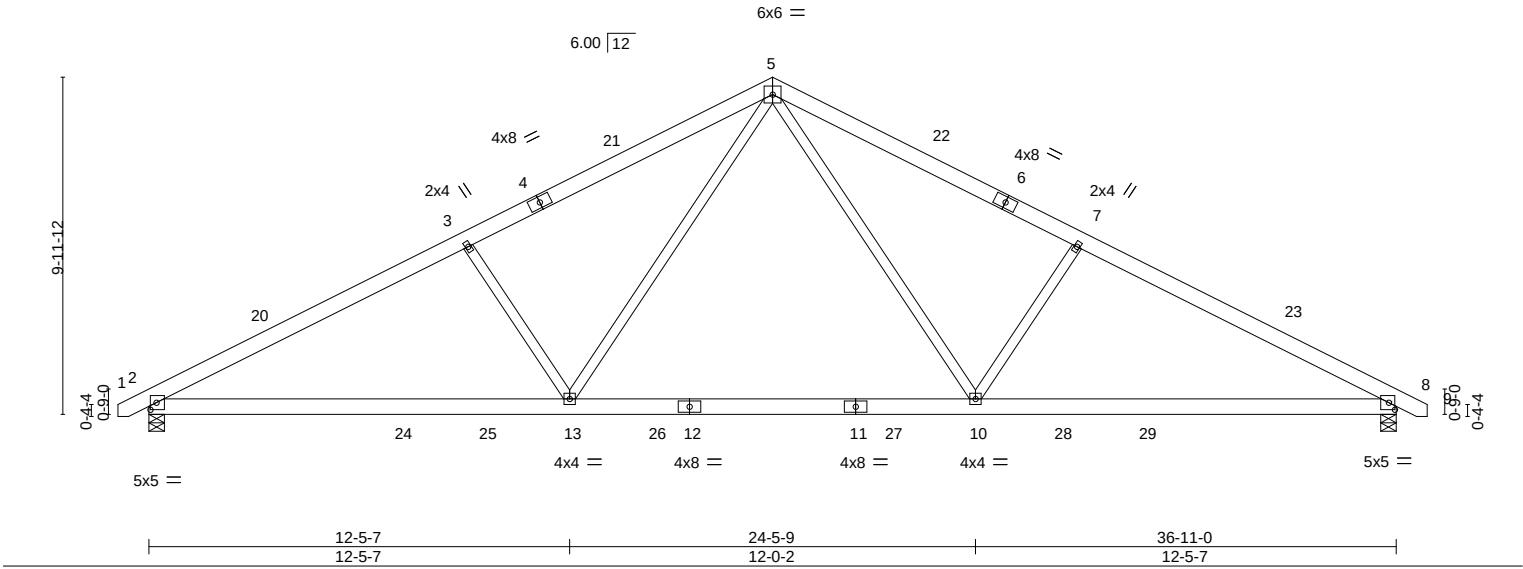
Comtech, Inc., Fayetteville, NC - 28314,

25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 11:33:27 2025 Page 1

ID:vWFTz60CRi_Y9uBpUWIOFz0O6Y-1XGDD1bcbuLuEdj8qjymdPg3bTixAc4EbNZvr0ysZAc

-0-11-0 9-5-6 18-5-8 27-5-10 36-11-0 37-10-0
0-11-0 9-5-6 9-0-2 9-0-2 9-5-6 0-11-0

Scale = 1:68.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.30 10-13 >999 360	MT20		244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.43 10-13 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.07 8 n/a n/a				
BCDL	10.0	Code IRC2021/TPI2014		Matrix-AS		Wind(LL)	0.08 13 >999 240				
								Weight: 237 lb		FT = 25%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SP No.2		

REACTIONS.	
(size)	2=0-5-8, 8=0-5-8
Max Horz	2=-167(LC 10)
Max Uplift	2=-282(LC 12), 8=-282(LC 13)
Max Grav	2=1787(LC 2), 8=1787(LC 2)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-2996/953, 3-5=-2753/960, 5-7=-2753/960, 7-8=-2996/953
BOT CHORD	2-13=-688/2661, 10-13=-306/1776, 8-10=-685/2597
WEBS	5-10=-270/1185, 7-10=-538/444, 5-13=-270/1185, 3-13=-538/444

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 18-5-8, Exterior(2R) 18-5-8 to 22-10-5, Interior(1) 22-10-5 to 37-8-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=282, 8=282.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 1,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing
250837-A	A01GE	GABLE	1	1	175317404

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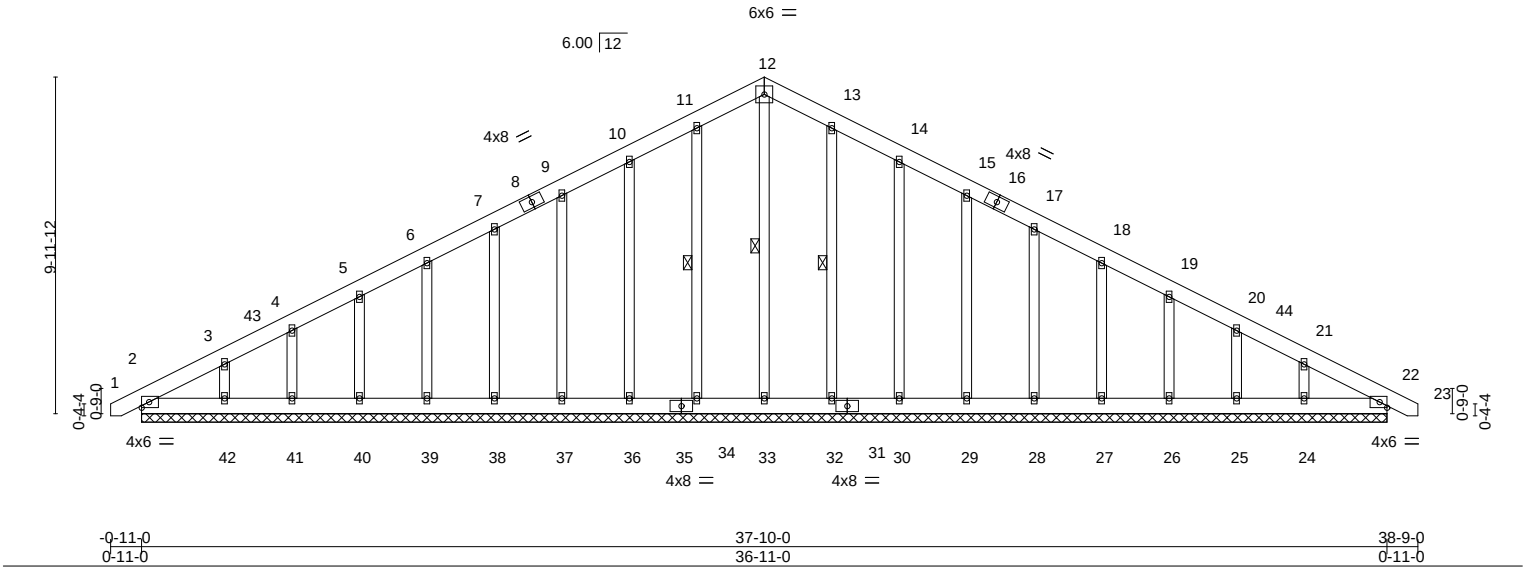
25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 11:33:29 2025 Page 1

ID:vWFTz60CRI_Y9uBpUWIOFz0O6Y-zwNzejds7WbcUwtXy8_EiqmSPGY4ed3W3h2?wuysZAa

Job Reference (optional)

-Q-11-0 19-4-8 37-10-0 38-9-0
0-11-0 18-5-8 37-10-0 38-9-0
0-11-0 18-5-8 0-11-0

Scale = 1:68.3



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) 0.00 22 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.11	Vert(CT) 0.00 22 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 22 n/a n/a		
	Code IRC2021/TPI2014			Weight: 311 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS 1 Row at midpt 12-33, 11-34, 13-32

REACTIONS. All bearings 36-11-0.
(lb) - Max Horz 2=259(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 34, 32 except 36=-120(LC 12), 37=-108(LC 12), 38=-107(LC 12), 39=-108(LC 12), 40=-109(LC 12), 41=-101(LC 12), 42=-168(LC 12), 30=-123(LC 13), 29=-108(LC 13), 28=-107(LC 13), 27=-108(LC 13), 26=-109(LC 13), 25=-101(LC 13), 24=-159(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 22, 33, 34, 36, 37, 38, 39, 40, 41, 42, 32, 30, 29, 28, 27, 26, 25, 24

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-348/117, 7-9=-89/254, 9-10=-116/318, 10-11=-145/402, 11-12=-164/455, 12-13=-164/455, 13-14=-145/402, 14-15=-116/318
BOT CHORD 2-42=-74/278, 41-42=-74/278, 40-41=-74/278, 39-40=-74/278, 38-39=-74/278, 37-38=-74/278, 36-37=-74/278, 34-36=-74/278, 33-34=-74/278, 32-33=-74/278, 30-32=-74/278, 29-30=-74/278, 28-29=-74/278, 27-28=-74/278, 26-27=-74/278, 25-26=-74/278, 24-25=-74/278, 22-24=-74/278
WEBS 3-42=-140/283, 21-24=-140/280

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-9-2 to 3-7-11, Exterior(2N) 3-7-11 to 18-5-8, Corner(3R) 18-5-8 to 22-10-5, Exterior(2N) 22-10-5 to 37-8-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 34, 32 except (jt=lb) 36=120, 37=108, 38=107, 39=108, 40=109, 41=101, 42=168, 30=123, 29=108, 28=107, 27=108, 26=109, 25=101, 24=159.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 1,2025

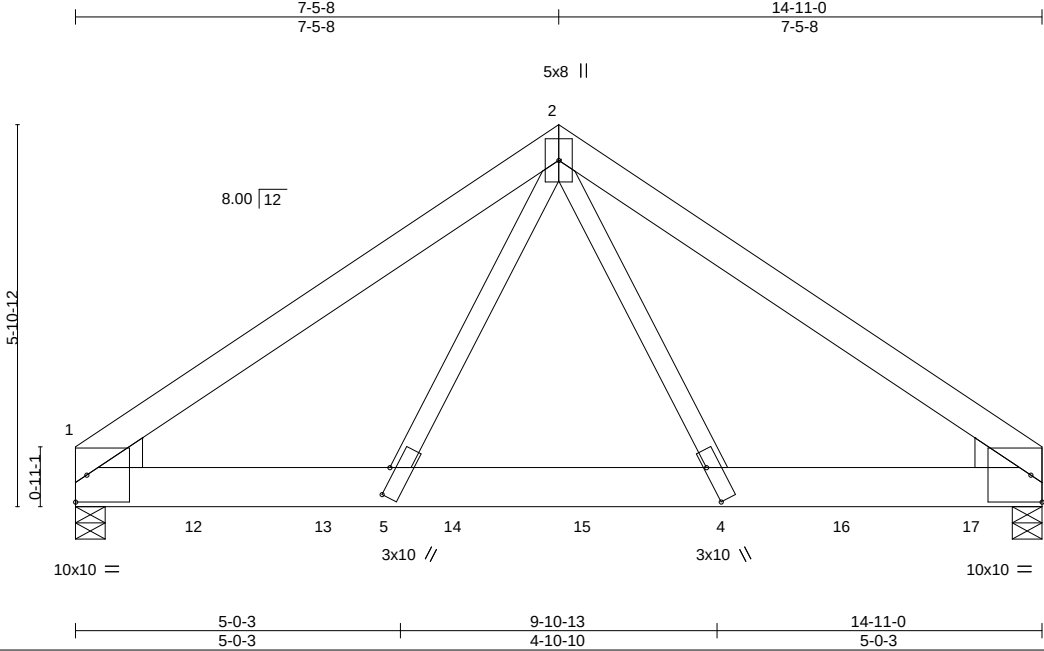
Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing
250837-A	B02GRD	COMMON GIRDER	1	2	Job Reference (optional)

I75317405

Comtech, Inc., Fayetteville, NC - 28314,

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ID:VWFTz60CRi_Y9uBpUWIOFxz0O6Y-OV35GlfQRzBLOc6dGYxKTOvSUPHrsFzlfGfXDysZAX



Scale = 1:35.6

Plate Offsets (X,Y)--		[4:0-6-14,0-0-8], [5:0-5-2,0-1-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.27
TCDL 10.0	Lumber DOL	1.15	BC 0.70
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.60
BCDL 10.0	Code	IRC2021/TP12014	Matrix-MS
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	-0.08	4-5	>999
Vert(CT)	-0.14	4-5	>999
Horz(CT)	0.03	3	n/a
Wind(LL)	0.06	4-5	>999
PLATES	GRIP		
MT20	244/190		
Weight: 217 lb	FT = 25%		

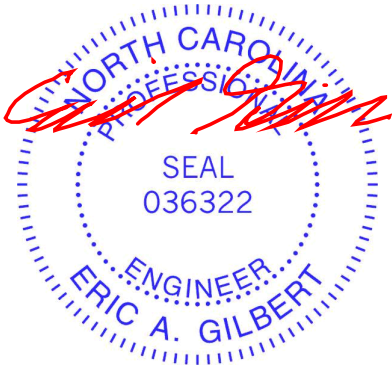
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins.
BOT CHORD 2x8 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
WEDGE	
Left: 2x6 SP No.2 , Right: 2x6 SP No.2	

REACTIONS.	(size) 1=0-5-8, 3=0-5-8
Max Horz	1=159(LC 28)
Max Uplift	1=1013(LC 8), 3=1124(LC 9)
Max Grav	1=6222(LC 2), 3=6895(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-8079/1326, 2-3=-8159/1340
BOT CHORD	1-5=-1041/6629, 4-5=-717/4569, 3-4=-1025/6699
WEBS	2-4=-771/4875, 2-5=-741/4716

- NOTES-**
- 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: 2x8 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 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.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1013, 3=1124.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1729 lb down and 285 lb up at 1-10-4, 1729 lb down and 285 lb up at 3-10-4, 1729 lb down and 285 lb up at 5-10-4, 1729 lb down and 285 lb up at 7-10-4, 1719 lb down and 285 lb up at 9-10-4, and 1719 lb down and 285 lb up at 11-10-4, and 1719 lb down and 285 lb up at 13-10-4 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



August 1,2025

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing	I75317405
250837-A	B02GRD	COMMON GIRDER	1	2	Job Reference (optional)	

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25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 11:33:32 2025 Page 2
ID:vWFTz60CRi_Y9uBpUWIOFxz0O6Y-OV35GlfQRzBLOc6dGYxKTOvSUPHrsFzlfGfXDysZAX

LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 6-9=-20
Concentrated Loads (lb)
Vert: 4=-1456(B) 12=-1456(B) 13=-1456(B) 14=-1456(B) 15=-1456(B) 16=-1456(B) 17=-1456(B)

Eric A. Gilbert



August 1, 2025

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**
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ENGINEERING BY

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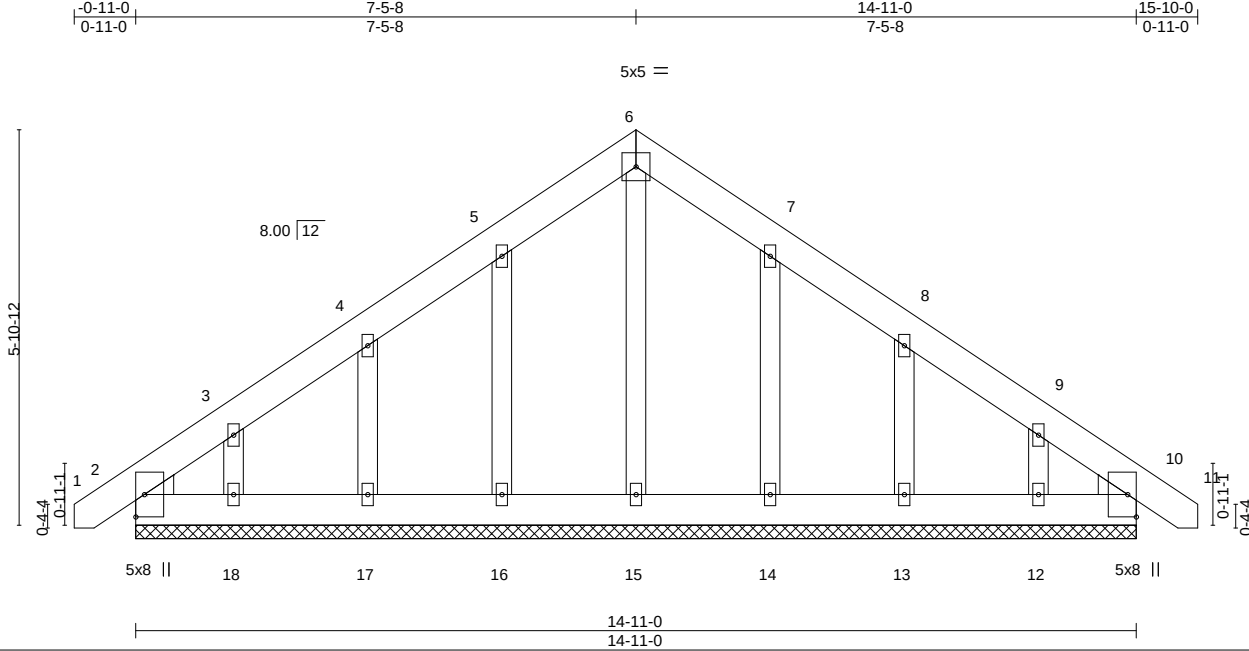
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing
250837-A	B01GE	GABLE	1	1	175317406

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25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 11:33:31 2025 Page 1

ID:vWFTz60CRi_Y9uBpUWIOFxz0O6Y-wJVj3Pe7f7rKJE1w3Z1inFrpU4En6YYpW?X6_nysZAY



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	10	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	10	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	10	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S						Weight: 112 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	
WEDGE	
Left: 2x4 SP No.2 , Right: 2x4 SP No.2	

REACTIONS. All bearings 14-11-0.
(lb) - Max Horz 2=219(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10 except 16=122(LC 12), 17=142(LC 12), 18=165(LC 12),
14=117(LC 13), 13=144(LC 13), 12=155(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 18, 14, 13, 12

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-9-4 to 3-5-8, Interior(1) 3-5-8 to 7-5-8, Exterior(2R) 7-5-8 to 11-10-5, Interior(1) 11-10-5 to 15-8-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10 except (jt=lb) 16=122, 17=142, 18=165, 14=117, 13=144, 12=155.



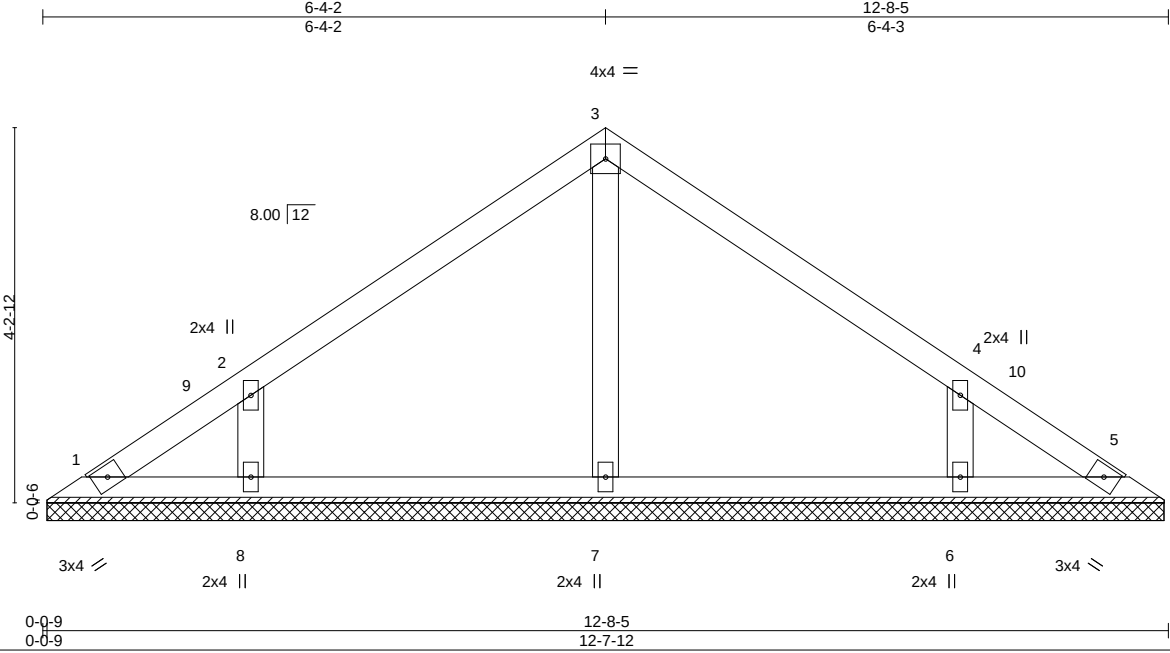
August 1,2025

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing
250837-A	VB01	VALLEY	1	1	175317407

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25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 11:33:34 2025 Page 1

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Scale = 1:26.0

Plate Offsets (X,Y)--		[4:0-0-0,0-0-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.13
TCDL 10.0	Lumber DOL	1.15	BC 0.09
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06
BCDL 10.0	Code	IRC2021/TPI2014	Matrix-S
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	n/a	-	n/a
Vert(CT)	n/a	-	n/a
Horz(CT)	0.00	5	n/a
PLATES	GRIP		
MT20	244/190		
Weight: 48 lb	FT = 25%		

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	

REACTIONS. All bearings 12-7-3.
(lb) - Max Horz 1=-125(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-152(LC 12), 6=-152(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=264(LC 1), 8=337(LC 19), 6=336(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-287/314, 4-6=-286/314

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 6-4-2, Exterior(2R) 6-4-2 to 10-8-15, Interior(1) 10-8-15 to 12-2-6 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, 5 except (jt=lb) 8=152, 6=152.



August 1,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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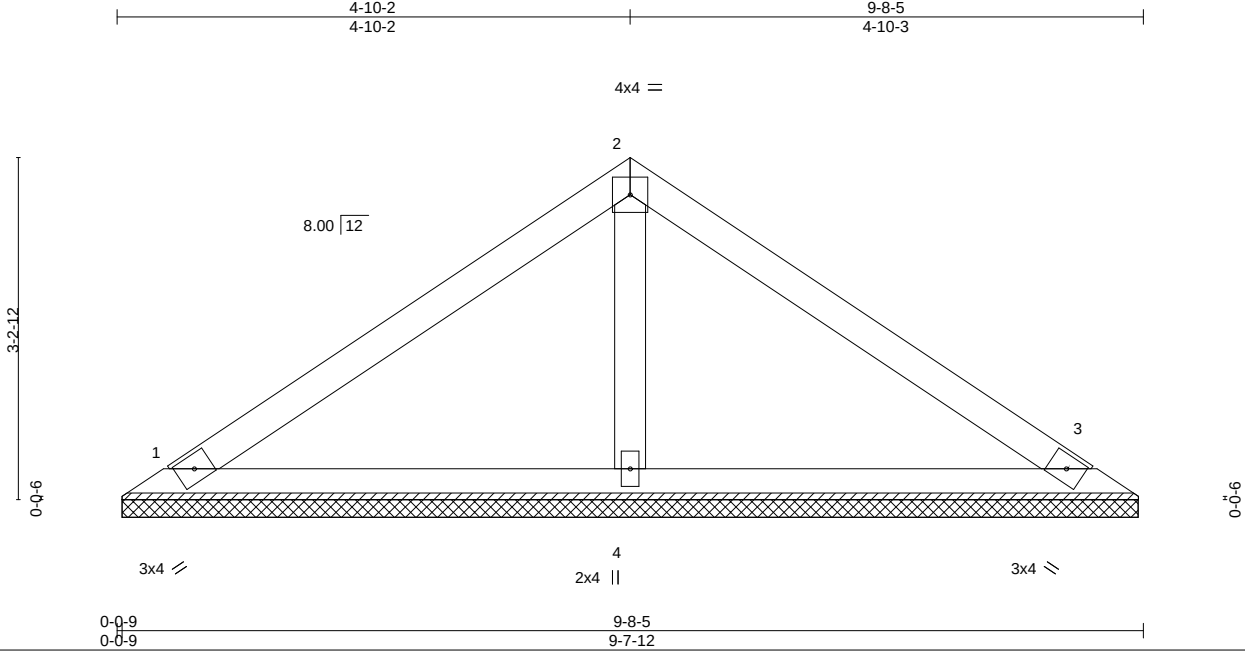
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing
250837-A	VB02	VALLEY	1	1	175317408

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25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 11:33:34 2025 Page 1

ID:vWFTz60CRi_Y9uBpUWIOFxz0O6Y-KuBshQh?y2DvahmVkhPPuTG?HEaJvUFCzImb6ysZAV



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.14	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2021/TPI2014			Weight: 34 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	

REACTIONS. (size) 1=9-7-3, 3=9-7-3, 4=9-7-3
Max Horz 1=93(LC 9)
Max Uplift 1=-45(LC 12), 3=-54(LC 13), 4=-29(LC 12)
Max Grav 1=173(LC 1), 3=177(LC 20), 4=351(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



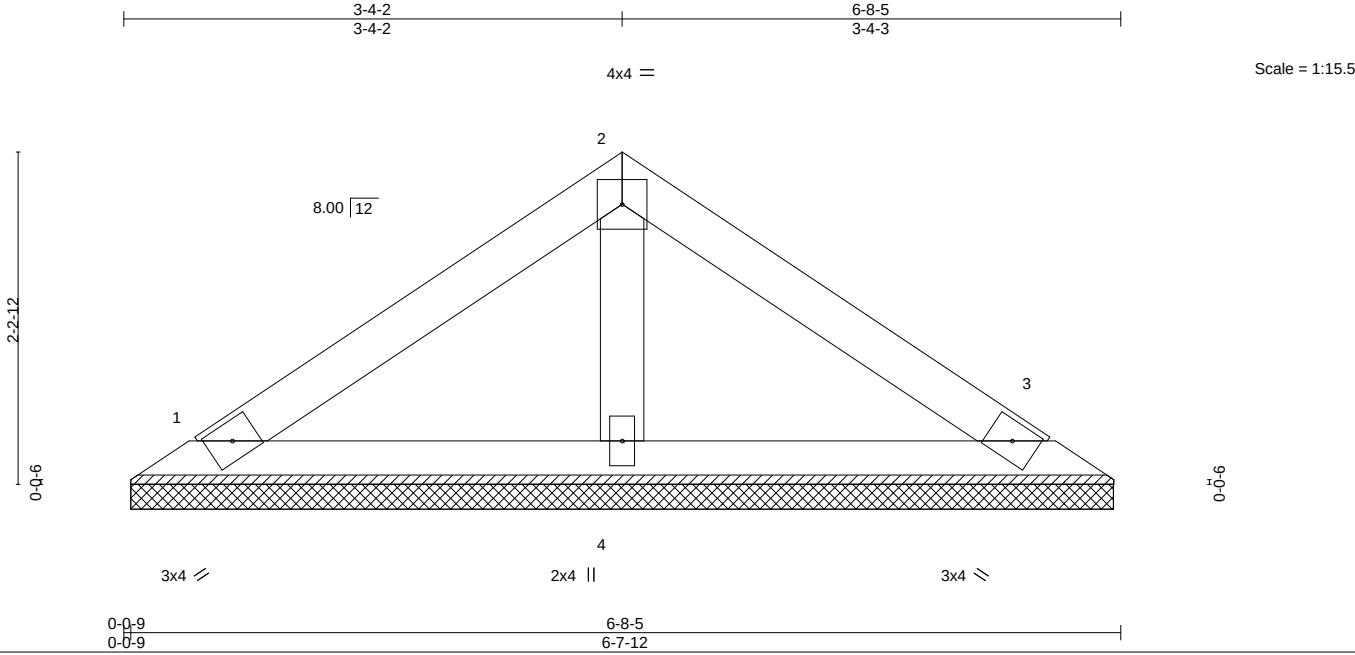
August 1,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing
250837-A	VB03	VALLEY	1	1	175317409

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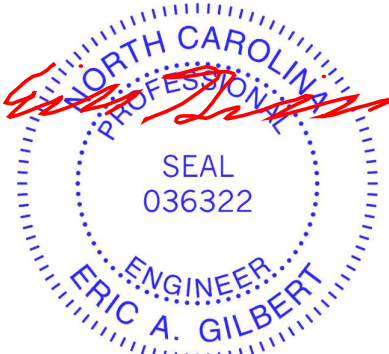
LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P						Weight: 22 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	

REACTIONS.	(size)	1=6-7-3, 3=6-7-3, 4=6-7-3
	Max Horz	1=-61(LC 10)
	Max Uplift	1=-37(LC 12), 3=-43(LC 13), 4=-3(LC 12)
	Max Grav	1=124(LC 1), 3=126(LC 20), 4=208(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 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 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, 4.



August 1,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

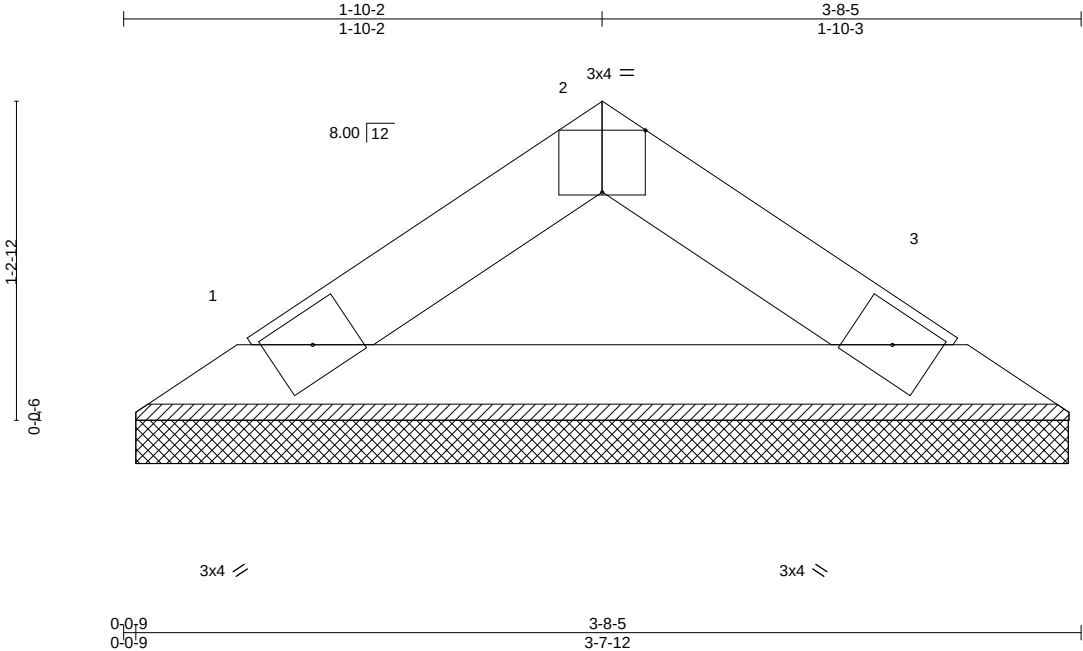
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing
250837-A	VB04	VALLEY	1	1	175317410

Comtech, Inc., Fayetteville, NC - 28314,

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ID:vWFTz60CRi_Y9uBpUWIOFxz0O6Y-o4kEvmidjMLmCrLhIO5ey5?UDhb?2MKPRdVK7YysZAU



Scale = 1:8.9

Plate Offsets (X,Y)--		[2-0-2-0,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05
TCDL 10.0	Lumber DOL	1.15	BC 0.06
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2021/TPI2014	Matrix-P
			DEFL.
			in (loc)
			l/defl
			L/d
			PLATES
			GRIP
			MT20
			244/190
			Weight: 10 lb
			FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-8-5 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-7-3, 3=3-7-3
Max Horz 1=-29(LC 8)
Max Uplift 1=-18(LC 12), 3=-18(LC 13)
Max Grav 1=108(LC 1), 3=108(LC 1)

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

- NOTES-
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



August 1,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompoments.com)

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

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing	175317411
250837-A	C01GE	MONOPITCH	2	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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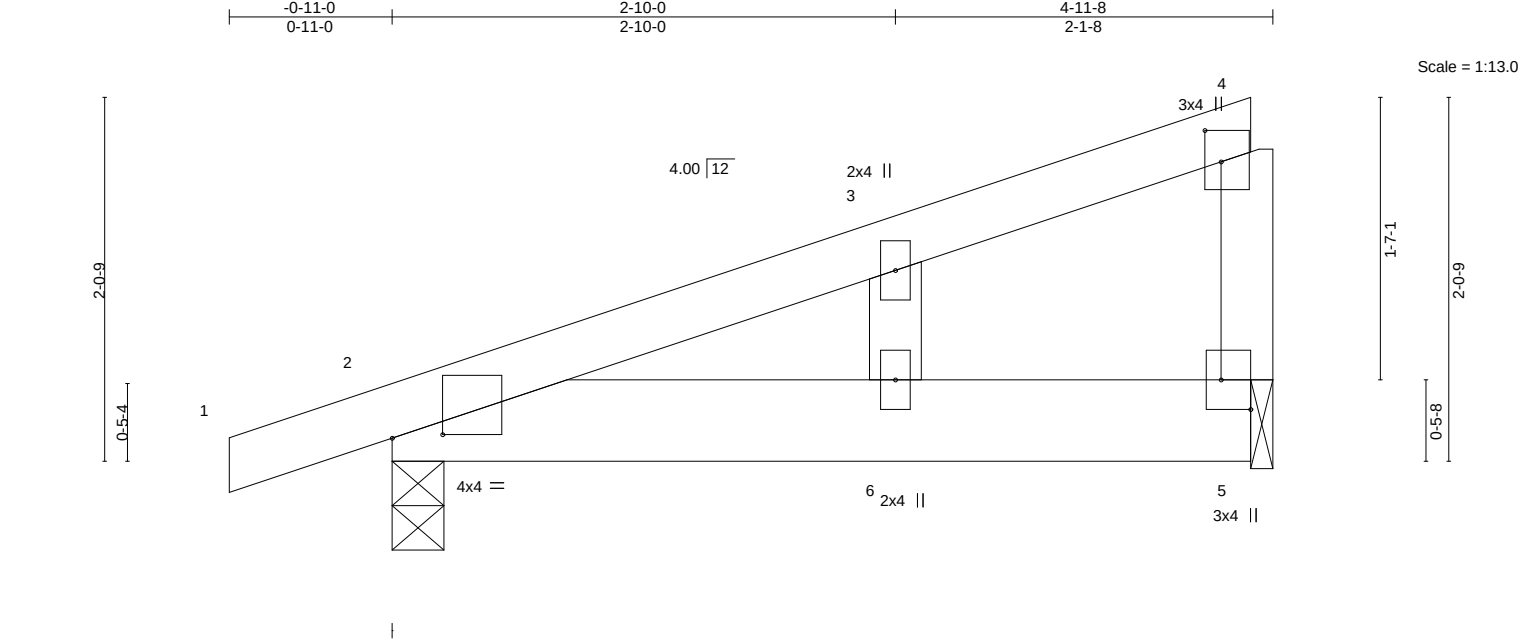


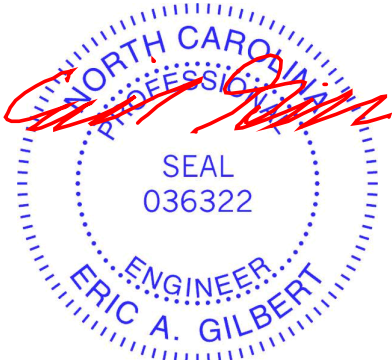
Plate Offsets (X,Y)-- [2:0-3-7,0-0-4], [4:0-2-2,0-1-2], [5:Edge,0-2-0]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	in (loc)	l/defl	L/d	GRIP
TCDL	10.0	Lumber DOL	1.15	BC	0.27	0.04	6-9	>999	240
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	-0.02	6	>999	240
BCDL	10.0	Code IRC2021/TPI2014		Matrix-AS		-0.00	2	n/a	n/a
								Weight: 23 lb	FT = 25%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SP No.2		

REACTIONS. (size) 2=0-3-8, 5=0-1-8
Max Horz 2=125(LC 8)
Max Uplift 2=-218(LC 8), 5=-175(LC 8)
Max Grav 2=253(LC 1), 5=187(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-111/282

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 3-5-13, Exterior(2N) 3-5-13 to 4-9-12 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=218, 5=175.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 1,2025

Job	Truss	Truss Type	Qty	Ply	78 Ducks Landing	175317412
250837-A	C01	MONOPITCH	7	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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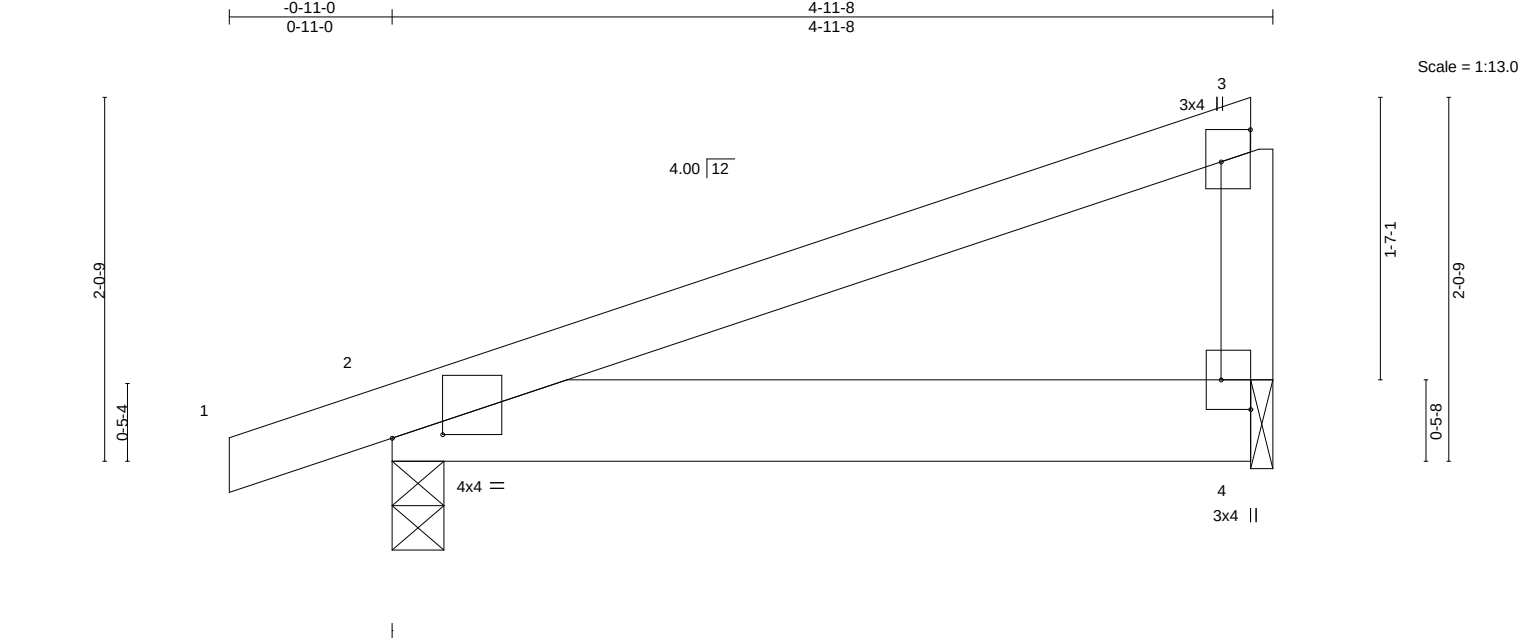


Plate Offsets (X,Y)--		[2:0-3-7,0-0-4], [3:Edge,0-2-0], [4:Edge,0-2-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.20
TCDL 10.0	Lumber DOL	1.15	BC 0.19
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2021/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.03 4-7 >999 240
			Vert(CT) -0.02 4-7 >999 240
			Horz(CT) -0.00 2 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 22 lb FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	

REACTIONS. (size) 2=0-3-8, 4=0-1-8
Max Horz 2=89(LC 8)
Max Uplift 2=-158(LC 8), 4=-126(LC 8)
Max Grav 2=253(LC 1), 4=187(LC 1)

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

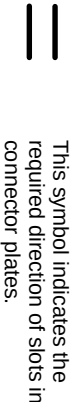
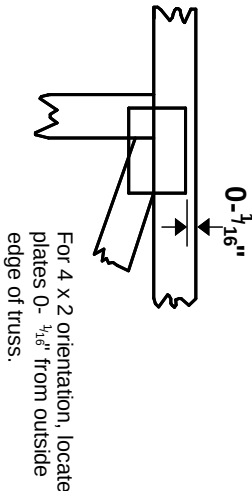
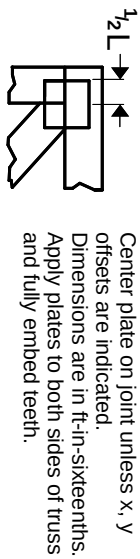
- NOTES-
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 4-9-12 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=158, 4=126.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 1,2025

Symbols

PLATE LOCATION AND ORIENTATION



* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

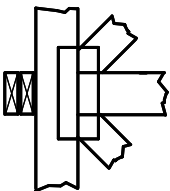
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

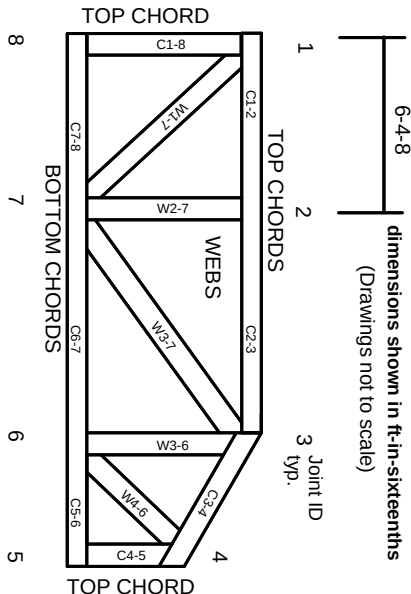


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.