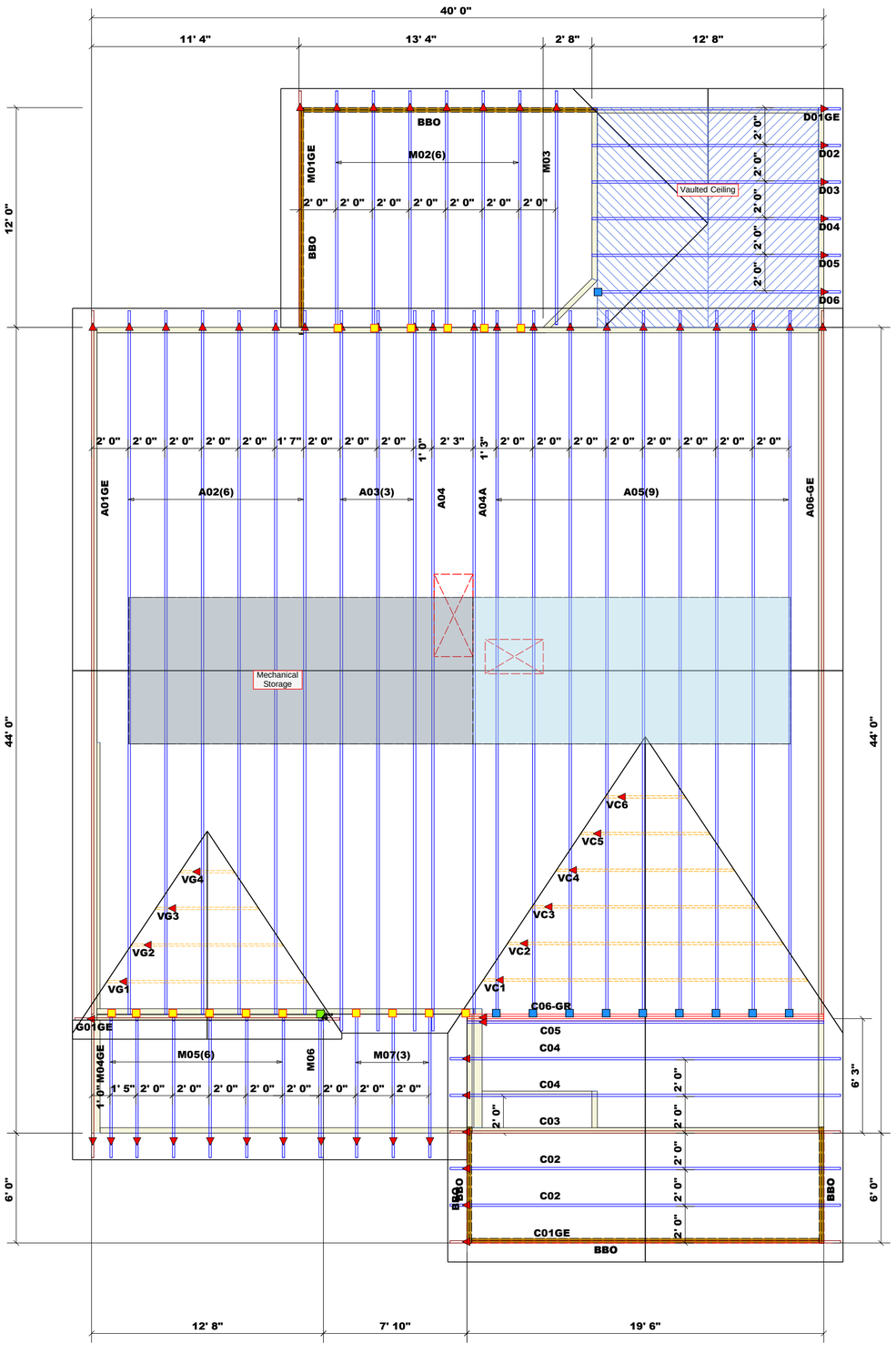


Dimension Notes
1. All exterior wall to wall dimensions are to face of wall unless noted otherwise 2. All interior wall dimensions are to face of stud unless noted otherwise 3. All exterior wall to truss dimensions are to face of stud unless noted otherwise

All Walls Shown Are Considered Load Bearing

▲ = Indicates Left End of Truss (Reference Engineered Truss Drawing) Do Not Erect Trusses Backwards

WALL SCHEDULE

- 1st Floor Walls
- 2nd Floor Walls
- Non-Bearing Walls
- Garage Walls Dropped

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
	JUS24	USP	16	NA	10d/3"	10d/3"
	HUS26	USP	10	NA	16d/3-1/2"	16d/3-1/2"
	THD26-2	USP	1	NA	16d/3-1/2"	10d/3"

Truss Placement Plan
SCALE: NTS

▲ = Indicates Left End of Truss
(Reference Engineered Truss Drawing)
Do NOT Erect Truss Backwards

COMTECH
ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature Johnnie Baggett

Johnnie Baggett

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (3P TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (4P TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (5P TO)	REQ'D STUDS FOR (4) PLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

BUILDER	New Home Inc
JOB NAME	Lot 39 Duncan's Creek
PLAN	The Apex - Georgian - Face
SEAL DATE	Seal Date
QUOTE #	Quote #
JOB #	J0525-2410
CITY / CO.	Lillington / Harnett
ADDRESS	697 Beacon Hill Road
MODEL	Roof
DATE REV.	5/2/25
DRAWN BY	Johnnie Baggett
SALES REP.	Johnnie Baggett

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.
These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0525-2410
Lot 39 Duncan's Creek

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: I73190279 thru I73190315

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

North Carolina COA: C-0844

May 5,2025

Gilbert, Eric

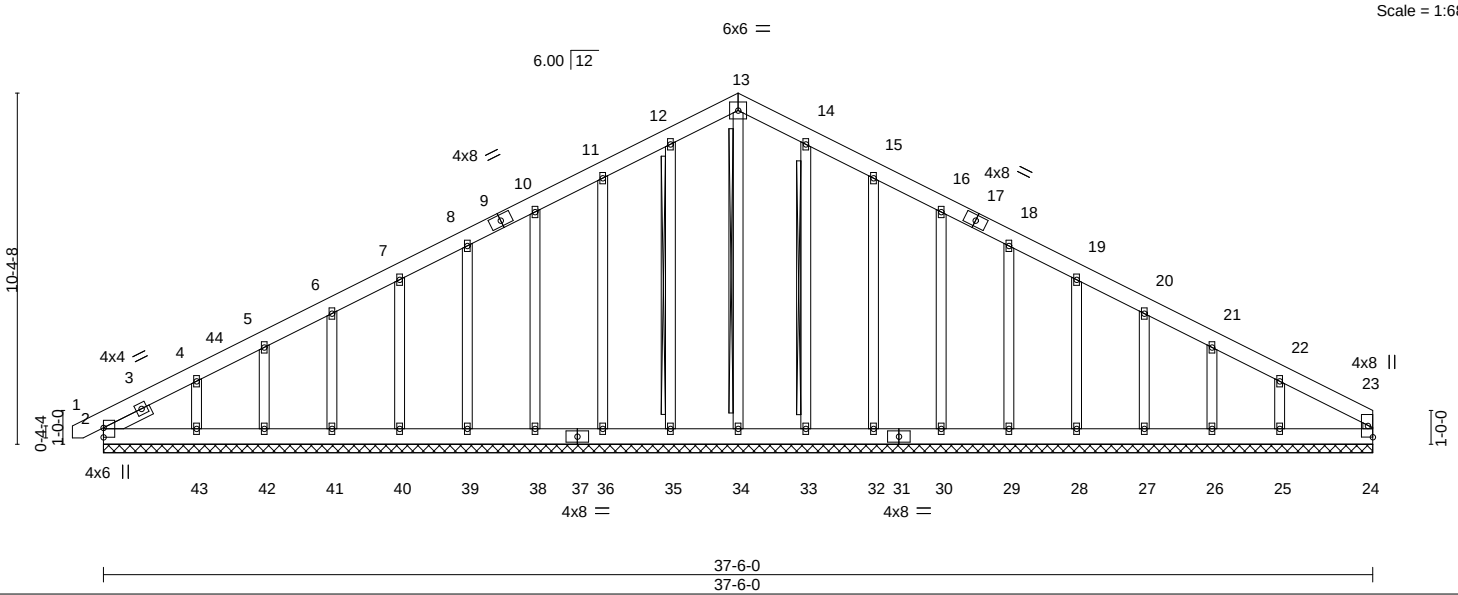
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 39 Duncan's Creek
J0525-2410	A01GE	COMMON SUPPORTED GAB	1	1	I73190279
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:15:59 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-11-0 18-9-0 37-6-0
0-11-0 18-9-0 18-9-0

Scale = 1:68.1



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	0.08	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	24	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 324 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
SLIDER	Left 2x4 SP No.2 1-6-4

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	T-Brace: 2x4 SPF No.2 - 13-34, 12-35, 14-33 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. All bearings 37-6-0.
(lb) - Max Horz 2=210(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 35, 36, 38, 39, 40, 41, 42, 33, 32, 30, 29, 28, 27, 26 except 43=-160(LC 12), 25=-148(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 24, 2, 34, 35, 36, 38, 39, 40, 41, 42, 43, 33, 32, 30, 29, 28, 27, 26, 25

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-257/111, 10-11=-109/288, 11-12=-131/352, 12-13=-145/389, 13-14=-145/389, 14-15=-131/352, 15-16=-109/288

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-9-2 to 3-7-11, Exterior(2N) 3-7-11 to 18-9-0, Corner(3R) 18-9-0 to 23-1-13, Exterior(2N) 23-1-13 to 37-4-4 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, 35, 36, 38, 39, 40, 41, 42, 33, 32, 30, 29, 28, 27, 26 except (jt=lb) 43=160, 25=148.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	A02	FINK	6	1	I73190280
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:00 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

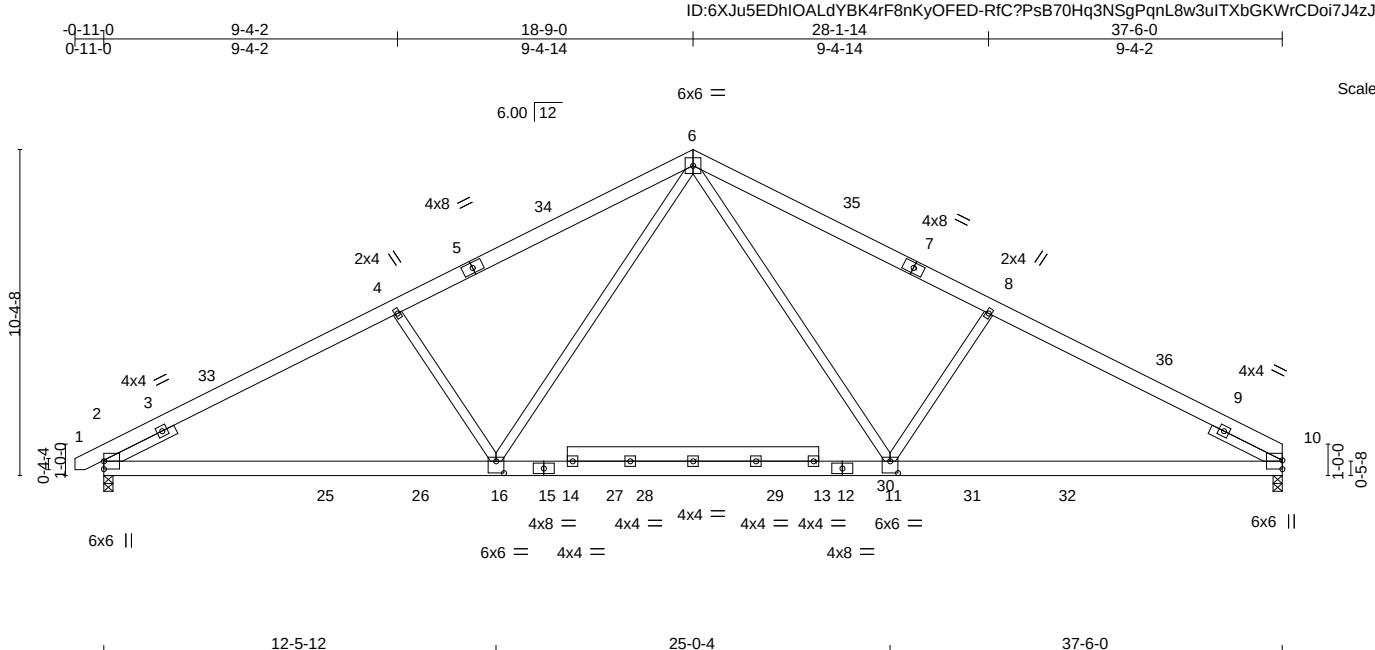


Plate Offsets (X,Y)-- [11:0-3-0,0-4-8], [16:0-3-0,0-4-8]

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	0.32	Vert(LL)	-0.18	11-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.37	11-16	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.07	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	11-16	>999	240	Weight: 265 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 2-6-0, Right 2x4 SP No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=128(LC 9)
Max Grav 2=1927(LC 2), 10=1888(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3096/329, 4-6=-2895/350, 6-8=-2897/356, 8-10=-3097/335
BOT CHORD 2-16=-194/2740, 11-16=-19/1875, 10-11=-180/2695
WEBS 4-16=-485/315, 6-16=-11/1219, 6-11=-12/1221, 8-11=-487/316

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 18-9-0, Exterior(2R) 18-9-0 to 23-1-13, Interior(1) 23-1-13 to 37-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 18-9-0 from left end, supported at two points, 5-0-0 apart.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	A03	COMMON	3	1	I73190281
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:01 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

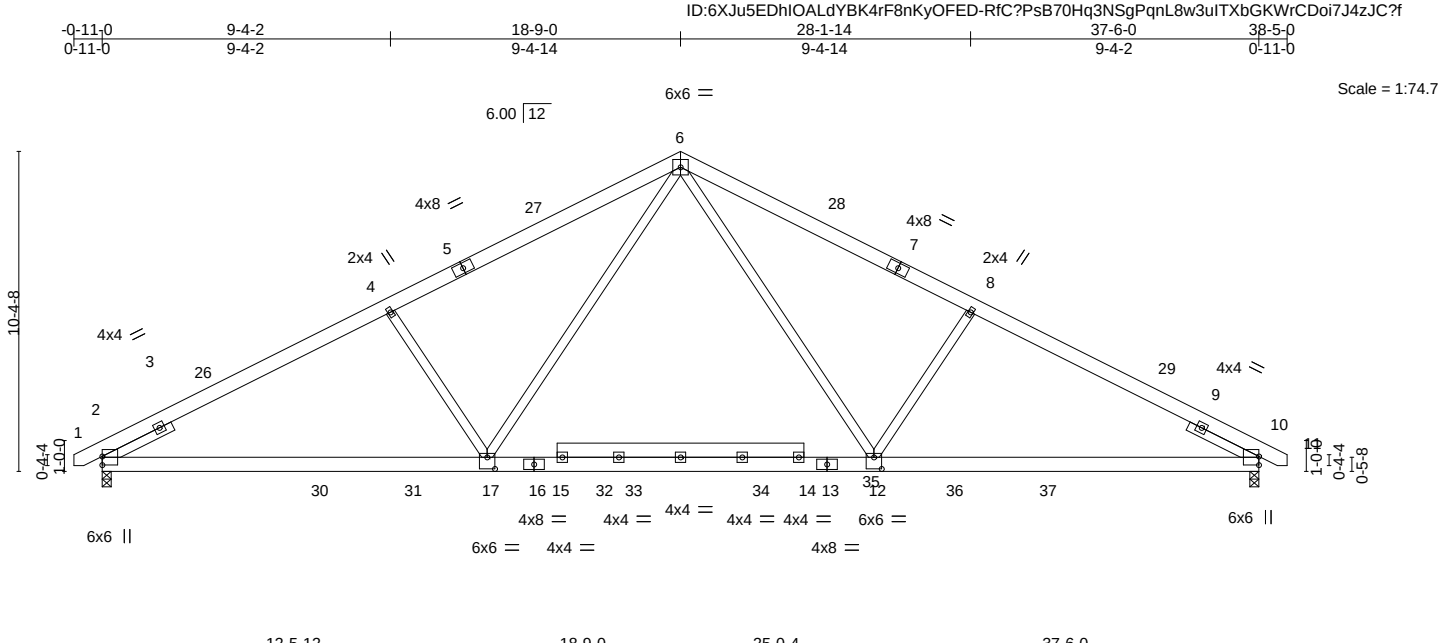


Plate Offsets (X,Y)-- [12:0-3-0,0-4-8], [17:0-3-0,0-4-8]

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	0.32	Vert(LL)	-0.18	12-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.37	12-17	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.07	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	12-17	>999	240	Weight: 268 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 2-6-0, Right 2x4 SP No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=127(LC 11)
Max Grav 2=1926(LC 2), 10=1926(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3095/329, 4-6=-2895/350, 6-8=-2895/350, 8-10=-3095/329
BOT CHORD 2-17=-167/2744, 12-17=0/1879, 10-12=-165/2692
WEBS 4-17=-485/315, 6-17=-12/1219, 6-12=-12/1219, 8-12=-485/315

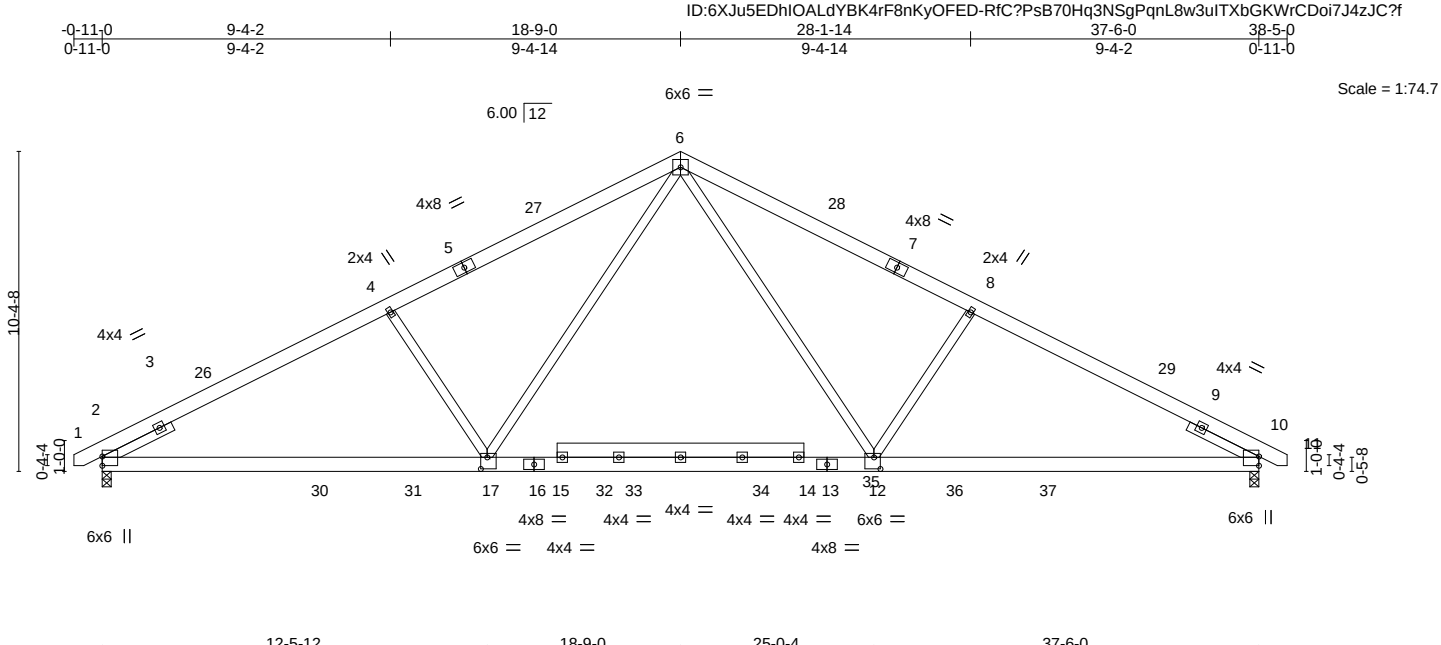
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 18-9-0, Exterior(2R) 18-9-0 to 23-1-13, Interior(1) 23-1-13 to 38-3-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 18-9-0 from left end, supported at two points, 5-0-0 apart.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	A04	COMMON	1	1	I73190282
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:02 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



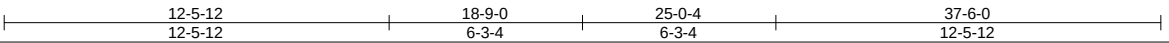


Plate Offsets (X,Y)-- [12:0-2-8,0-4-8], [17:0-2-8,0-4-8]

LOADING (psf)		SPACING-	2-1-8	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.20	12-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.39	12-17	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-MS		Wind(LL)	0.06	12-17	>999	240	Weight: 268 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 2-6-0, Right 2x4 SP No.2 2-6-0

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=135(LC 11)
Max Uplift 2=-6(LC 12), 10=-6(LC 13)
Max Grav 2=2040(LC 2), 10=2040(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3282/366, 4-6=-3067/387, 6-8=-3067/387, 8-10=-3282/366
BOT CHORD 2-17=-192/2912, 12-17=0/1980, 10-12=-190/2858
WEBS 4-17=-530/342, 6-17=-26/1303, 6-12=-26/1303, 8-12=-530/342

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 18-9-0, Exterior(2R) 18-9-0 to 23-1-13, Interior(1) 23-1-13 to 38-3-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 18-9-0 from left end, supported at two points, 5-0-0 apart.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	A04A	COMMON	1	1	I73190283
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:02 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

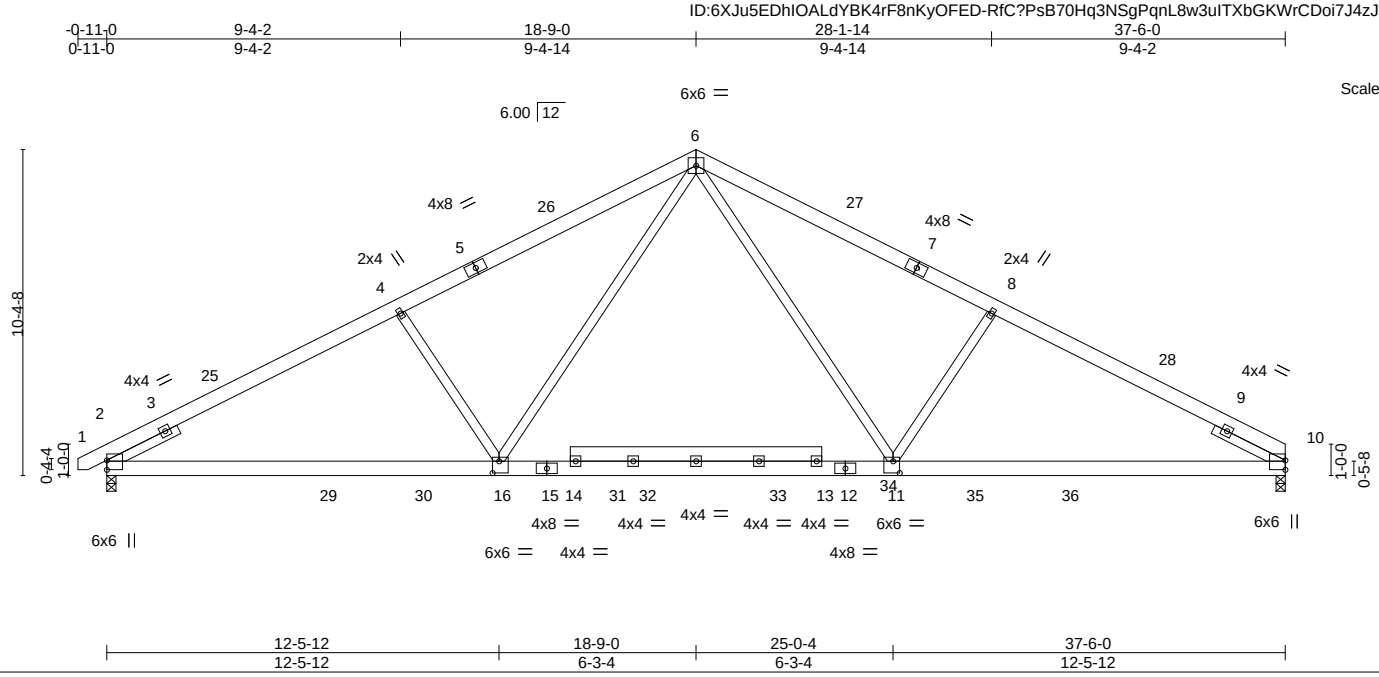


Plate Offsets (X,Y)-- [11:0-2-8,0-4-8], [16:0-2-8,0-4-8]

LOADING (psf)		SPACING-	2-1-8	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.20	11-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.39	11-16	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-MS		Wind(LL)	0.06	11-16	>999	240	Weight: 265 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 2-6-0, Right 2x4 SP No.2 2-6-0

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=136(LC 9)
Max Uplift 2=-6(LC 12)
Max Grav 2=2041(LC 2), 10=2000(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3283/366, 4-6=-3068/387, 6-8=-3069/393, 8-10=-3284/372
BOT CHORD 2-16=-221/2908, 11-16=-24/1975, 10-11=-206/2860
WEBS 4-16=-530/342, 6-16=-26/1303, 6-11=-26/1305, 8-11=-532/342

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 18-9-0, Exterior(2R) 18-9-0 to 23-1-13, Interior(1) 23-1-13 to 37-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 18-9-0 from left end, supported at two points, 5-0-0 apart.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.

May 5,2025

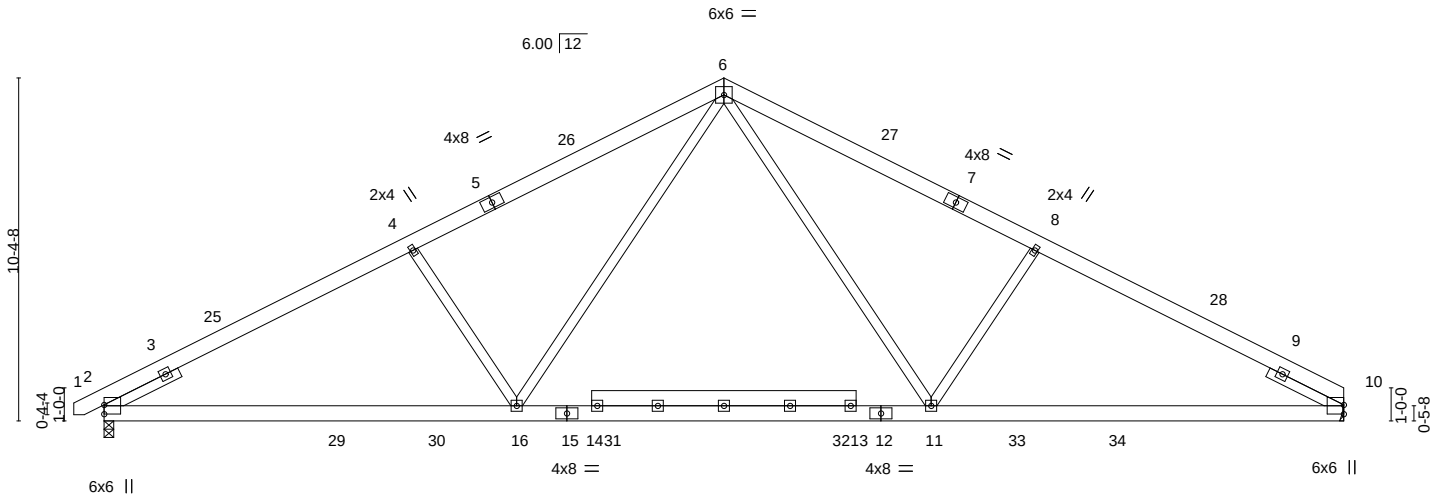
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	A05	COMMON	9	1	I73190284
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:03 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-11-0 9-4-2 18-9-0 28-1-14 37-6-0
0-11-0 9-4-2 9-4-14 9-4-14 9-4-2

Scale = 1:69.7



12-5-12 18-9-0 25-0-4 37-6-0
12-5-12 6-3-4 6-3-4 12-5-12

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	0.29	Vert(LL)	-0.18	11-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.28	11-16	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.06	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	11-16	>999	240	Weight: 265 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 2-6-0, Right 2x4 SP No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 10=Mechanical
Max Horz 2=128(LC 9)
Max Uplift 2=-100(LC 12), 10=-89(LC 13)
Max Grav 2=1827(LC 2), 10=1788(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2884/541, 4-6=-2682/563, 6-8=-2684/569, 8-10=-2886/547
BOT CHORD 2-16=-378/2556, 11-16=-154/1740, 10-11=-364/2511
WEBS 4-16=-502/298, 6-16=-120/1110, 6-11=-120/1113, 8-11=-504/298

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 18-9-0, Exterior(2R) 18-9-0 to 23-1-13, Interior(1) 23-1-13 to 37-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 4x4 MT20 unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
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.

May 5,2025

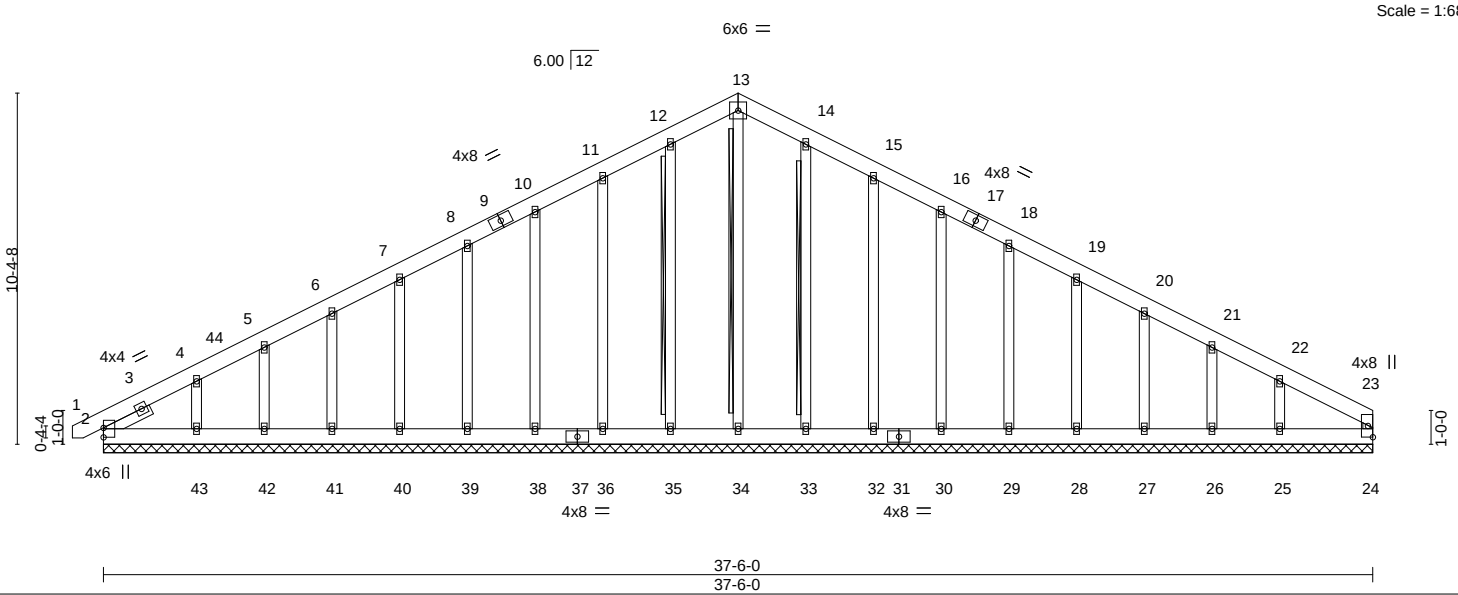
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	A06-GE	COMMON SUPPORTED GAB	1	1	I73190285
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:04 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-11-0 18-9-0 37-6-0
0-11-0 18-9-0 18-9-0

Scale = 1:68.1



37-6-0
37-6-0

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	0.08	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	24	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 324 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
SLIDER	Left 2x4 SP No.2 1-6-4

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	T-Brace: 2x4 SPF No.2 - 13-34, 12-35, 14-33 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. All bearings 37-6-0.
(lb) - Max Horz 2=210(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 35, 36, 38, 39, 40, 41, 42, 33, 32, 30, 29, 28, 27, 26 except 43=-160(LC 12), 25=-148(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 24, 2, 34, 35, 36, 38, 39, 40, 41, 42, 43, 33, 32, 30, 29, 28, 27, 26, 25

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-257/111, 10-11=-109/288, 11-12=-131/352, 12-13=-145/389, 13-14=-145/389, 14-15=-131/352, 15-16=-109/288

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-9-2 to 3-7-11, Exterior(2N) 3-7-11 to 18-9-0, Corner(3R) 18-9-0 to 23-1-13, Exterior(2N) 23-1-13 to 37-4-4 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, 35, 36, 38, 39, 40, 41, 42, 33, 32, 30, 29, 28, 27, 26 except (jt=lb) 43=160, 25=148.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	C01GE	GABLE	1	1	I73190286
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:04 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

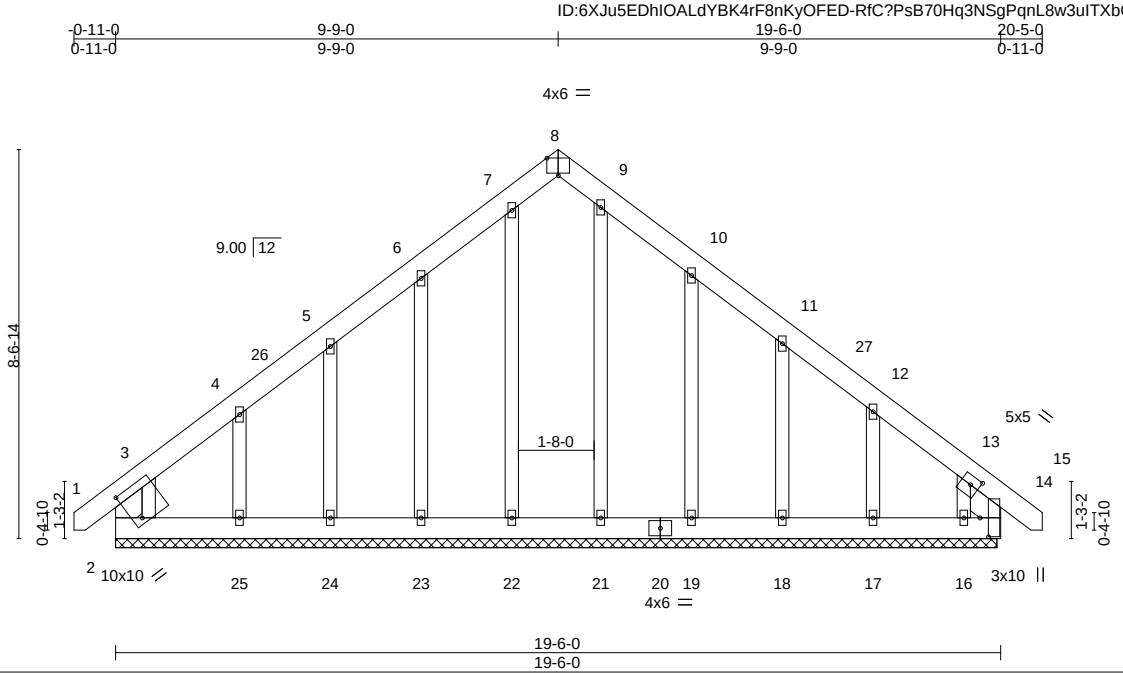


Plate Offsets (X,Y)-- [2:0-2-6,0-8-7], [8:0-3-0,Edge], [13:0-2-5,0-2-4], [14:0-5-0,0-2-4]

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	0.06	Vert(LL)	-0.00	14	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	14	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S							Weight: 171 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
SLIDER Left 2x6 SP No.1 0-10-6, Right 2x6 SP No.1 0-11-10

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 19-5-0.
(lb) - Max Horz 2=241(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 24, 18, 14 except 23=-115(LC 12), 25=-179(LC 12), 19=-115(LC 13), 17=-107(LC 13), 16=-242(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 22, 23, 24, 25, 21, 19, 18, 17, 16 except 14=278(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 13-14=-335/149

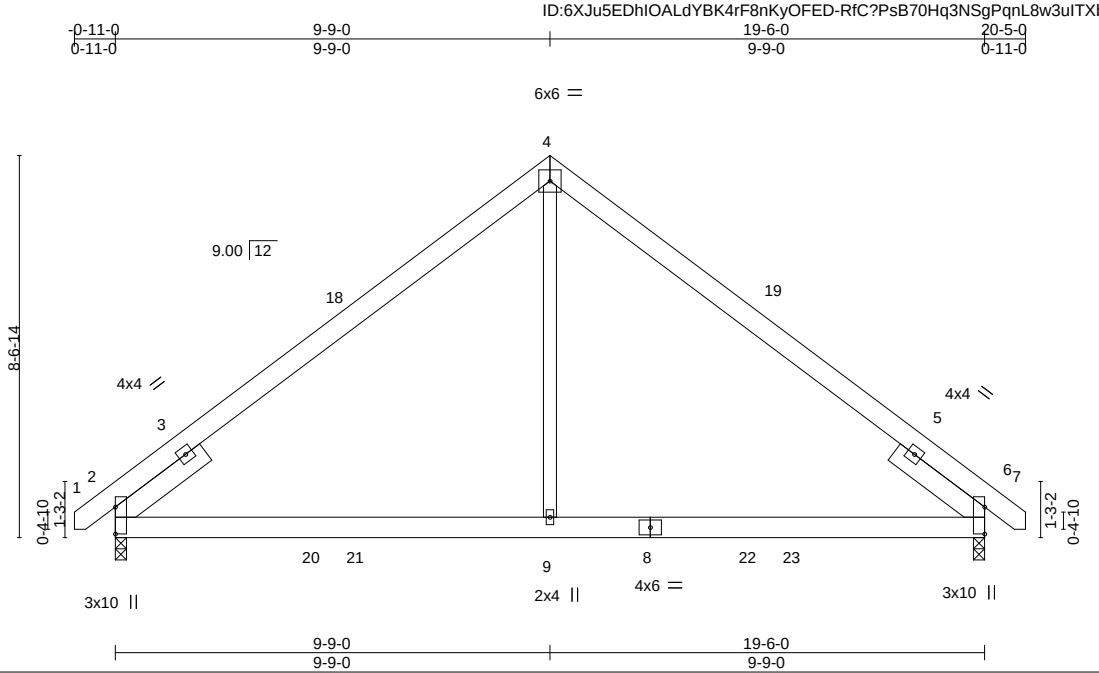
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-9-8 to 3-7-5, Exterior(2N) 3-7-5 to 9-9-0, Corner(3R) 9-9-0 to 14-1-13, Exterior(2N) 14-1-13 to 20-3-8 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) 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) 2, 22, 24, 18, 14 except (jt=lb) 23=115, 25=179, 19=115, 17=107, 16=242.
9) Non Standard bearing condition. Review required.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	C02	COMMON	2	1	I73190287
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:05 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.08	9-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.12	9-16	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.09	9-16	>999	240	Weight: 132 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.1 2-6-0, Right 2x6 SP No.1 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 6=0-3-0, 2=0-3-0
Max Horz 2=-190(LC 10)
Max Uplift 6=-111(LC 8), 2=-111(LC 9)
Max Grav 6=1030(LC 2), 2=1030(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-931/766, 4-6=-931/766
BOT CHORD 2-9=-421/747, 6-9=-421/747
WEBS 4-9=-578/747

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-9-8 to 3-7-5, Interior(1) 3-7-5 to 9-9-0, Exterior(2R) 9-9-0 to 14-1-13, Interior(1) 14-1-13 to 20-3-8 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, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=111, 2=111.
6) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	C03	COMMON SUPPORTED GAB	1	1	I73190288
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:05 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

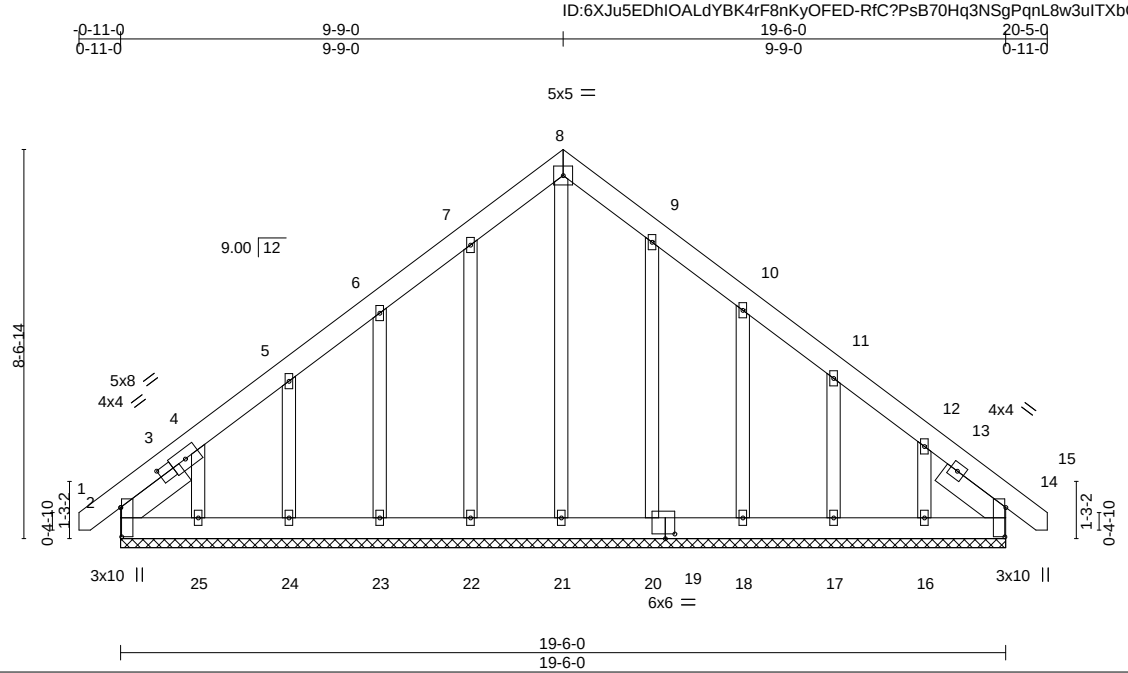


Plate Offsets (X,Y)-- [2:0-7-12,0-0-4], [2:1-1-6,0-2-0], [14:0-7-12,0-0-4], [19:0-2-8,0-1-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	14	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	14	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S							Weight: 175 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
SLIDER Left 2x6 SP No.1 1-8-15, Right 2x6 SP No.1 1-8-14

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 19-6-0.
(lb) - Max Horz 2=240(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 20, 17, 14 except 23=-103(LC 12), 24=-122(LC 12), 25=-153(LC 12), 18=-111(LC 13), 16=-184(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 21, 22, 23, 24, 25, 20, 18, 17, 16, 14

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-260/173

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-9-8 to 3-8-8, Exterior(2N) 3-8-8 to 9-9-0, Corner(3R) 9-9-0 to 14-1-13, Exterior(2N) 14-1-13 to 20-3-8 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable 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, 22, 20, 17, 14 except (jt=lb) 23=103, 24=122, 25=153, 18=111, 16=184.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	C04	COMMON	2	1	I73190289
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:06 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

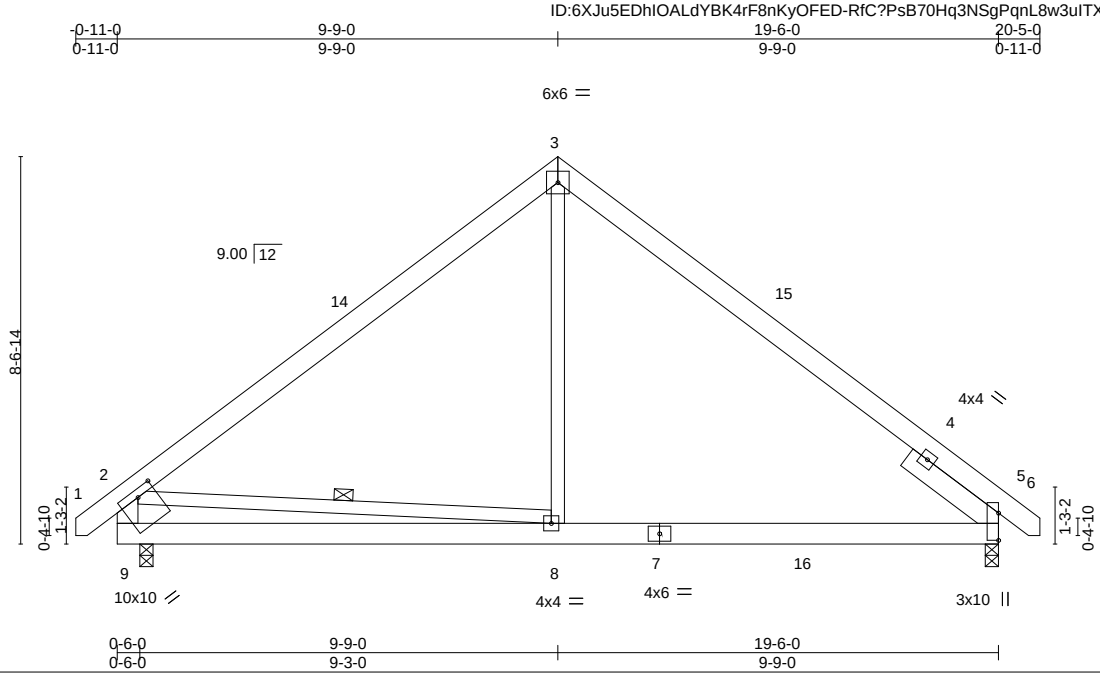


Plate Offsets (X,Y)-- [9:0-4-12,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.10	8-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.14	8-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.05	8-12	>999	240	Weight: 141 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except*
	2-9: 2x6 SP No.1
SLIDER	Right 2x6 SP No.1 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 2-8

REACTIONS. (size) 5=0-3-8, 9=0-3-8
Max Horz 9=-214(LC 10)
Max Uplift 5=-46(LC 13), 9=-48(LC 12)
Max Grav 5=998(LC 20), 9=967(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1014/217, 3-5=-864/214, 2-9=-831/258
BOT CHORD 8-9=-287/775, 5-8=0/723
WEBS 3-8=0/569, 2-8=-241/335

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-9-8 to 3-7-5, Interior(1) 3-7-5 to 9-9-0, Exterior(2R) 9-9-0 to 14-1-13, Interior(1) 14-1-13 to 20-3-8 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 9.
6) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	C05	COMMON	1	1	I73190290
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:06 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

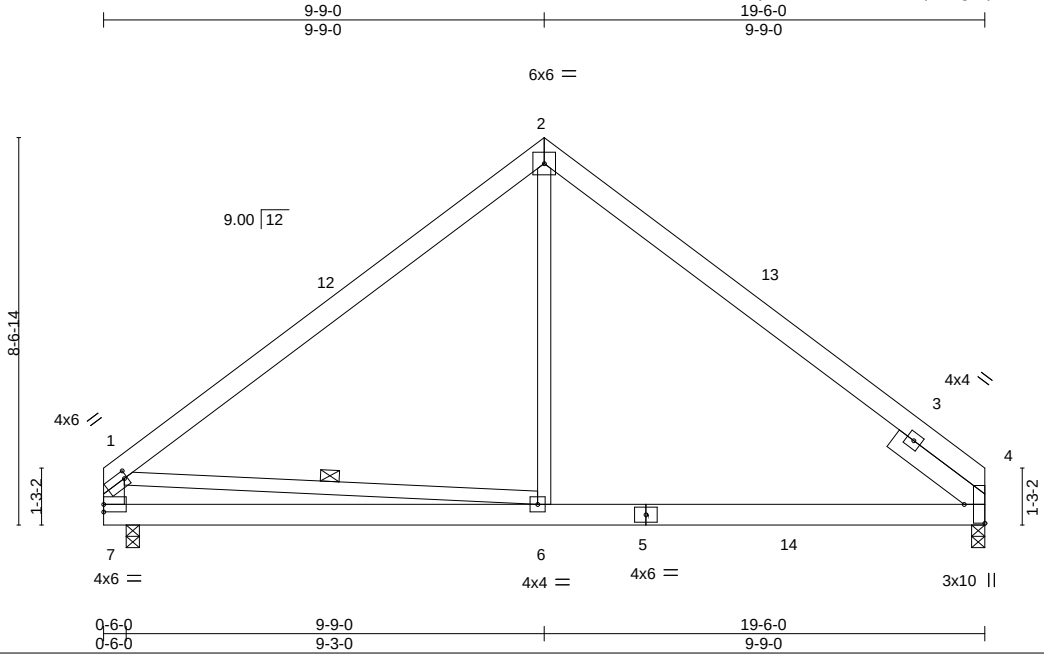


Plate Offsets (X,Y)-- [1:0-0-12,0-2-0], [4:Edge,0-5-8]

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	0.30	Vert(LL)	-0.10	6-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.14	6-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-AS		Wind(LL)	0.05	6-10	>999	240	Weight: 136 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except*
	1-7: 2x6 SP No.1
SLIDER	Right 2x6 SP No.1 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 1-6

REACTIONS. (size) 4=0-3-8, 7=0-3-8
Max Horz 7=-175(LC 8)
Max Uplift 4=-34(LC 13), 7=-33(LC 12)
Max Grav 4=955(LC 20), 7=909(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1014/214, 2-4=-870/213, 1-7=-772/207
BOT CHORD 6-7=-239/661, 4-6=-9/721
WEBS 2-6=0/566, 1-6=-159/373

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 9-9-0, Exterior(2R) 9-9-0 to 14-1-13, Interior(1) 14-1-13 to 19-6-0 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7.
6) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	C06-GR	COMMON GIRDER	1	3	I73190291
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:07 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

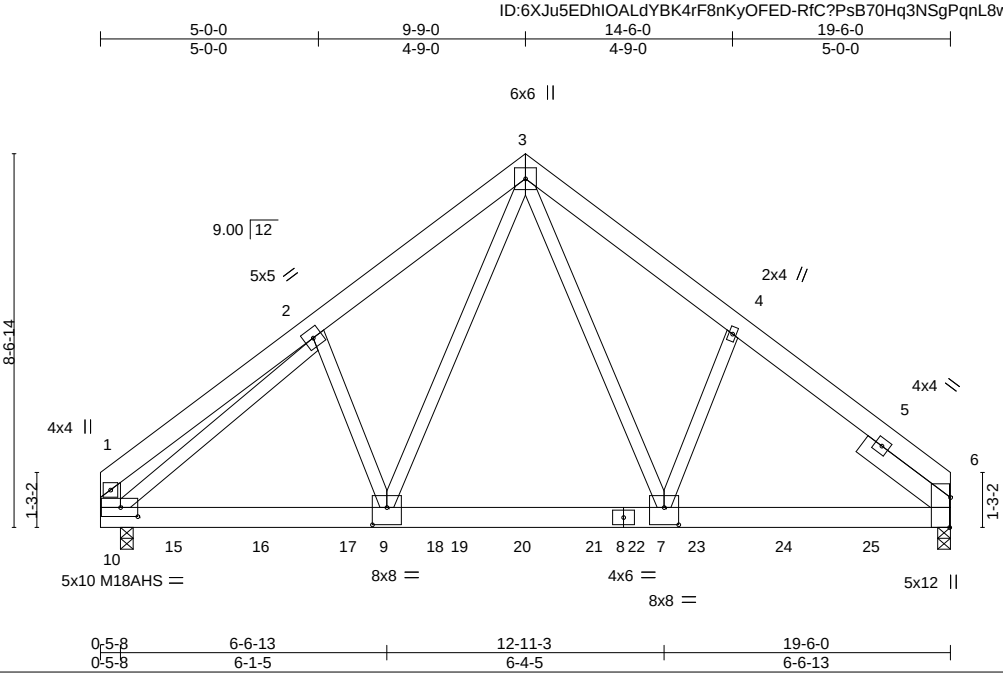


Plate Offsets (X,Y)-- [6:0-8-4,Edge], [7:0-4-0,0-4-12], [9:0-4-0,0-4-12], [10:0-4-12,0-2-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.10	7-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.17	7-9	>999	240	M18AHS	186/179
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.47	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-MS		Wind(LL)	0.05	7-9	>999	240	Weight: 472 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
1-10: 2x6 SP No.1
SLIDER Right 2x6 SP No.1 2-6-0

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

REACTIONS. (size) 6=0-3-8, 10=0-3-8
Max Horz 10=-198(LC 6)
Max Uplift 6=-480(LC 9), 10=-500(LC 8)
Max Grav 6=8551(LC 2), 10=8910(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3479/258, 2-3=-9361/637, 3-4=-9307/643, 4-6=-9521/568, 1-10=-2294/190
BOT CHORD 9-10=-450/7176, 7-9=-261/5389, 6-7=-389/7344
WEBS 3-7=-406/5729, 4-7=-209/519, 3-9=-396/5755, 2-9=-209/956, 2-10=-6274/337

NOTES-
1) 3-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 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=480, 10=500.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1753 lb down and 109 lb up at 1-7-12, 1753 lb down and 109 lb up at 3-7-12, 1753 lb down and 109 lb up at 5-7-12, 1746 lb down and 109 lb up at 7-7-12, 1723 lb down and 109 lb up at 9-7-12, 1743 lb down and 109 lb up at 11-7-12, 1753 lb down and 109 lb up at 13-7-12, and 1753 lb down and 109 lb up at 15-7-12, and 1753 lb down and 109 lb up at 17-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

May 5,2025

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, 3-6=-60, 10-11=-20
   Concentrated Loads (lb)
   Vert: 15=-1480(B) 16=-1480(B) 17=-1480(B) 18=-1480(B) 20=-1480(B) 22=-1480(B) 23=-1480(B) 24=-1480(B) 25=-1480(B)

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	D01GE	GABLE	1	1	I73190292
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:07 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

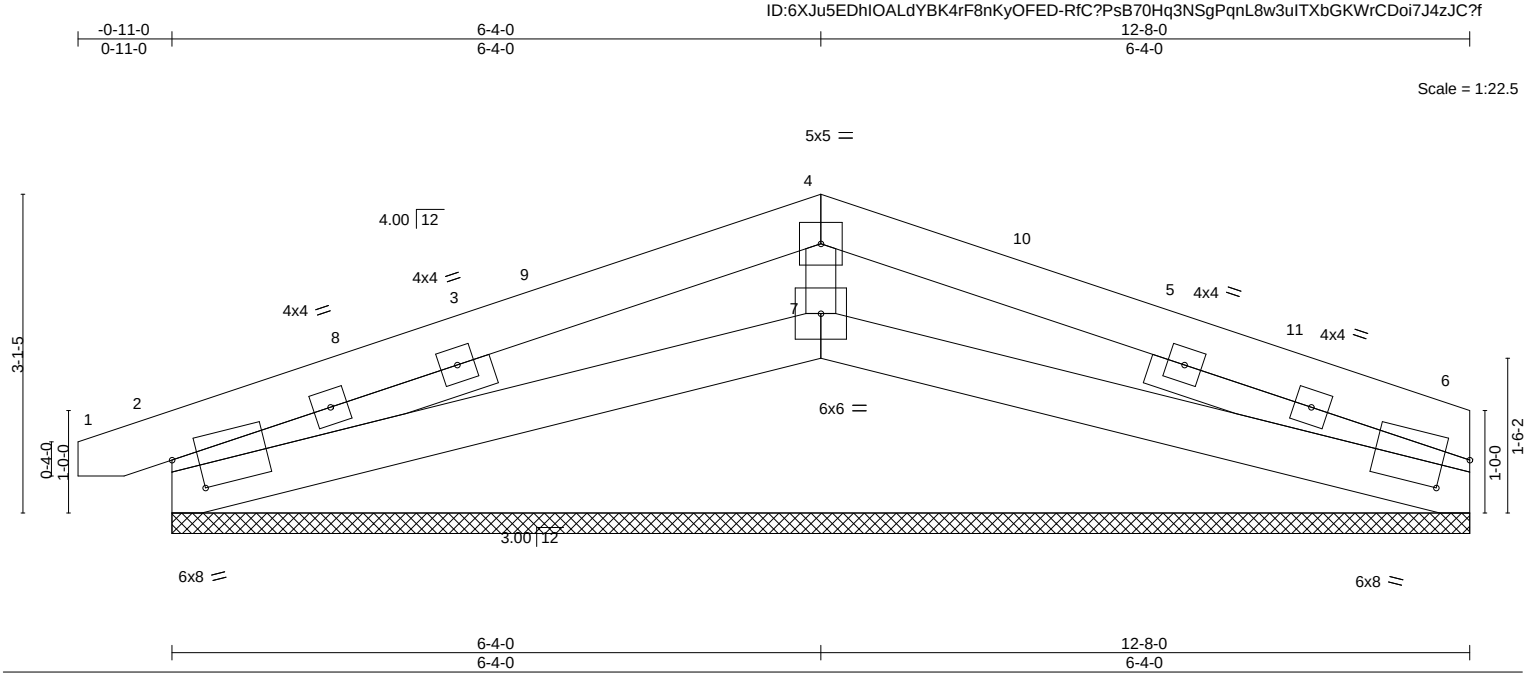


Plate Offsets (X,Y)-- [2:0-3-0,0-4-2], [6:0-3-0,0-4-2]

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)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 76 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 3-3-9, Right 2x4 SP No.2 3-3-9

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) 6=12-8-0, 2=12-8-0, 7=12-8-0
Max Horz 2=-61(LC 17)
Max Uplift 6=-116(LC 9), 2=-146(LC 8), 7=-21(LC 8)
Max Grav 6=288(LC 1), 2=339(LC 1), 7=417(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-450/437, 4-6=-449/434
BOT CHORD 2-7=-318/383, 6-7=-317/383

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-8-5 to 3-8-8, Interior(1) 3-8-8 to 6-4-0, Exterior(2R) 6-4-0 to 10-8-13, Interior(1) 10-8-13 to 12-6-11 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) 7 except (jt=lb) 6=116, 2=146.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7.

May 5,2025

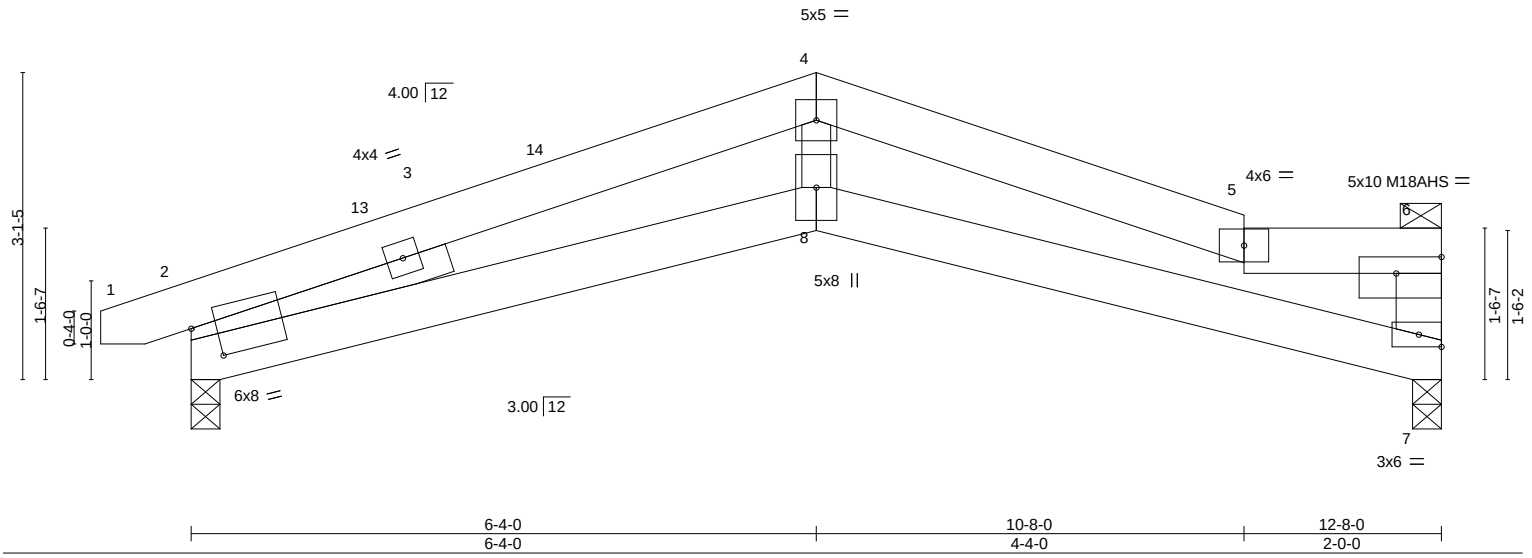
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	D02	ROOF SPECIAL	1	1	I73190293
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:08 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-11-0 / 0-11-0 | 6-4-0 / 6-4-0 | 10-8-0 / 4-4-0 | 12-8-0 / 2-0-0

Scale = 1:23.3



6-4-0 / 6-4-0 | 10-8-0 / 4-4-0 | 12-8-0 / 2-0-0

Plate Offsets (X,Y)-- [2:0-3-0,0-4-2], [6:Edge,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.09	8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.18	8	>839	240	M18AHS	186/179
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.10	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.11	8	>999	240	Weight: 71 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
4-8: 2x4 SP No.2
SLIDER Left 2x4 SP No.2 2-9-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=31(LC 16)
Max Uplift 7=-40(LC 9), 2=-64(LC 8)
Max Grav 7=496(LC 1), 2=541(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1148/613, 4-5=-1152/633, 5-6=-1075/567, 6-7=-597/356
BOT CHORD 2-8=-609/1086, 7-8=-603/1080
WEBS 4-8=-158/488

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-8-5 to 3-8-8, Interior(1) 3-8-8 to 6-4-0, Exterior(2E) 6-4-0 to 10-8-0, Interior(1) 10-8-0 to 12-5-4 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
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) Bearing at joint(s) 7, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
9) 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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	D03	ROOF SPECIAL	1	1	I73190294
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:08 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

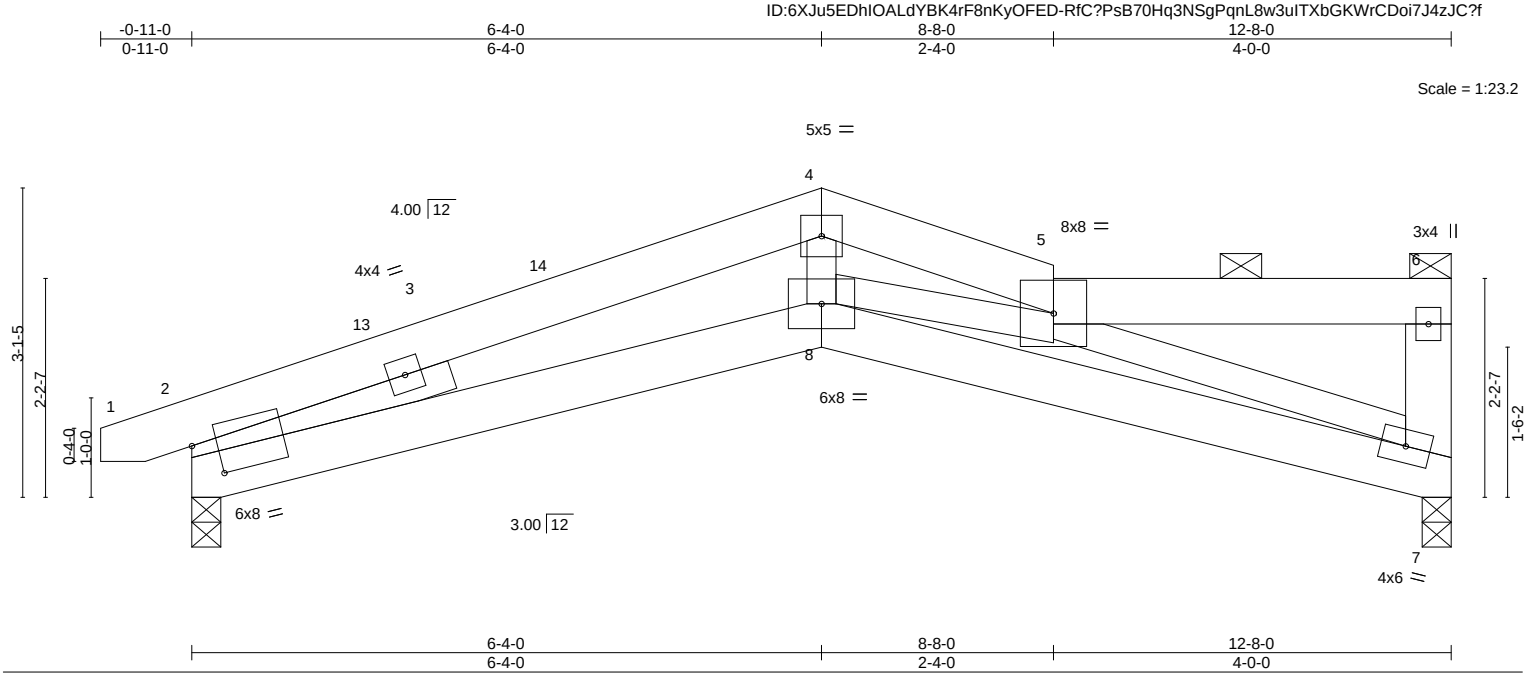


Plate Offsets (X,Y)-- [2:0-3-0,0-4-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.05	8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.09	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	8	>999	240	Weight: 82 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
6-7: 2x6 SP No.1
SLIDER Left 2x4 SP No.2 2-9-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=58(LC 11)
Max Uplift 2=-62(LC 8), 7=-43(LC 9)
Max Grav 2=541(LC 1), 7=496(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1355/800, 4-5=-1339/826
BOT CHORD 2-8=-845/1291, 7-8=-799/1280
WEBS 4-8=-299/649, 5-7=-1236/776

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-8-5 to 3-8-8, Interior(1) 3-8-8 to 6-4-0, Exterior(2E) 6-4-0 to 8-8-0, Interior(1) 8-8-0 to 12-5-4 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
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) Bearing at joint(s) 2, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 5,2025

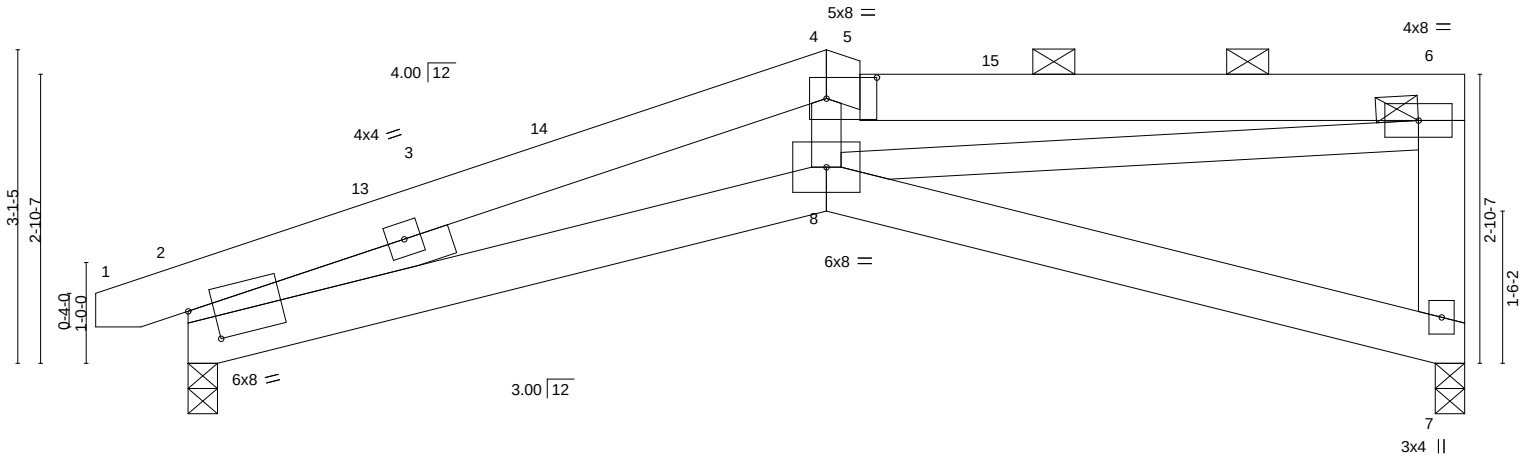
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	D04	ROOF SPECIAL	1	1	I73190295
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:09 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-11-0 / 0-11-0 | 6-4-0 / 6-4-0 | 6-8-0 / 0-4-0 | 12-8-0 / 6-0-0

Scale = 1:22.9



6-4-0 / 6-4-0 | 12-8-0 / 6-4-0

Plate Offsets (X,Y)-- [2:0-3-0,0-4-2], [4:0-6-0,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.06	8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.12	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.08	8	>999	240	Weight: 83 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
6-7: 2x6 SP No.1
SLIDER Left 2x4 SP No.2 2-9-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=90(LC 11)
Max Uplift 2=-58(LC 8), 7=-49(LC 9)
Max Grav 2=541(LC 1), 7=496(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1391/847, 4-5=-1102/715, 5-6=-1299/849, 6-7=-426/301
BOT CHORD 2-8=-945/1330
WEBS 4-8=-14/274, 6-8=-816/1157

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-8-5 to 3-8-8, Interior(1) 3-8-8 to 6-4-0, Exterior(2E) 6-4-0 to 6-8-0, Interior(1) 6-8-0 to 12-5-4 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
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) Bearing at joint(s) 2, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	D05	HALF HIP	1	1	I73190296
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:09 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

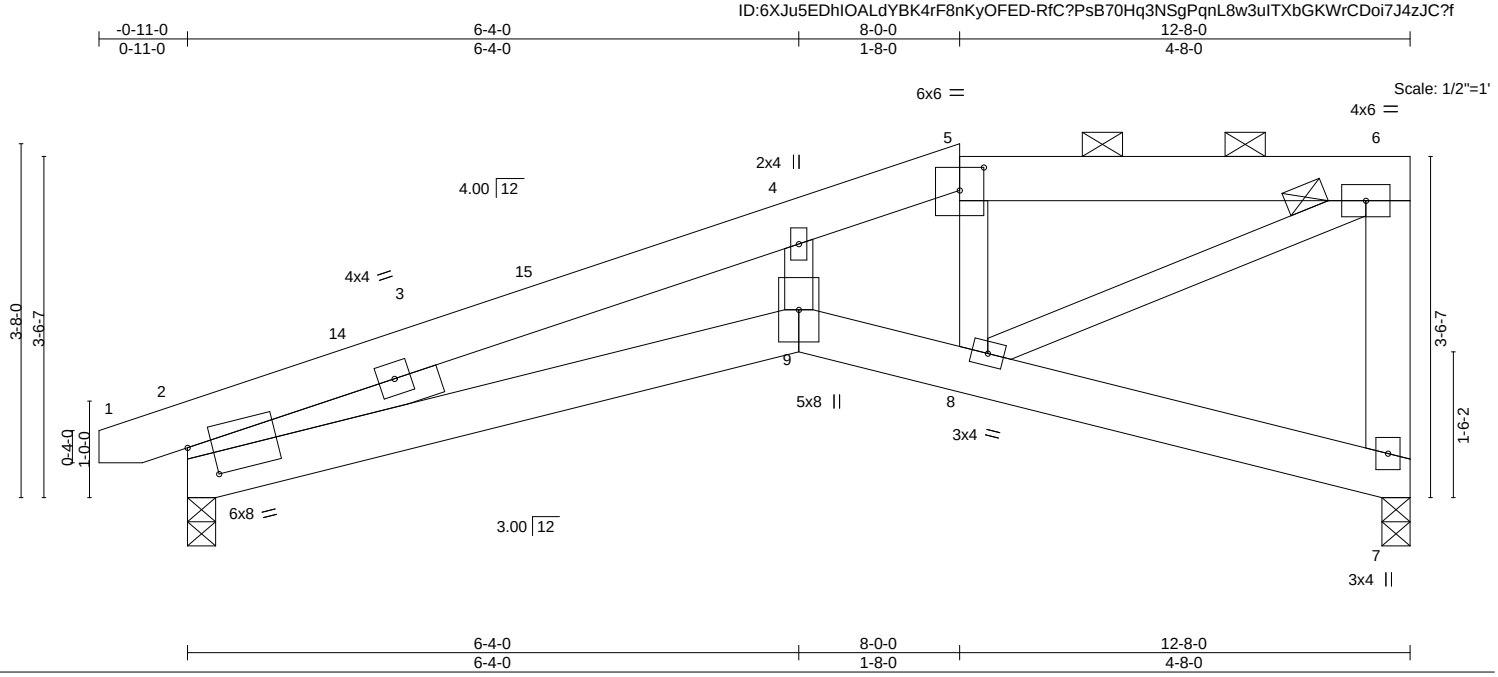


Plate Offsets (X,Y)-- [2:0-3-0,0-4-2], [5:0-3-0,0-2-14]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.06	9-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.12	9-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.09	9-12	>999	240	Weight: 84 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
6-7: 2x6 SP No.1
SLIDER Left 2x4 SP No.2 2-9-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=117(LC 11)
Max Uplift 2=-74(LC 8), 7=-57(LC 8)
Max Grav 2=541(LC 1), 7=496(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-991/573, 4-5=-862/554, 5-6=-879/593, 6-7=-507/370
BOT CHORD 2-9=-729/924, 8-9=-682/868
WEBS 5-8=-262/263, 6-8=-712/962

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-8-5 to 3-8-8, Interior(1) 3-8-8 to 8-0-0, Exterior(2E) 8-0-0 to 12-5-4 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
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) Bearing at joint(s) 2, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	D06	HALF HIP	1	1	I73190297
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:10 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

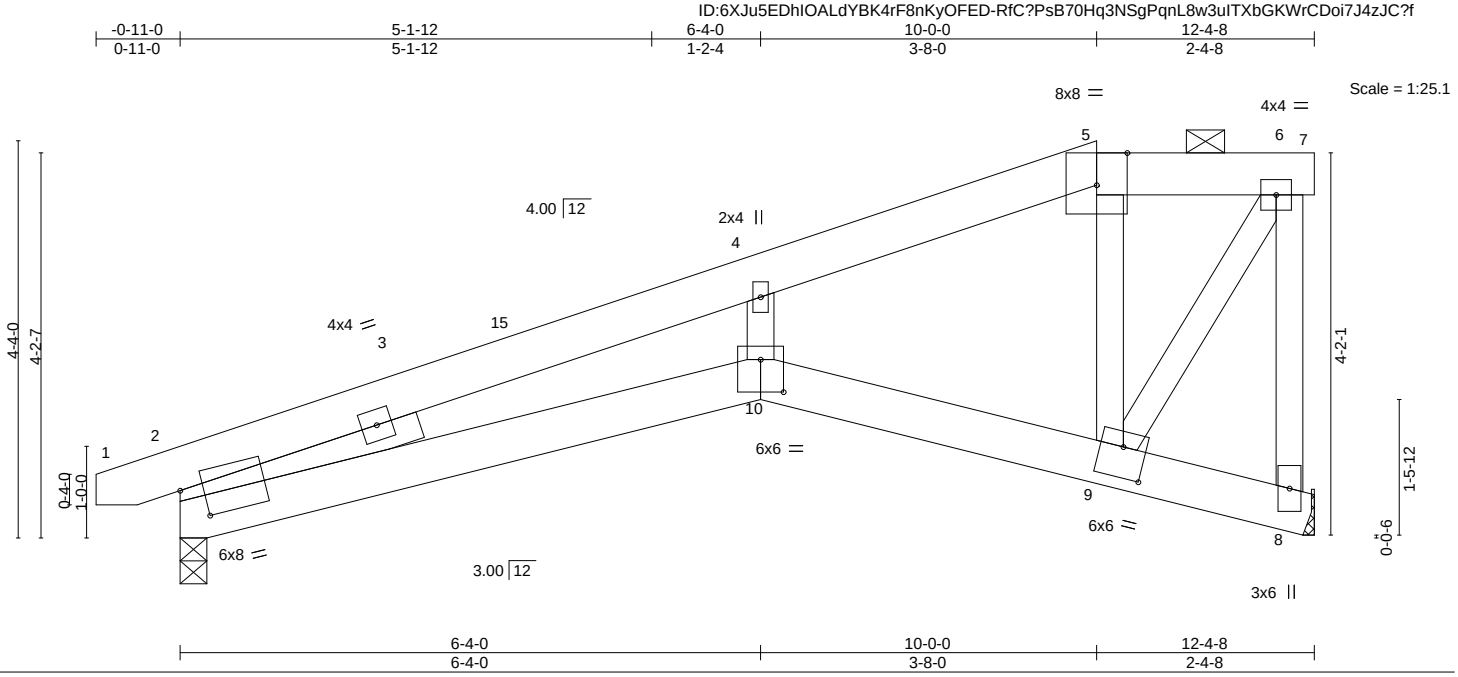


Plate Offsets (X,Y)-- [2:0-3-0,0-4-2], [5:0-4-0,Edge], [9:0-3-0,0-4-0], [10:0-3-0,0-4-4]

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	0.39	Vert(LL)	-0.13	10-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.25	10-13	>573	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.13	8	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-AS		Wind(LL)	0.18	10-13	>828	240	Weight: 82 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 2-9-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 8=Mechanical
Max Horz 2=116(LC 8)
Max Uplift 2=-58(LC 8), 8=-71(LC 8)
Max Grav 2=527(LC 1), 8=488(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-588/250, 4-5=-493/280, 5-6=-485/329, 6-8=-689/455
BOT CHORD 2-10=-359/524, 9-10=-327/481
WEBS 5-9=-434/367, 6-9=-638/940

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-8-5 to 3-8-8, Interior(1) 3-8-8 to 10-0-0, Exterior(2E) 10-0-0 to 12-4-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
9) 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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	G01GE	GABLE	1	1	I73190298
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:10 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

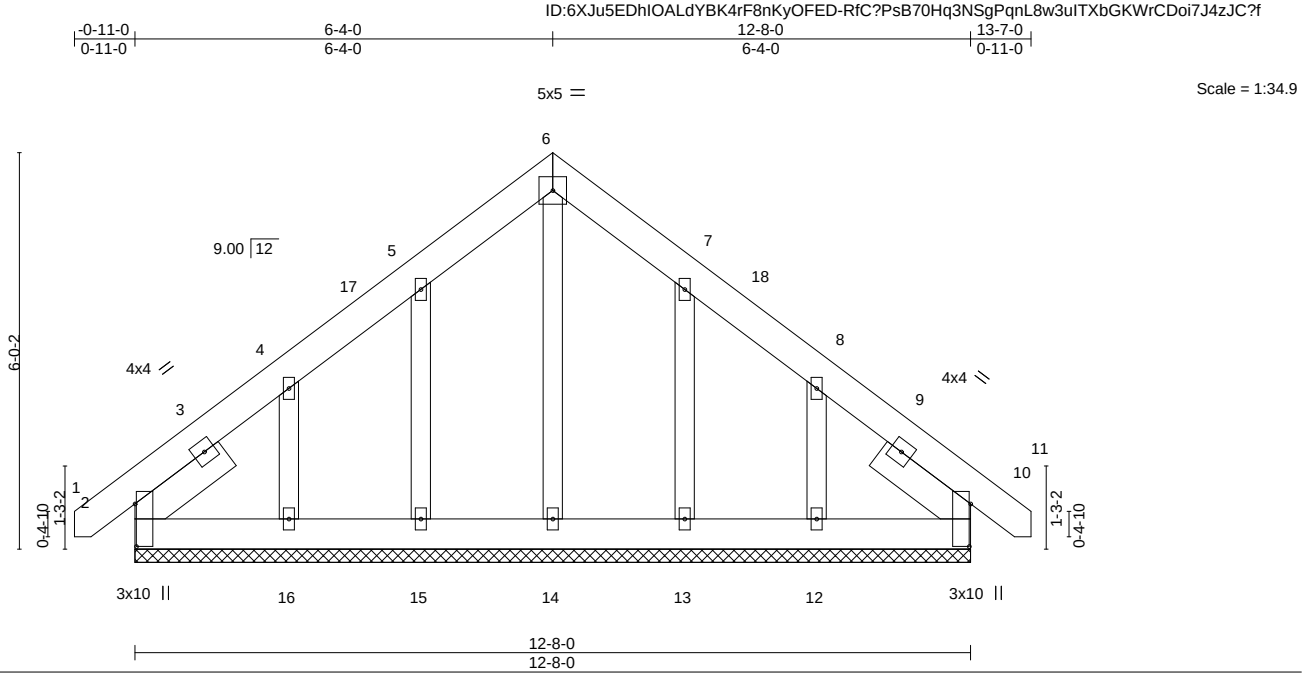


Plate Offsets (X,Y)-- [2:0-7-12,0-0-4], [10:0-7-12,0-0-4]

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	0.04	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	0.07	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S							Weight: 105 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
SLIDER Left 2x6 SP No.1 1-8-9, Right 2x6 SP No.1 1-8-9

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 12-8-0.
(lb) - Max Horz 2=164(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 15, 13 except 16=-174(LC 12), 12=-166(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 14, 15, 16, 13, 12

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-16=-171/275, 8-12=-171/273

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-9-8 to 3-7-5, Exterior(2N) 3-7-5 to 6-4-0, Corner(3R) 6-4-0 to 10-8-13, Exterior(2N) 10-8-13 to 13-5-8 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) 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, 10, 15, 13 except (jt=lb) 16=174, 12=166.

May 5,2025

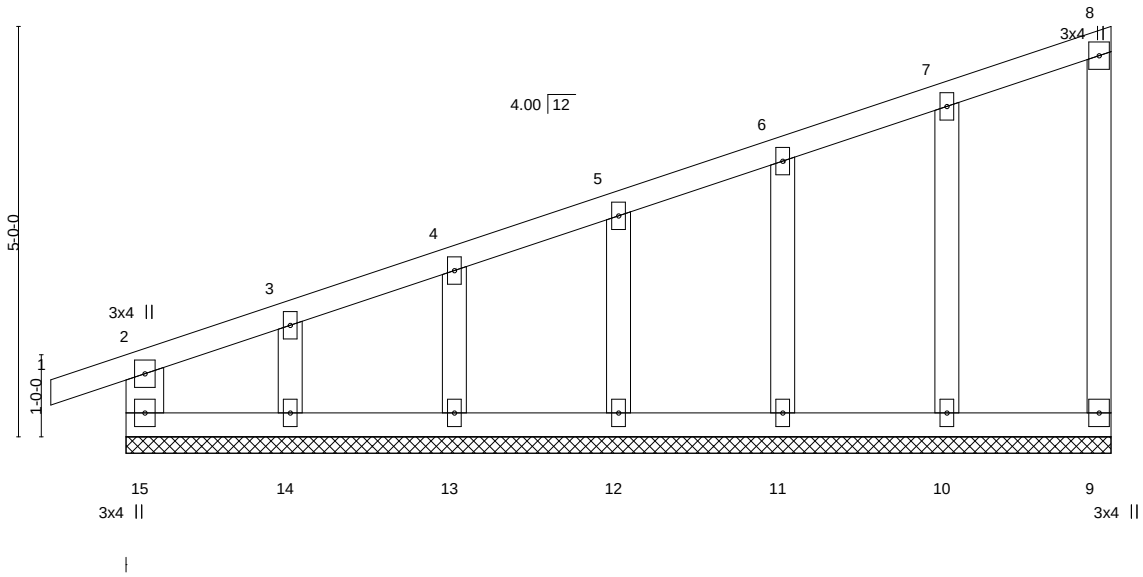
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	M01GE	GABLE	1	1	I73190299
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:11 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-11-0 / 0-11-0 — 12-0-0 / 12-0-0

Scale = 1:28.1



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	0.16	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 64 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.2 *Except* 2-15: 2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

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

REACTIONS. All bearings 12-0-0.
(lb) - Max Horz 15=190(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 9, 10, 11, 12, 13 except 14=-166(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 9, 15, 10, 11, 12, 13, 14

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-346/102, 3-4=-252/75
WEBS 3-14=-131/281

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 3-5-13, Exterior(2N) 3-5-13 to 11-10-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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) 9, 10, 11, 12, 13 except (jt=lb) 14=166.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	M02	MONOPITCH	6	1	I73190300
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:11 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

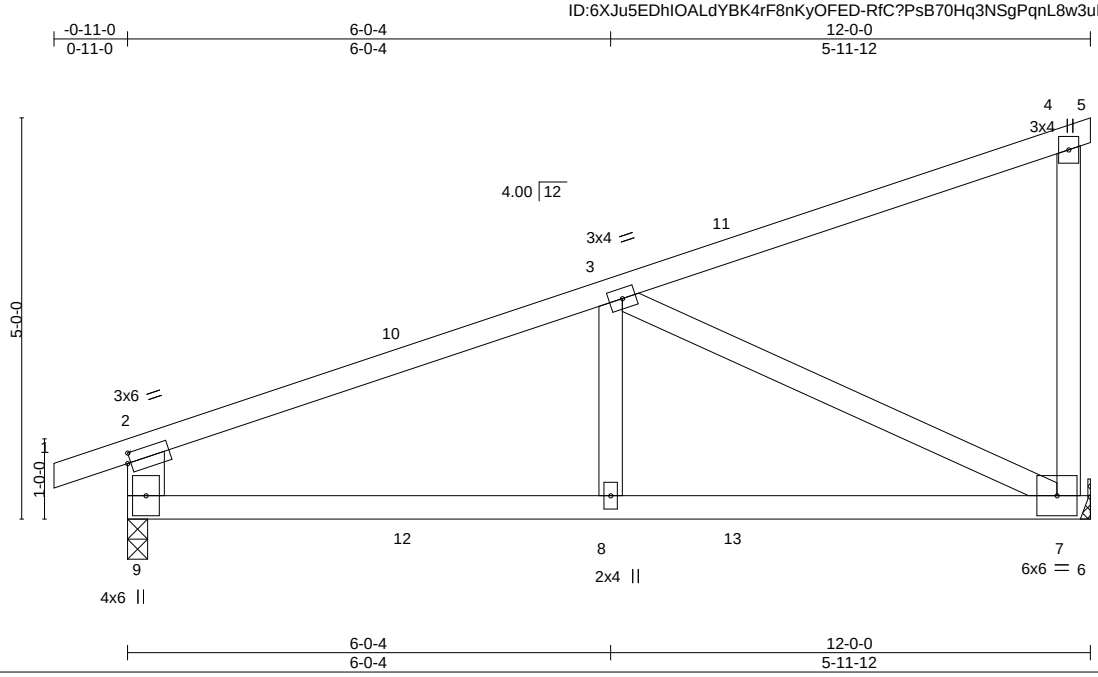


Plate Offsets (X,Y)-- [2:0-0-8,0-1-8]

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	0.41	Vert(LL)	-0.03	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	-0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-AS		Wind(LL)	0.10	7-8	>999	240	Weight: 58 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 9=0-3-0, 7=Mechanical
Max Horz 9=135(LC 8)
Max Uplift 9=-190(LC 8), 7=-207(LC 8)
Max Grav 9=532(LC 1), 7=468(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-621/688, 2-9=-451/457
BOT CHORD 8-9=-798/528, 7-8=-798/528
WEBS 3-8=-366/224, 3-7=-549/832

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; 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 12-0-0 zone; end vertical left exposed; porch left exposed;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) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=190, 7=207.
6) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	M03	MONOPITCH	1	1	I73190301
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:11 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

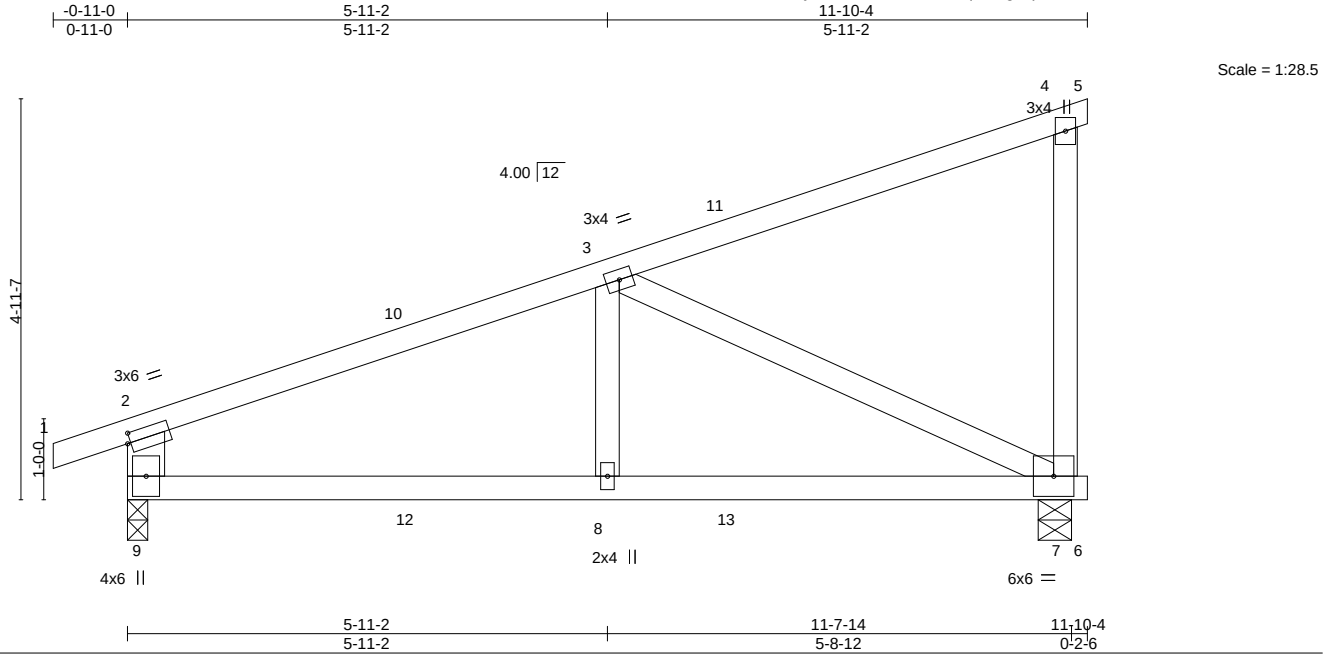


Plate Offsets (X,Y)-- [2:0-0-8,0-1-8]

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	0.40	Vert(LL)	-0.03	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.36	Horz(CT)	-0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-AS		Wind(LL)	0.09	7-8	>999	240	Weight: 58 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 9=0-3-0, 7=0-4-15
Max Horz 9=133(LC 8)
Max Uplift 9=-188(LC 8), 7=-204(LC 8)
Max Grav 9=526(LC 1), 7=462(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-612/686, 2-9=-445/456
BOT CHORD 8-9=-796/519, 7-8=-796/519
WEBS 3-8=-363/220, 3-7=-539/828

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; 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 11-10-4 zone; end vertical left exposed; porch left exposed;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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=188, 7=204.
5) 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.

May 5,2025

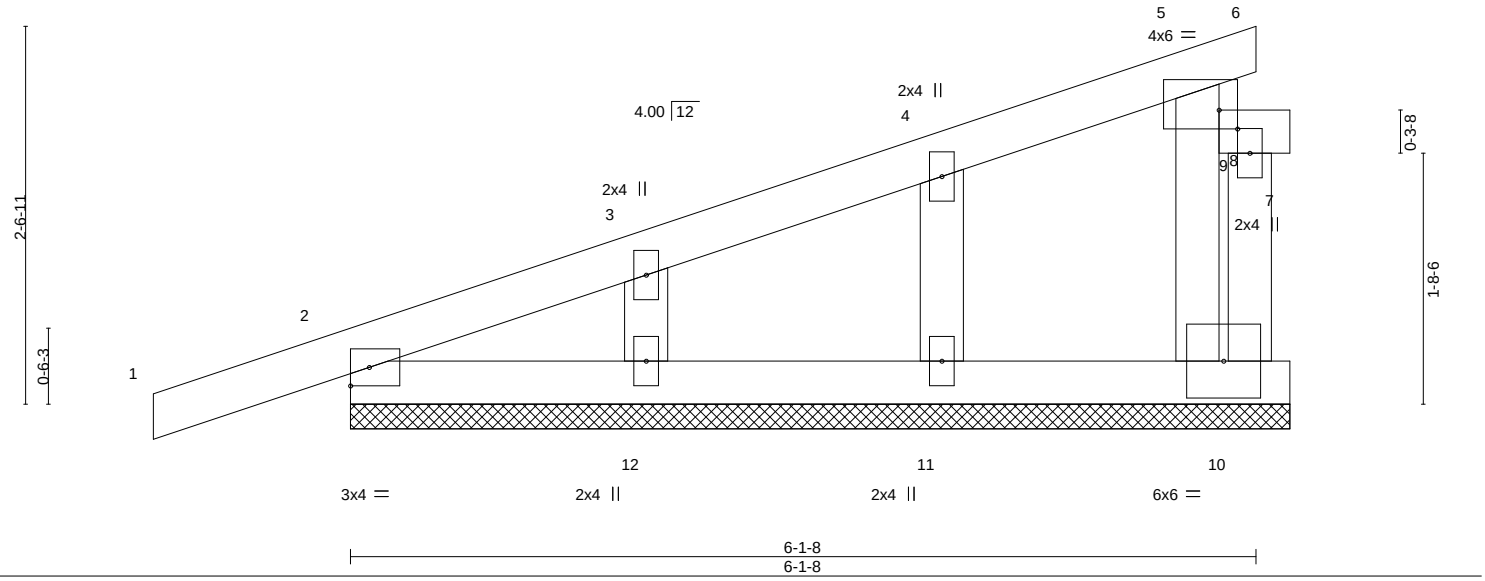
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	M04GE	GABLE	1	1	I73190302
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:12 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-4-0 / 1-4-0 | 6-1-8 / 6-1-8 | 6-4-4 / 0-2-12

Scale = 1:15.6



6-1-8 / 6-1-8

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

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	0.16	Vert(LL)	0.00	5	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	5	n/r	120		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.04	Horz(CT)	-0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 30 lb	FT = 20%

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

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

REACTIONS. All bearings 6-4-4.
(lb) - Max Horz 2=119(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 2, 7, 12, 11 except 10=-160(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 2, 7, 12, 11 except 10=567(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 9-10=-391/491

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-4-0 to 3-0-13, Exterior(2N) 3-0-13 to 6-1-8 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) 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, 7, 12, 11 except (jt=lb) 10=160.
9) Magnitude of user added load(s) on this truss have been applied uniformly across all gravity load cases with no adjustments.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) 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.

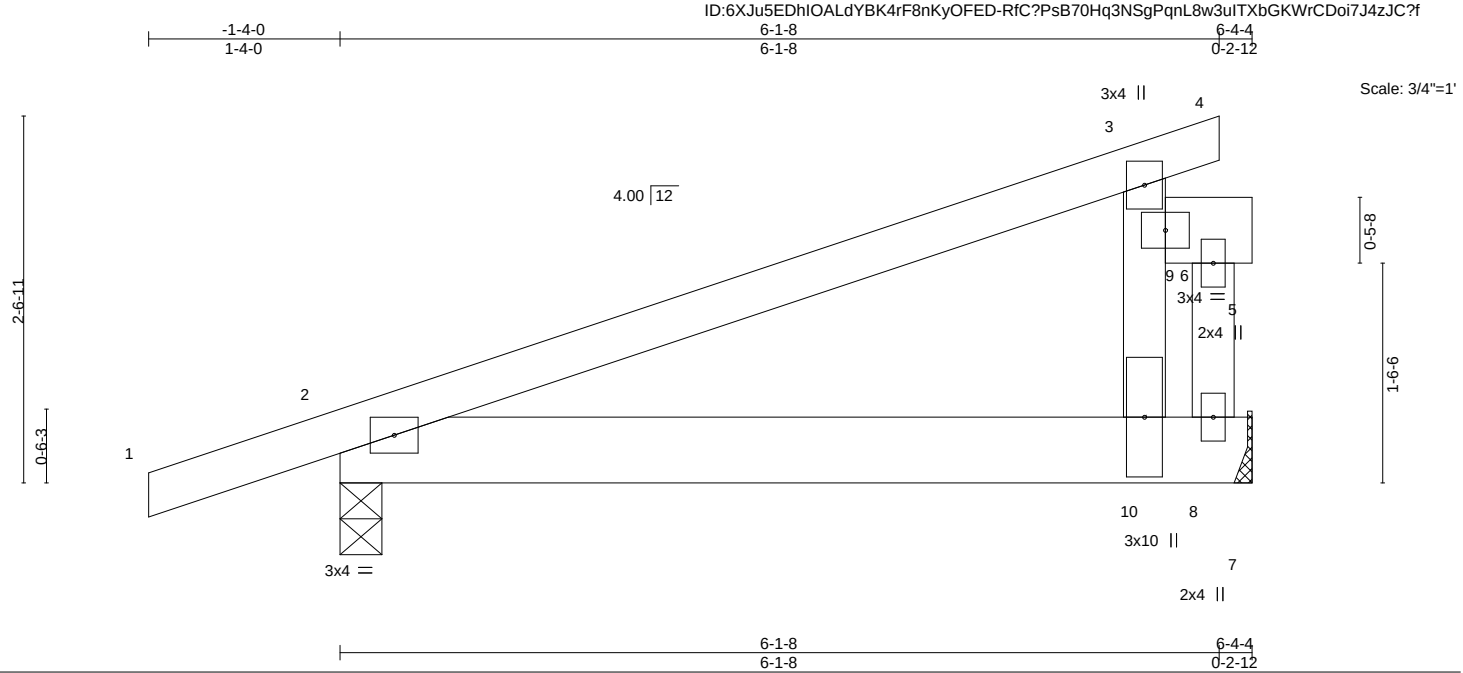
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60, 5-6=-60, 2-10=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 9=-400

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	M05	MONOPITCH	6	1	I73190303
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:12 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.32	Vert(LL)	-0.03	10-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.07	10-13	>981	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-MP		Wind(LL)	0.06	10-13	>999	240	Weight: 32 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 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, except end verticals. Except: 6-0-0 oc bracing: 3-9
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=Mechanical
Max Horz 2=87(LC 8)
Max Uplift 2=-72(LC 8), 8=-76(LC 12)
Max Grav 2=374(LC 1), 8=769(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 9-10=-696/592

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 6-1-8 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) 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) 2, 8.
7) Magnitude of user added load(s) on this truss have been applied uniformly across all gravity load cases with no adjustments.
8) 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, 7-11=-20, 6-9=-130, 5-6=-20
Concentrated Loads (lb)
Vert: 9=-500

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	M06	MONOPITCH	1	2	I73190304
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:13 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

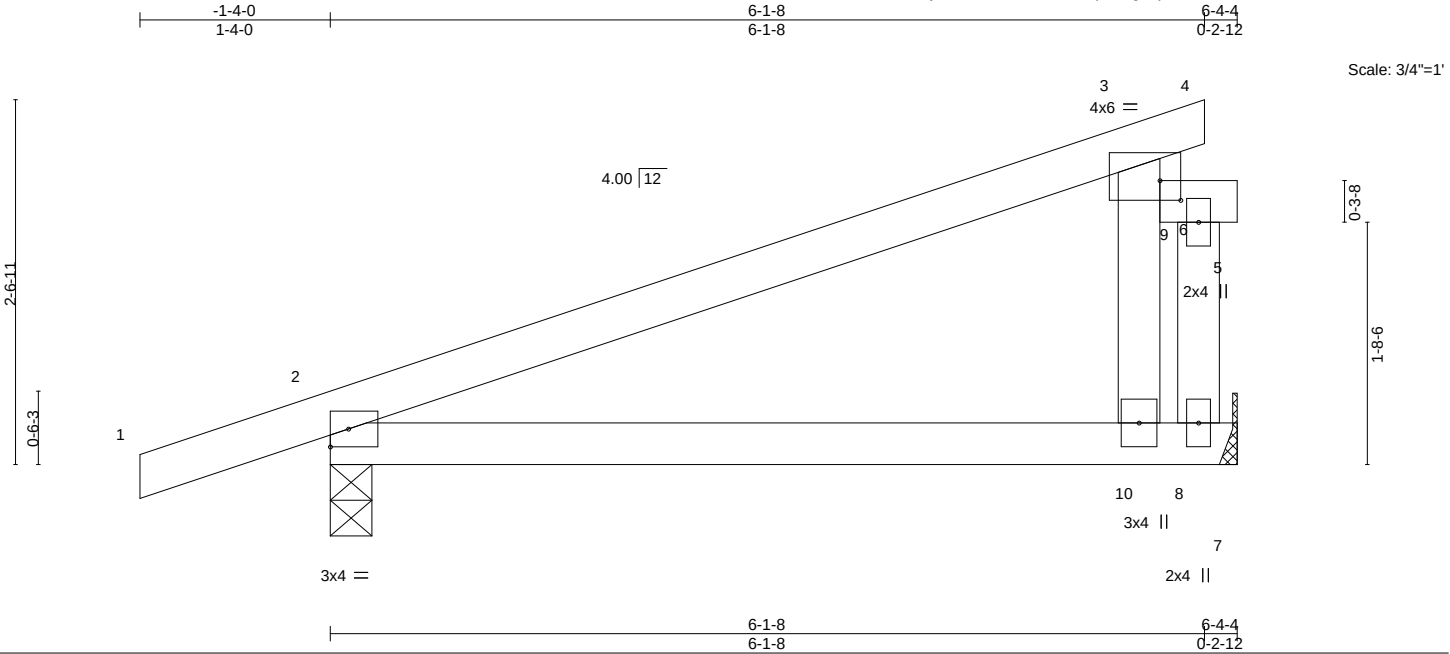


Plate Offsets (X,Y)-- [3:0-1-12,0-1-10]

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	0.23	Vert(LL)	-0.04	10-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.09	10-13	>844	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-MP		Wind(LL)	0.07	10-13	>999	240	Weight: 54 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 8=Mechanical
Max Horz 2=87(LC 8)
Max Uplift 2=-69(LC 8), 8=-54(LC 12)
Max Grav 2=353(LC 1), 8=536(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 9-10=-490/451

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.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 6-1-8 zone;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
9) Magnitude of user added load(s) on this truss have been applied uniformly across all gravity load cases with no adjustments.
10) 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.

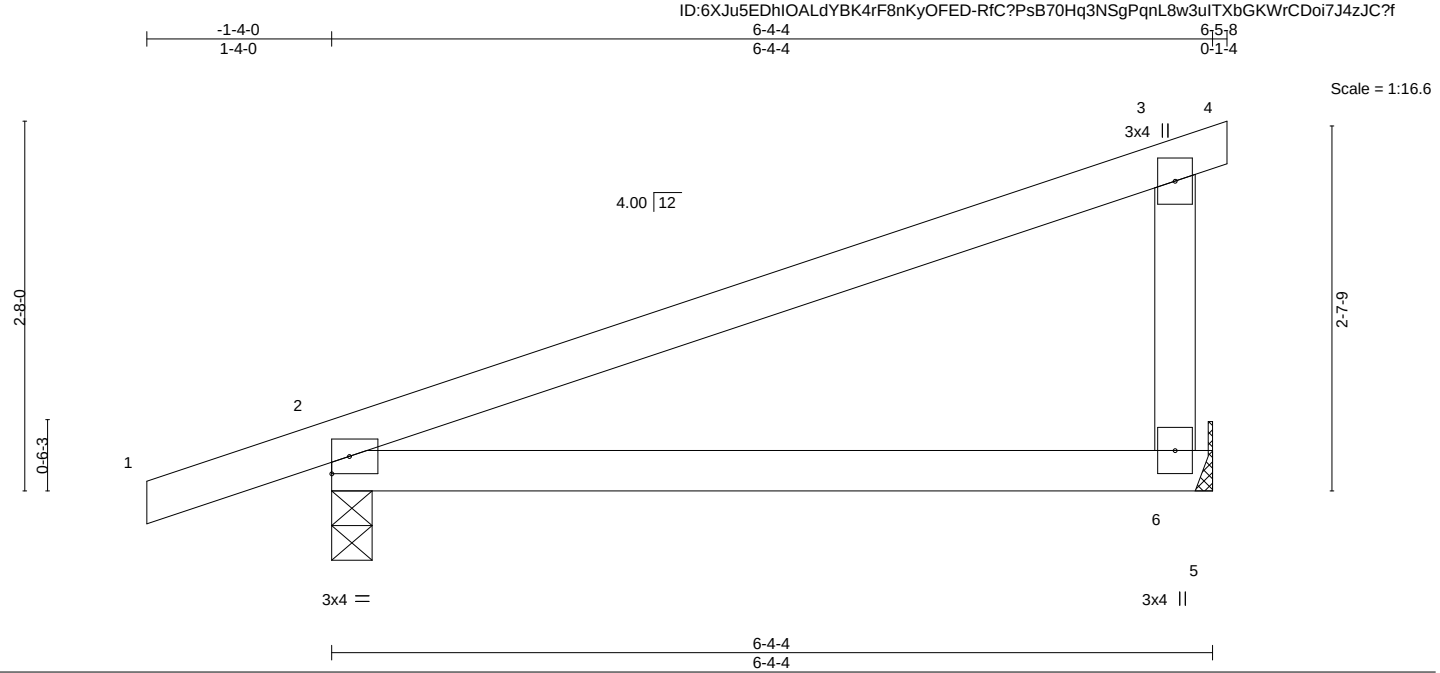
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 7-11=-20, 5-9=-20
Concentrated Loads (lb)
Vert: 9=-300

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	M07	MONOPITCH	3	1	I73190305
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:13 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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)	-0.05	6-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.11	6-9	>659	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.07	6-9	>999	240	Weight: 25 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=91(LC 8)
Max Uplift 6=-41(LC 12), 2=-65(LC 8)
Max Grav 6=263(LC 1), 2=331(LC 1)

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

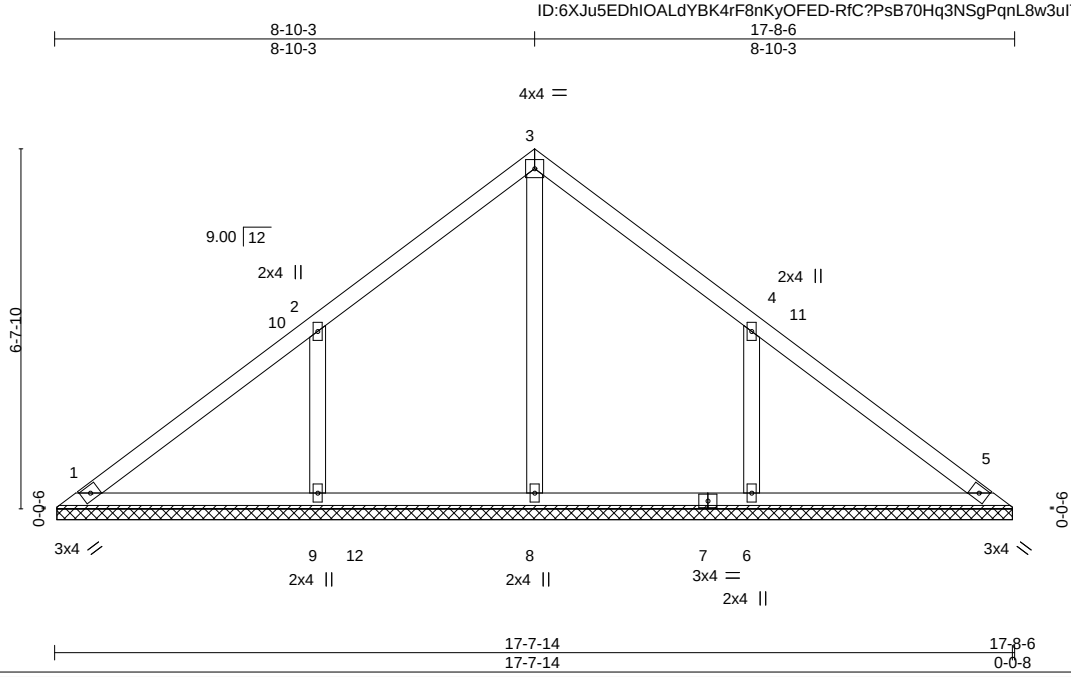
NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 6-5-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
6) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	VC1	Valley	1	1	I73190306
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:13 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 76 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 17-7-6.
(lb) - Max Horz 1=-151(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-140(LC 12), 6=-140(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=397(LC 22), 9=550(LC 19), 6=546(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-335/250, 4-6=-335/250

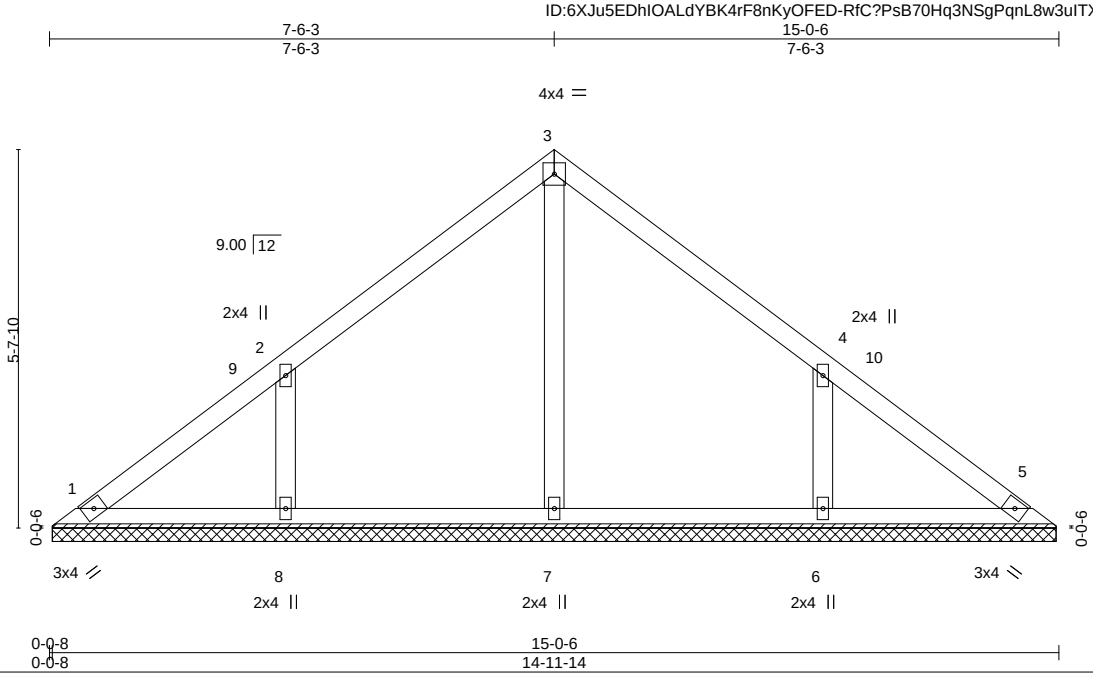
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-5-5 to 4-10-3, Interior(1) 4-10-3 to 8-10-3, Exterior(2R) 8-10-3 to 13-3-0, Interior(1) 13-3-0 to 17-3-1 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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=140, 6=140.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	VC2	Valley	1	1	I73190307
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:14 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 62 lb	FT = 20%

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

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

REACTIONS. All bearings 14-11-6.
(lb) - Max Horz 1=127(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-118(LC 12), 6=-118(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=363(LC 19), 6=363(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-281/245, 4-6=-281/245

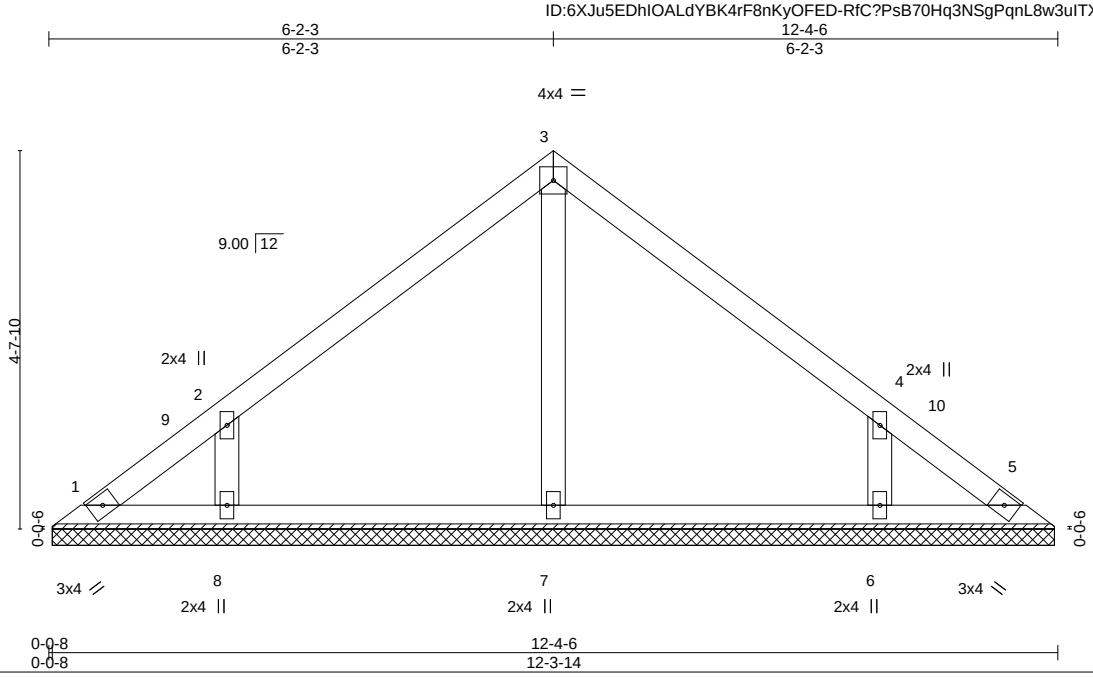
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 7-6-3, Exterior(2R) 7-6-3 to 11-11-0, Interior(1) 11-11-0 to 14-7-1 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 except (jt=lb) 8=118, 6=118.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	VC3	Valley	1	1	I73190308
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:14 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 49 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 12-3-6.
(lb) - Max Horz 1=-103(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-107(LC 12), 6=-107(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=253(LC 1), 8=319(LC 19), 6=319(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-256/262, 4-6=-256/262

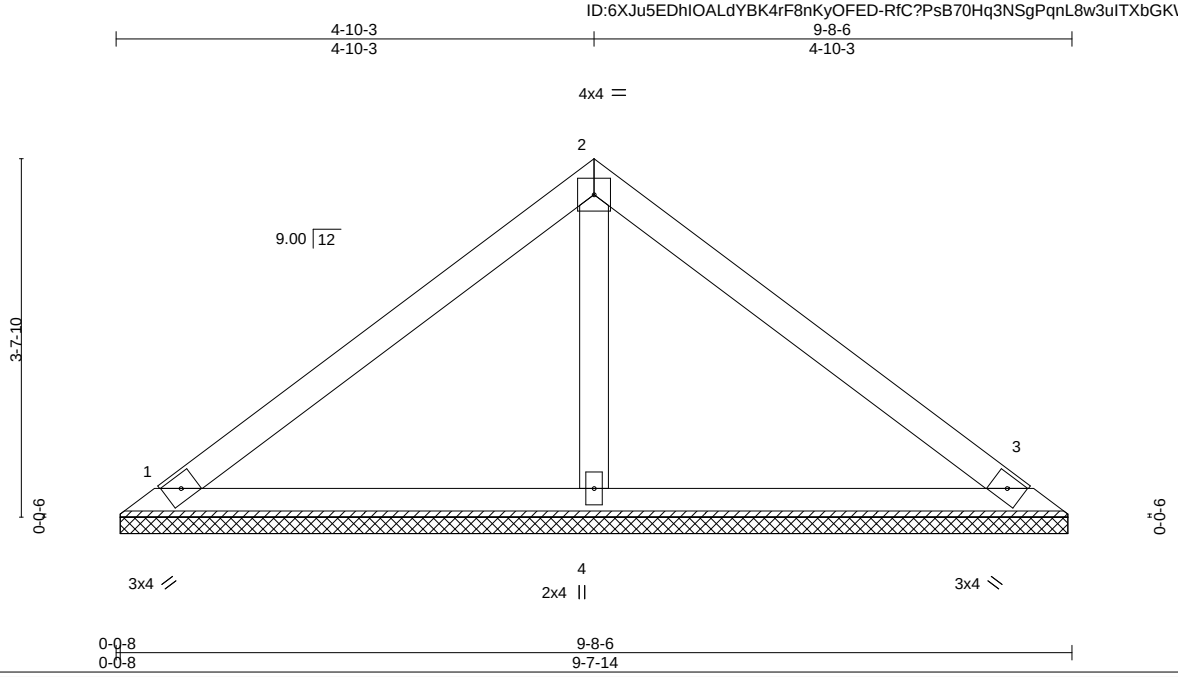
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 6-2-3, Exterior(2R) 6-2-3 to 10-7-0, Interior(1) 10-7-0 to 11-11-1 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=107, 6=107.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	VC4	Valley	1	1	I73190309
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:15 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 35 lb	FT = 20%

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

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

REACTIONS. (size) 1=9-7-6, 3=9-7-6, 4=9-7-6
Max Horz 1=79(LC 11)
Max Uplift 1=-21(LC 12), 3=-29(LC 13)
Max Grav 1=182(LC 1), 3=182(LC 1), 4=342(LC 1)

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

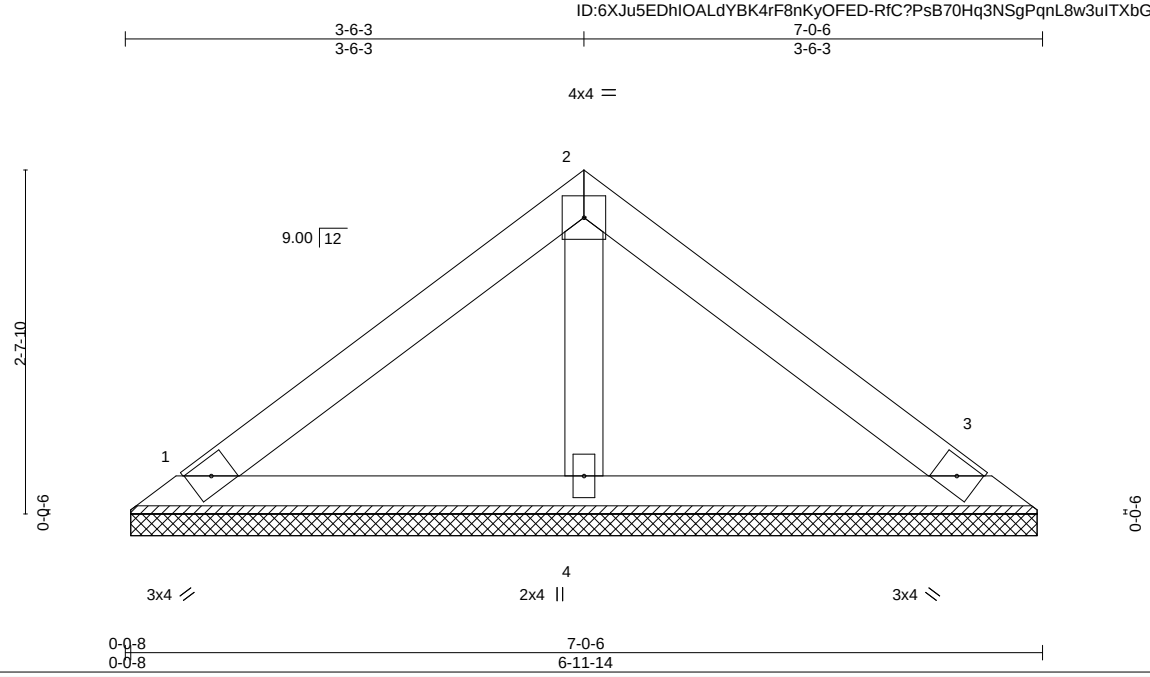
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	VC5	Valley	1	1	I73190310
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:15 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.07	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	IRC2021/TPI2014	Matrix-P							Weight: 25 lb	FT = 20%

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

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

REACTIONS. (size) 1=6-11-6, 3=6-11-6, 4=6-11-6
Max Horz 1=55(LC 9)
Max Uplift 1=-21(LC 12), 3=-27(LC 13)
Max Grav 1=138(LC 1), 3=138(LC 1), 4=216(LC 1)

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

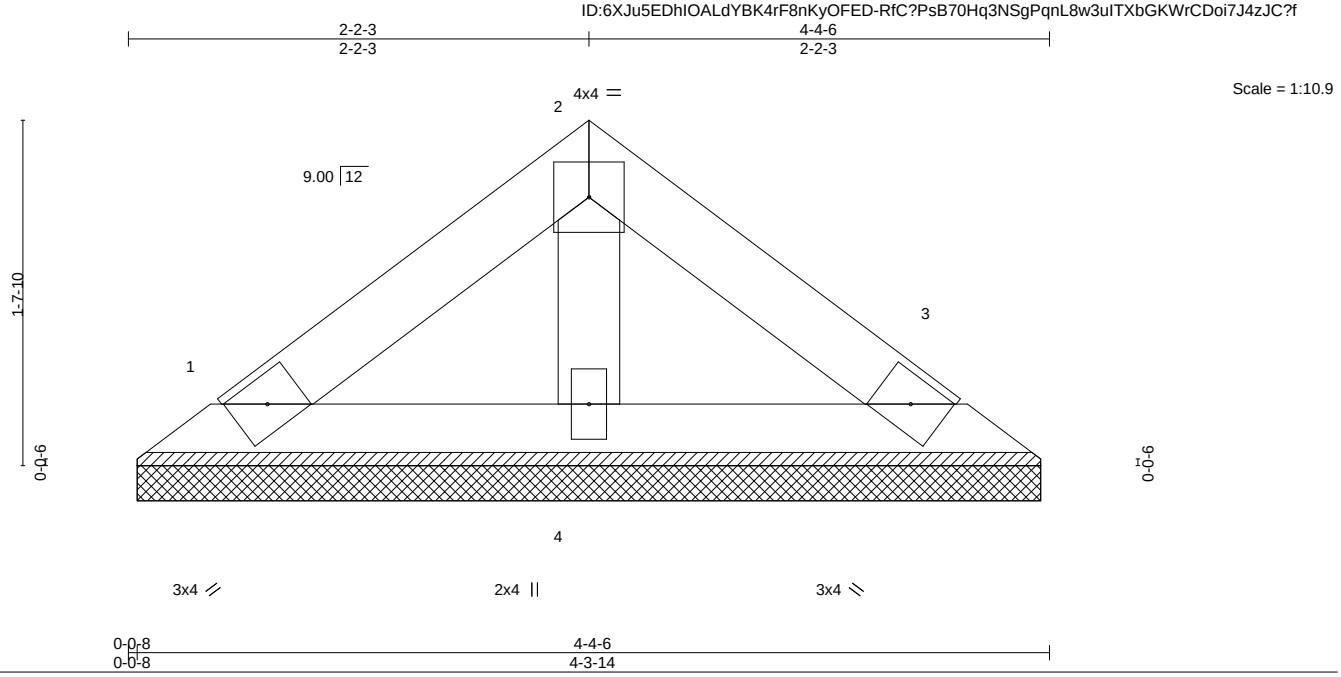
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	VC6	Valley	1	1	I73190311
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:16 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	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	IRC2021/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 4-4-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-3-6, 3=4-3-6, 4=4-3-6
Max Horz 1=31(LC 11)
Max Uplift 1=-12(LC 12), 3=-15(LC 13)
Max Grav 1=78(LC 1), 3=78(LC 1), 4=122(LC 1)

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

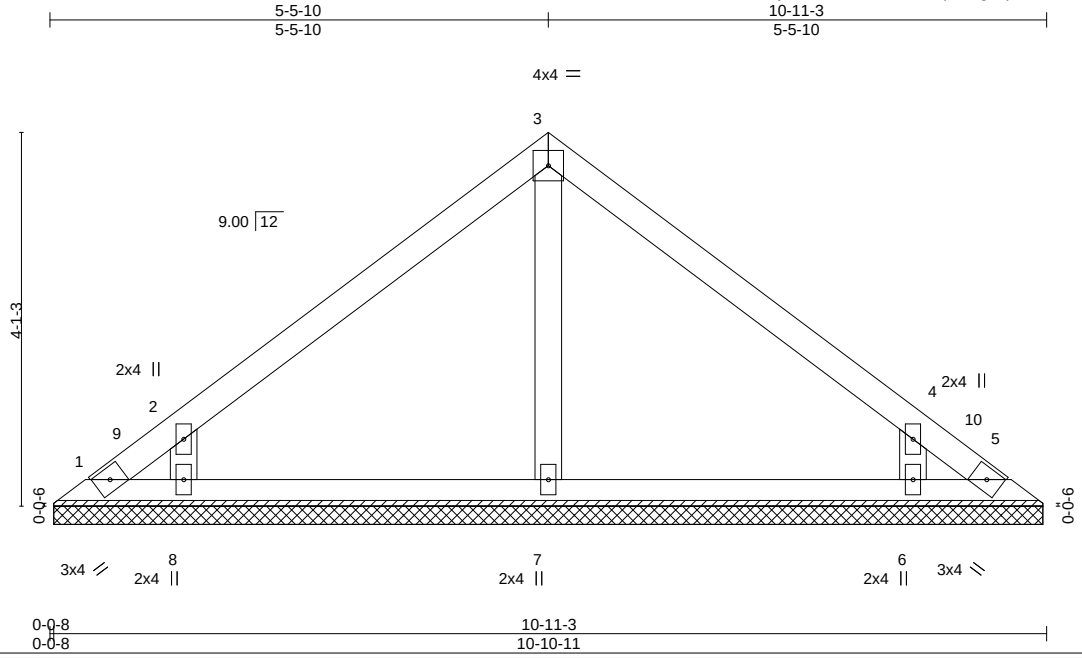
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	VG1	Valley	1	1	I73190312
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:16 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 42 lb	FT = 20%

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

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

REACTIONS. All bearings 10-10-3.
(lb) - Max Horz 1=-90(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-116(LC 12), 6=-116(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=339(LC 19), 6=339(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-281/311, 4-6=-280/311

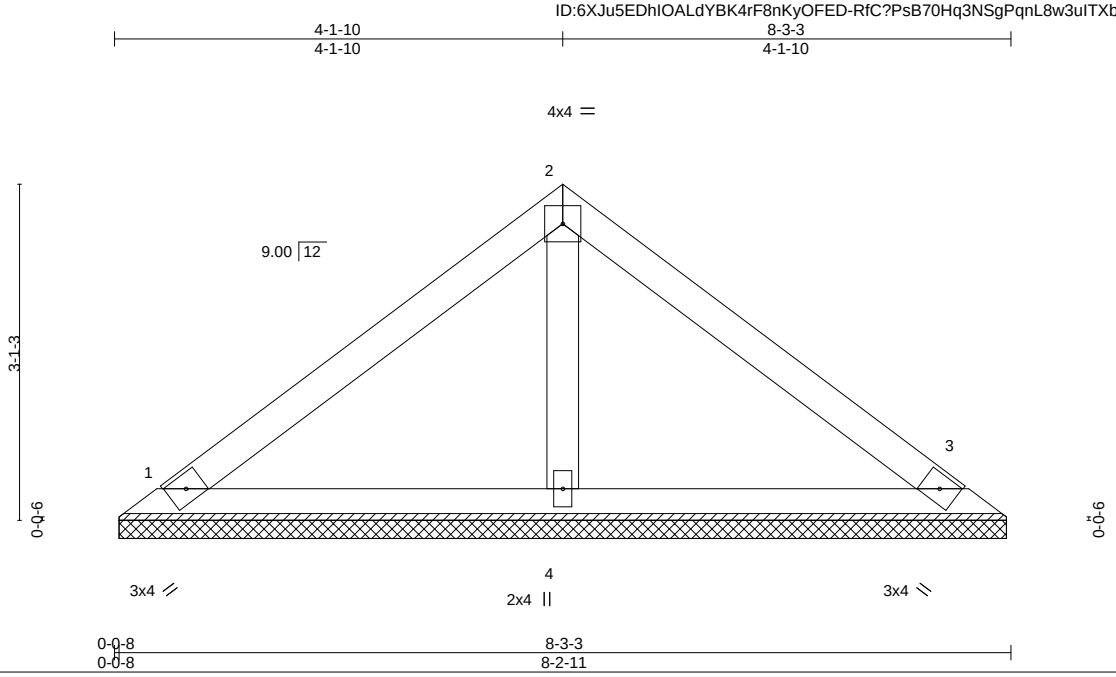
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 5-5-10, Exterior(2R) 5-5-10 to 9-10-6, Interior(1) 9-10-6 to 10-5-14 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, 5 except (jt=lb) 8=116, 6=116.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	VG2	Valley	1	1	I73190313
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:16 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	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: 30 lb	FT = 20%

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

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

REACTIONS. (size) 1=8-2-3, 3=8-2-3, 4=8-2-3
Max Horz 1=-66(LC 10)
Max Uplift 1=-26(LC 12), 3=-32(LC 13)
Max Grav 1=166(LC 1), 3=166(LC 1), 4=259(LC 1)

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

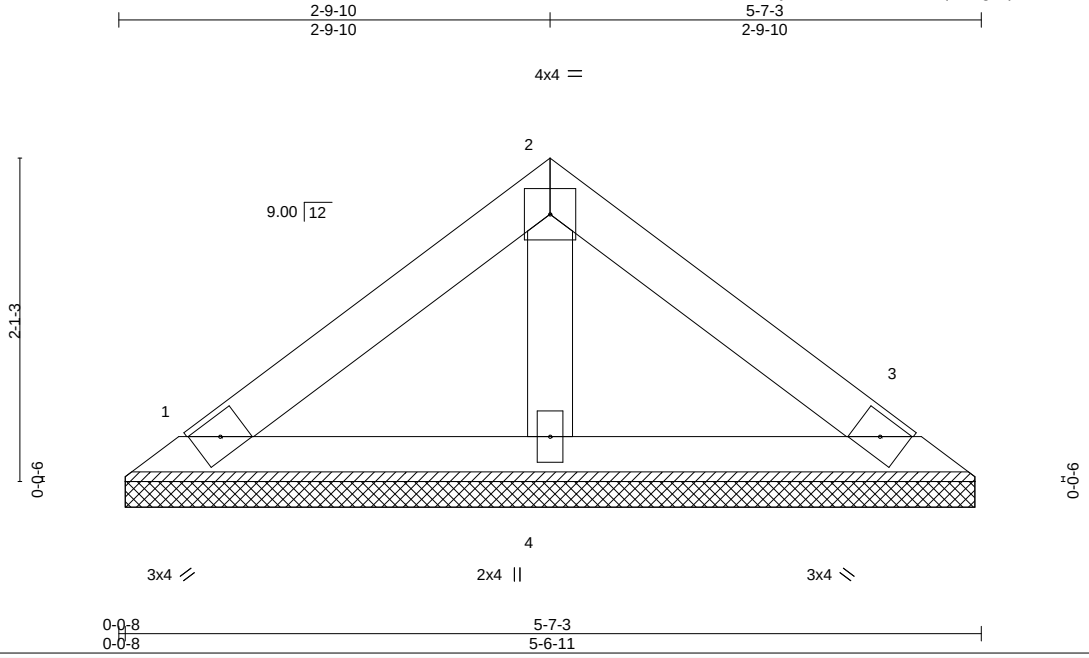
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	VG3	Valley	1	1	I73190314
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:17 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	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	IRC2021/TPI2014	Matrix-P							Weight: 19 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 5-7-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-6-3, 3=5-6-3, 4=5-6-3
Max Horz 1=-42(LC 8)
Max Uplift 1=-16(LC 12), 3=-20(LC 13)
Max Grav 1=106(LC 1), 3=106(LC 1), 4=166(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=130mph (3-second gust) Vasd=103mph; 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) 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.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2410	VG4	Valley	1	1	I73190315
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:16:17 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

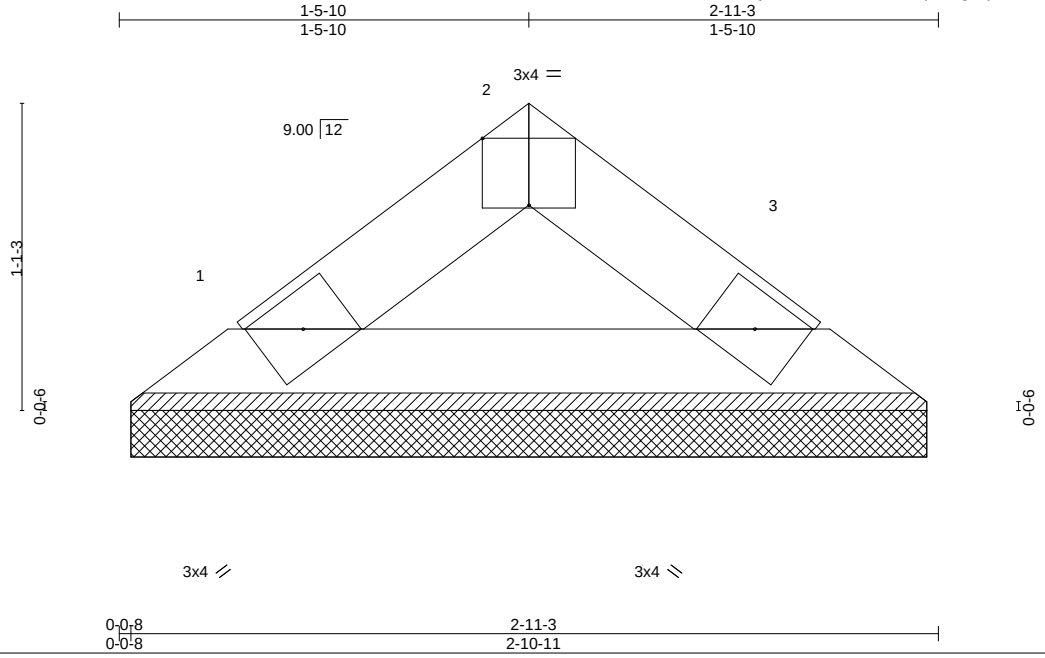


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-P							Weight: 8 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-11-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-10-3, 3=2-10-3
Max Horz 1=-19(LC 8)
Max Uplift 1=-4(LC 12), 3=-4(LC 13)
Max Grav 1=82(LC 1), 3=82(LC 1)

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

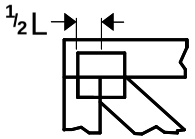
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.

May 5,2025

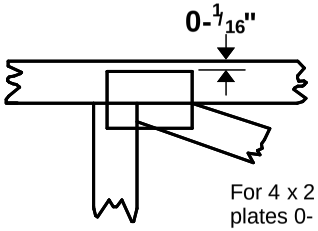
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

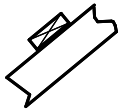
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

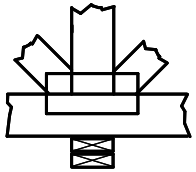
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

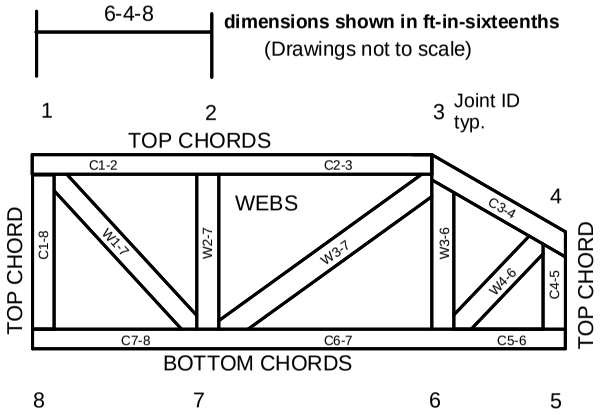


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

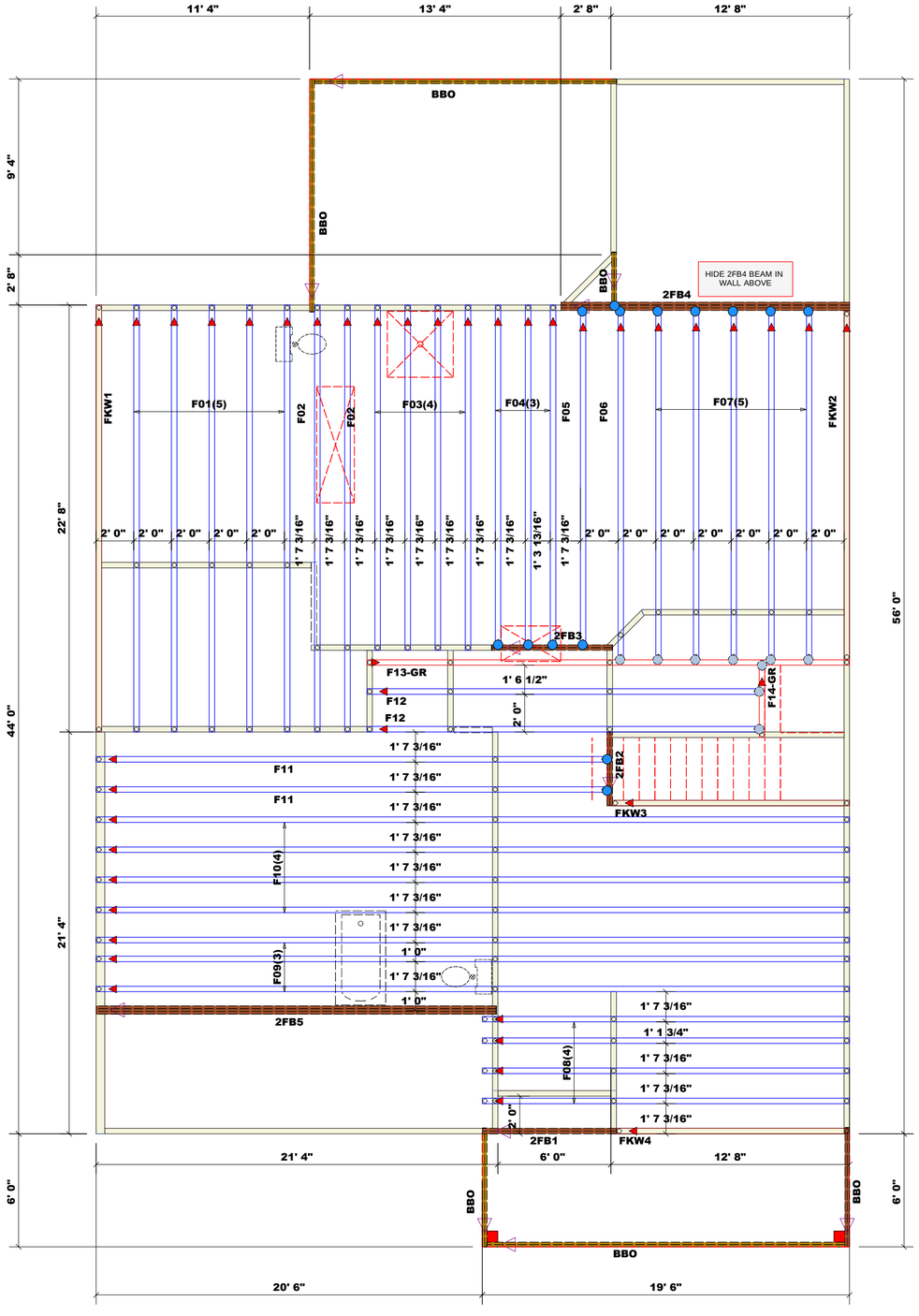
ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

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.



Truss Placement Plan
SCALE: NTS

Plumbing Drop Notes
1. Plumbing drop locations shown are NOT exact. 2. Contractor to verify ALL plumbing drop locations prior to setting Floor Trusses. 3. Adjust spacing as needed not to exceed 19.2"oc U.O.N.

Dimension Notes
1. All exterior wall to wall dimensions are to face of wall unless noted otherwise 2. All interior wall dimensions are to face of stud unless noted otherwise 3. All exterior wall to truss dimensions are to face of stud unless noted otherwise

All Walls Shown Are Considered Load Bearing

▲ = Indicates Left End of Truss (Reference Engineered Truss Drawing) Do Not Erect Trusses Backwards

WALL SCHEDULE

- 1st Floor Walls
- 2nd Floor Walls
- Non-Bearing Walls
- Garage Walls Dropped

Products				
PlotID	Length	Product	Plies	Net Qty
2FB1	8' 0"	1-3/4"x 14" LVL Kerto-S	2	2
2FB3	7' 0"	1-3/4"x 14" LVL Kerto-S	2	2
2FB2	4' 0"	1-3/4"x 14" LVL Kerto-S	2	2
2FB4	16' 0"	1-3/4"x 16" LVL Kerto-S	3	3
2FB5	22' 0"	1-3/4"x 23-7/8" LVL Kerto-S	3	3

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
●	HUS410	USP	14	NA	16d/3-1/2"	16d/3-1/2"
●	MSH422	USP	9	Varies	10d/3"	10d/3"

▲ = Indicates Left End of Truss
(Reference Engineered Truss Drawing)
Do NOT Erect Truss Backwards

COMTECH
ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature Johnnie Baggett

Johnnie Baggett

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (lbs TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (lbs TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (lbs TO)	REQ'D STUDS FOR (4) PLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

BUILDER	New Home Inc
JOB NAME	Lot 39 Duncan's Creek
PLAN	The Apex - Georgian - Face
SEAL DATE	Seal Date
QUOTE #	Quote #
JOB #	J0525-2413
CITY / CO.	Lillington / Harnett
ADDRESS	697 Beacon Hill Road
MODEL	2nd Floor
DATE REV.	5/2/25
DRAWN BY	Johnnie Baggett
SALES REP.	Johnnie Baggett

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.
These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0525-2413
Lot 39 Duncan's Creek

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: I73190347 thru I73190364

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

North Carolina COA: C-0844

May 5,2025

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 39 Duncan's Creek
J0525-2413	F01	FLOOR	5	1	I73190347
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:00 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

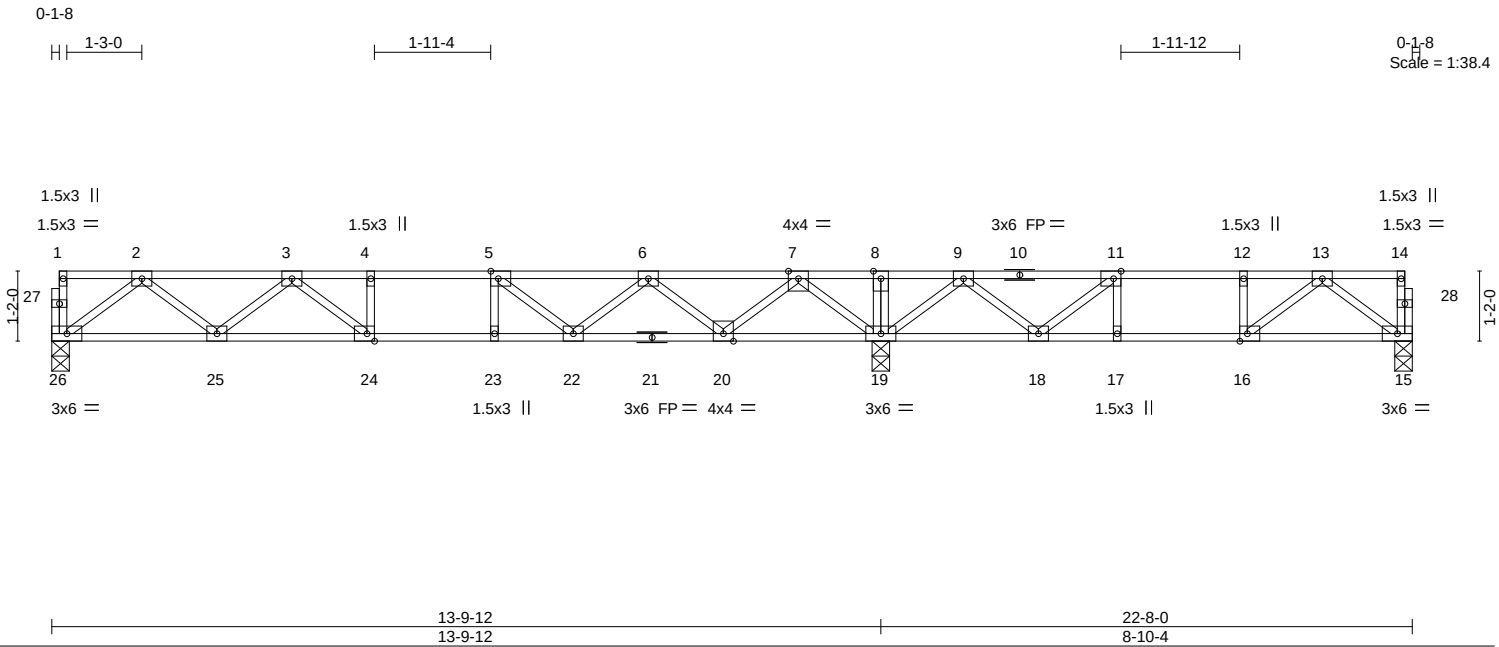


Plate Offsets (X,Y)-- [5:0-1-8,Edge], [11:0-1-8,Edge], [16:0-1-8,Edge], [24:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	-0.10	24-25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.53	Vert(CT)	-0.13	24-25	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.02	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 112 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 26=0-3-8, 15=0-3-8, 19=0-3-8
Max Grav 26=673(LC 10), 15=395(LC 4), 19=1485(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1312/0, 3-4=-1983/0, 4-5=-1983/0, 5-6=-1682/0, 6-7=-724/117, 7-8=0/1341, 8-9=0/1341, 9-11=-352/446, 11-12=-679/150, 12-13=-679/150
BOT CHORD 25-26=0/830, 24-25=0/1763, 23-24=0/1983, 22-23=0/1983, 20-22=0/1364, 19-20=-343/61, 18-19=-685/16, 17-18=-150/679, 16-17=-150/679, 15-16=-17/437
WEBS 2-26=-1039/0, 2-25=0/628, 3-25=-587/0, 3-24=-24/387, 7-19=-1299/0, 7-20=0/910, 6-20=-875/0, 6-22=0/471, 5-22=-553/0, 13-15=-544/21, 13-16=-171/310, 9-19=-915/0, 9-18=0/578, 11-18=-635/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F02	FLOOR	2	1	I73190348
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:01 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

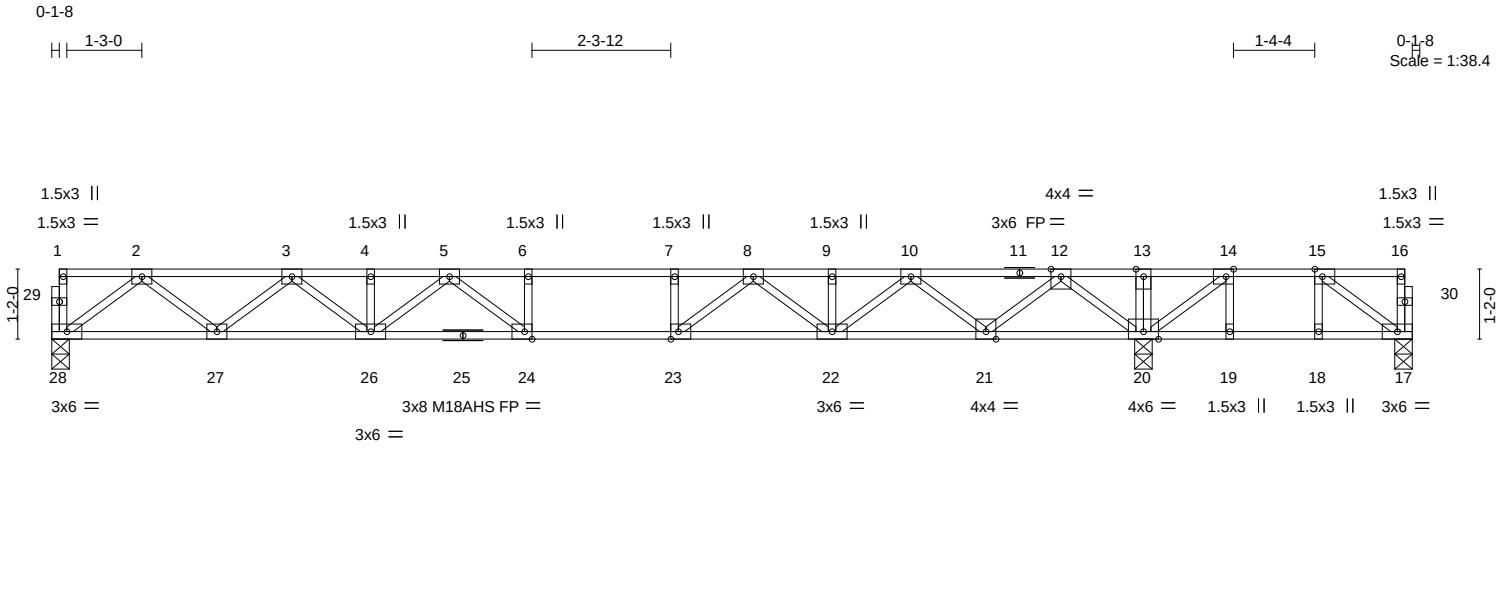


Plate Offsets (X,Y)-- [14:0-1-8,Edge], [15:0-1-8,Edge], [23:0-1-8,Edge], [24:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.23	24-26	>924	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.76	Vert(CT)	-0.32	24-26	>671	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.05	20	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 115 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 28=0-3-8, 17=0-3-8, 20=0-3-8
Max Uplift 17=-212(LC 3)
Max Grav 28=728(LC 10), 17=112(LC 4), 20=1315(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1524/0, 3-4=-2515/0, 4-5=-2515/0, 5-6=-2867/0, 6-7=-2867/0, 7-8=-2867/0, 8-9=-2053/0, 9-10=-2053/0, 10-12=-778/0, 12-13=0/1159, 13-14=0/1159, 14-15=-36/493
BOT CHORD 27-28=0/911, 26-27=0/2116, 24-26=0/2780, 23-24=0/2867, 22-23=0/2482, 21-22=0/1503, 19-20=-493/36, 18-19=-493/36, 17-18=-493/36
WEBS 2-28=-1141/0, 2-27=0/798, 3-27=-770/0, 3-26=0/510, 12-20=-1382/0, 12-21=0/1003, 10-21=-952/0, 10-22=0/710, 8-22=-555/0, 8-23=0/682, 5-26=-338/0, 5-24=-133/400, 7-23=-313/0, 15-17=-40/615, 14-20=-942/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 212 lb uplift at joint 17.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F03	FLOOR	4	1	I73190349
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:01 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

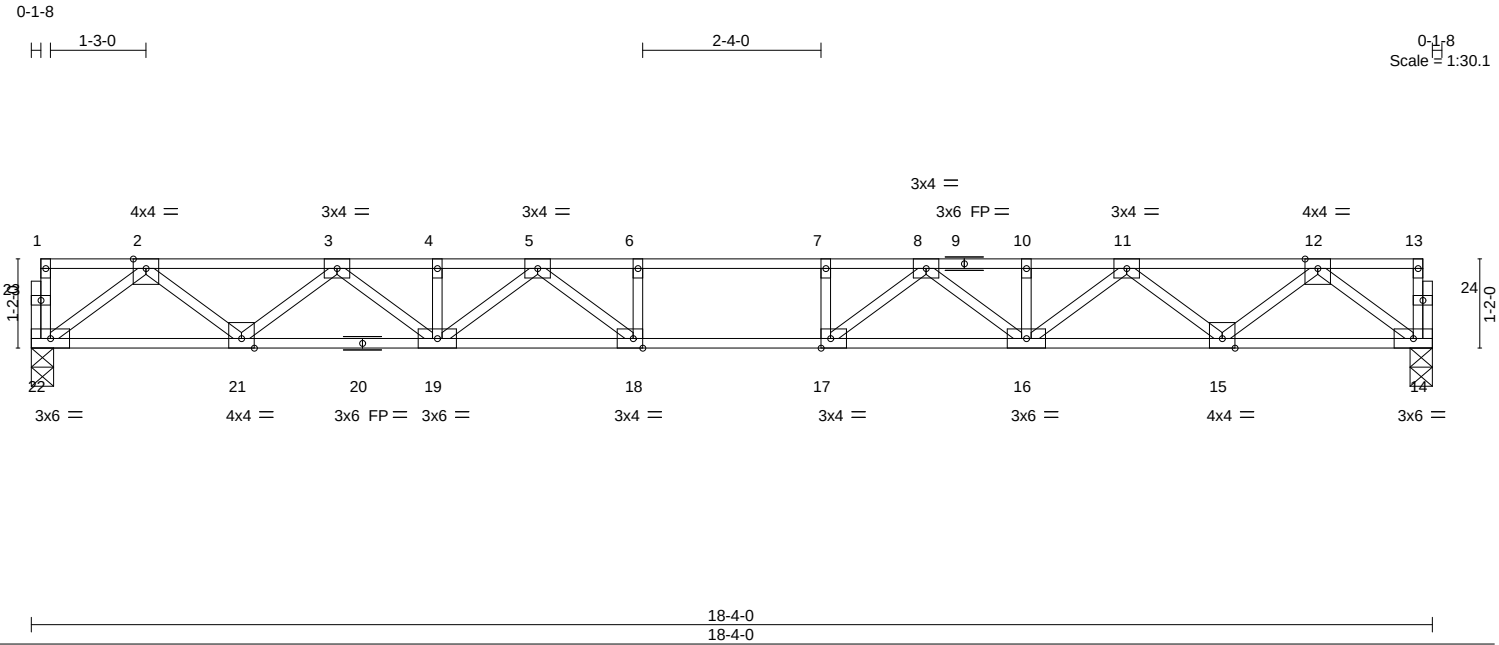


Plate Offsets (X,Y)-- [17:0-1-8,Edge], [18:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.54	Vert(LL)	-0.25	17-18	>866	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.72	Vert(CT)	-0.34	17-18	>629	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.06	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 92 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 22=0-3-8, 14=0-3-8
Max Grav 22=790(LC 1), 14=790(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1682/0, 3-4=-2819/0, 4-5=-2819/0, 5-6=-3405/0, 6-7=-3405/0, 7-8=-3405/0, 8-10=-2819/0, 10-11=-2819/0, 11-12=-1682/0
BOT CHORD 21-22=0/994, 19-21=0/2343, 18-19=0/3167, 17-18=0/3405, 16-17=0/3167, 15-16=0/2343, 14-15=0/994
WEBS 2-22=-1245/0, 2-21=0/896, 3-21=-861/0, 3-19=0/608, 12-14=-1245/0, 12-15=0/896, 11-15=-861/0, 11-16=0/608, 5-19=-444/0, 5-18=-32/585, 8-16=-444/0, 8-17=-32/585, 7-17=-273/0, 6-18=-273/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F04	Floor	3	1	I73190350
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:02 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

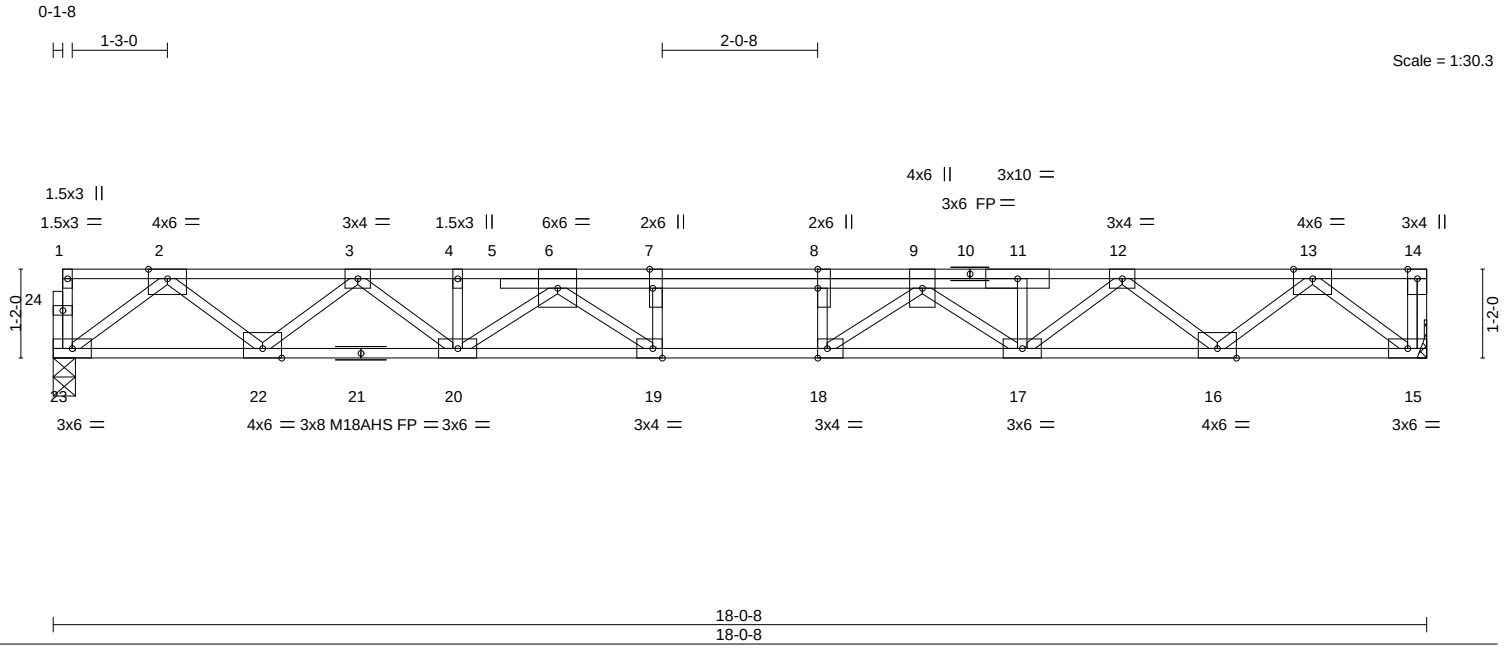


Plate Offsets (X,Y)-- [7:0-3-0,Edge], [8:0-3-0,0-0-0], [18:0-1-8,Edge], [19:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.17	Vert(LL)	-0.25	18-19	>871	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.80	Vert(CT)	-0.34	18-19	>633	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.07	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 101 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 23=0-3-8, 15=Mechanical
Max Grav 23=972(LC 1), 15=979(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2064/0, 3-4=-3437/0, 4-6=-3438/0, 6-7=-4366/0, 7-8=-4366/0, 8-9=-4366/0, 9-11=-3458/0, 11-12=-3458/0, 12-13=-2063/0
BOT CHORD 22-23=0/1221, 20-22=0/2873, 19-20=0/4000, 18-19=0/4366, 17-18=0/4066, 16-17=0/2869, 15-16=0/1223
WEBS 2-23=-1529/0, 2-22=0/1097, 3-22=-1053/0, 3-20=0/720, 6-20=-702/0, 6-19=-4/779, 7-19=-421/3, 13-15=-1535/0, 13-16=0/1093, 12-16=-1049/0, 12-17=0/752, 9-17=-758/0, 9-18=-73/733, 8-18=-392/45

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F05	FLOOR	1	1	I73190351
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:02 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

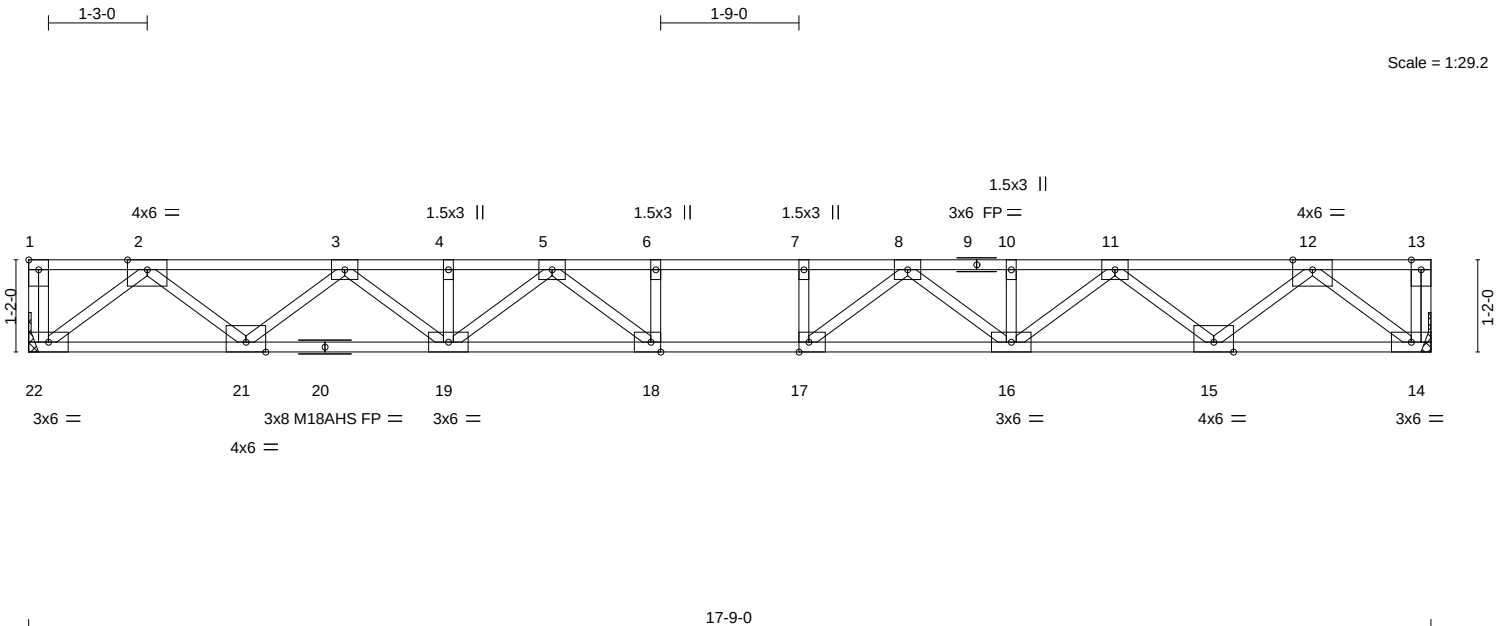


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [17:0-1-8,Edge], [18:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.33	Vert(LL)	-0.25	17-18	>841	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.34	17-18	>612	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 91 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 22=Mechanical, 14=Mechanical
Max Grav 22=963(LC 1), 14=963(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2023/0, 3-4=-3369/0, 4-5=-3369/0, 5-6=-4004/0, 6-7=-4004/0, 7-8=-4004/0, 8-10=-3369/0, 10-11=-3369/0, 11-12=-2023/0
BOT CHORD 21-22=0/1202, 19-21=0/2811, 18-19=0/3763, 17-18=0/4004, 16-17=0/3763, 15-16=0/2811, 14-15=0/1202
WEBS 2-22=-1508/0, 2-21=0/1069, 3-21=-1026/0, 3-19=0/712, 12-14=-1508/0, 12-15=0/1069, 11-15=-1026/0, 11-16=0/712, 8-16=-504/0, 8-17=-85/626, 5-19=-504/0, 5-18=-85/626, 6-18=-296/3, 7-17=-296/3

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F06	Floor	1	1	I73190352
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:02 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

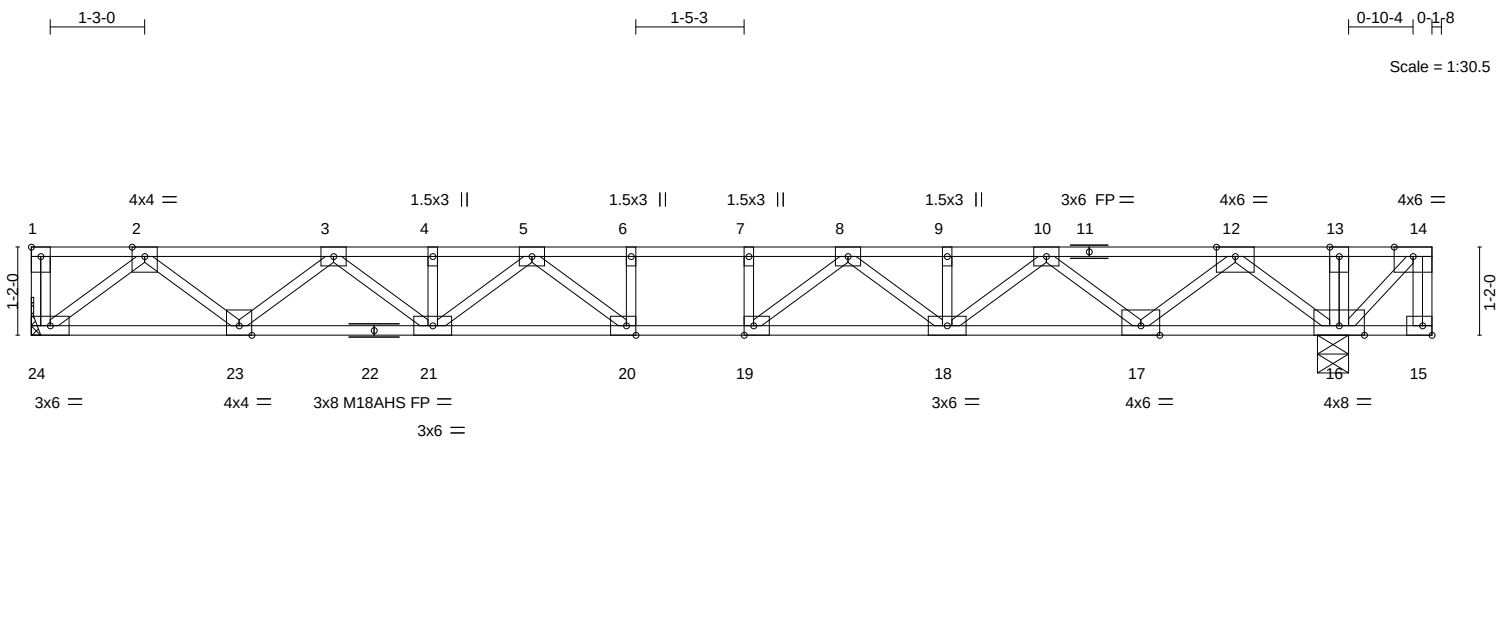


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [19:0-1-8,Edge], [20:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.67	Vert(LL)	-0.26	19-20	>803	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.34	20	>615	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	NO	WB	0.56	Horz(CT)	0.06	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 98 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-18,16-17.

REACTIONS. (size) 24=Mechanical, 16=0-4-15
Max Grav 24=919(LC 3), 16=2562(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1914/0, 3-4=-3151/0, 4-5=-3151/0, 5-6=-3650/0, 6-7=-3650/0, 7-8=-3650/0, 8-9=-2977/193, 9-10=-2977/193, 10-12=-1610/775, 12-13=0/1525, 13-14=0/1524
BOT CHORD 23-24=0/1144, 21-23=0/2651, 20-21=0/3496, 19-20=0/3650, 18-19=0/3390, 17-18=-464/2411, 16-17=-1117/782
WEBS 2-24=-1435/0, 2-23=0/1002, 3-23=-960/0, 3-21=0/638, 12-16=-1582/0, 12-17=0/1185, 10-17=-1148/0, 10-18=0/831, 8-18=-641/0, 8-19=-34/803, 5-21=-440/33, 5-20=-345/492, 7-19=-351/0, 14-16=-2087/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 700 lb down at 18-4-15, and 700 lb down at 18-4-15 on top chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 15-24=-10, 1-14=-100
Concentrated Loads (lb)
Vert: 14=-1400(F=-700, B=-700)

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F07	Floor	5	1	I73190353
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:03 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

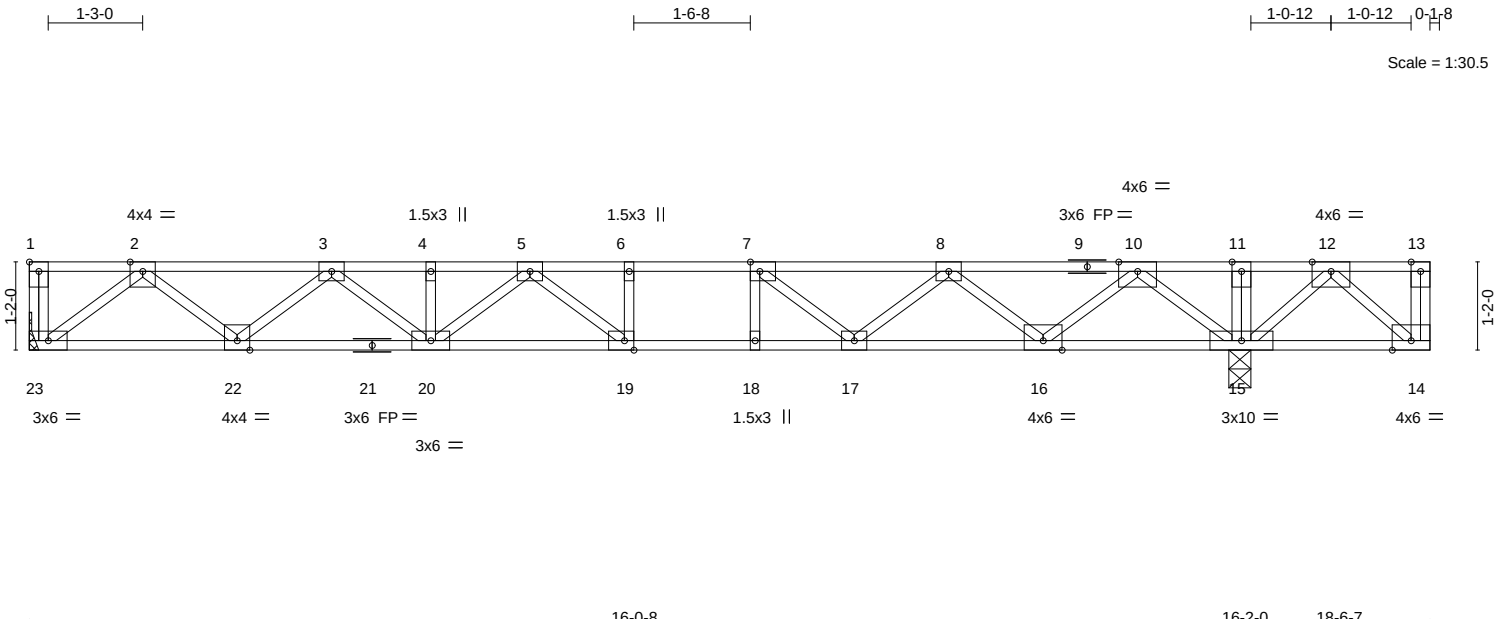


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [7:0-1-8,Edge], [19:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.21	19-20	>926	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.28	19-20	>686	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.54	Horz(CT)	0.05	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 97 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 23=Mechanical, 15=0-3-8
Max Grav 23=841(LC 3), 15=1960(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 13-14=-747/0, 2-3=-1718/0, 3-4=-2771/0, 4-5=-2771/0, 5-6=-3013/126, 6-7=-3013/126, 7-8=-2533/482, 8-10=-1374/1079, 10-11=0/1863, 11-12=0/1863
BOT CHORD 22-23=0/1042, 20-22=0/2368, 19-20=0/3016, 18-19=-126/3013, 17-18=-126/3013, 16-17=-768/2101, 15-16=-1428/614, 14-15=-855/0
WEBS 10-15=-1532/0, 10-16=0/1123, 8-16=-1076/0, 8-17=0/766, 7-17=-979/0, 7-18=-48/289, 2-23=-1307/0, 2-22=0/881, 3-22=-845/0, 3-20=-30/516, 5-20=-312/118, 5-19=-518/328, 12-14=0/1139, 12-15=-1340/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 14-23=-10, 1-13=-100
Concentrated Loads (lb)
Vert: 13=-700

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F08	FLOOR	4	1	I73190354
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:03 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

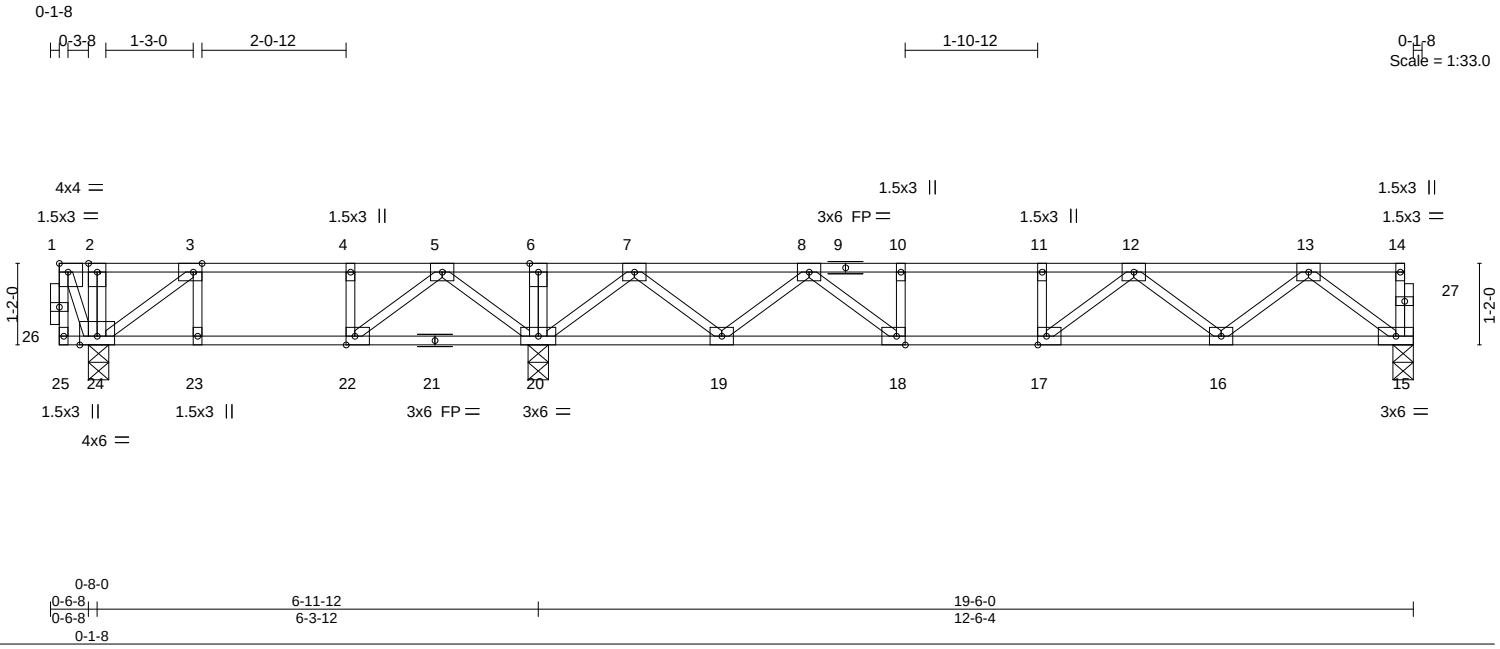


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [3:0-1-8,Edge], [17:0-1-8,Edge], [18:0-1-8,Edge], [22:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	-0.07	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.43	Vert(CT)	-0.10	16-17	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.01	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 100 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 24=0-3-8, 20=0-3-8, 15=0-3-8
Max Grav 24=1476(LC 3), 20=954(LC 4), 15=497(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=0/624, 2-3=0/625, 3-4=-112/565, 4-5=-112/565, 5-6=0/856, 6-7=0/856, 7-8=-650/222, 8-10=-1339/0, 10-11=-1339/0, 11-12=-1339/0, 12-13=-953/0
BOT CHORD 23-24=-565/112, 22-23=-565/112, 20-22=-623/0, 19-20=-390/218, 18-19=-57/1070, 17-18=0/1339, 16-17=0/1255, 15-16=0/611
WEBS 3-24=-455/0, 5-20=-477/0, 5-22=0/349, 7-20=-931/0, 7-19=0/602, 8-19=-604/0, 13-15=-765/0, 13-16=0/445, 12-16=-393/0, 8-18=0/489, 1-24=-1313/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 15-25=-8, 1-14=-80
Concentrated Loads (lb)
Vert: 1=-1152

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F09	FLOOR	3	1	I73190355
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:04 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

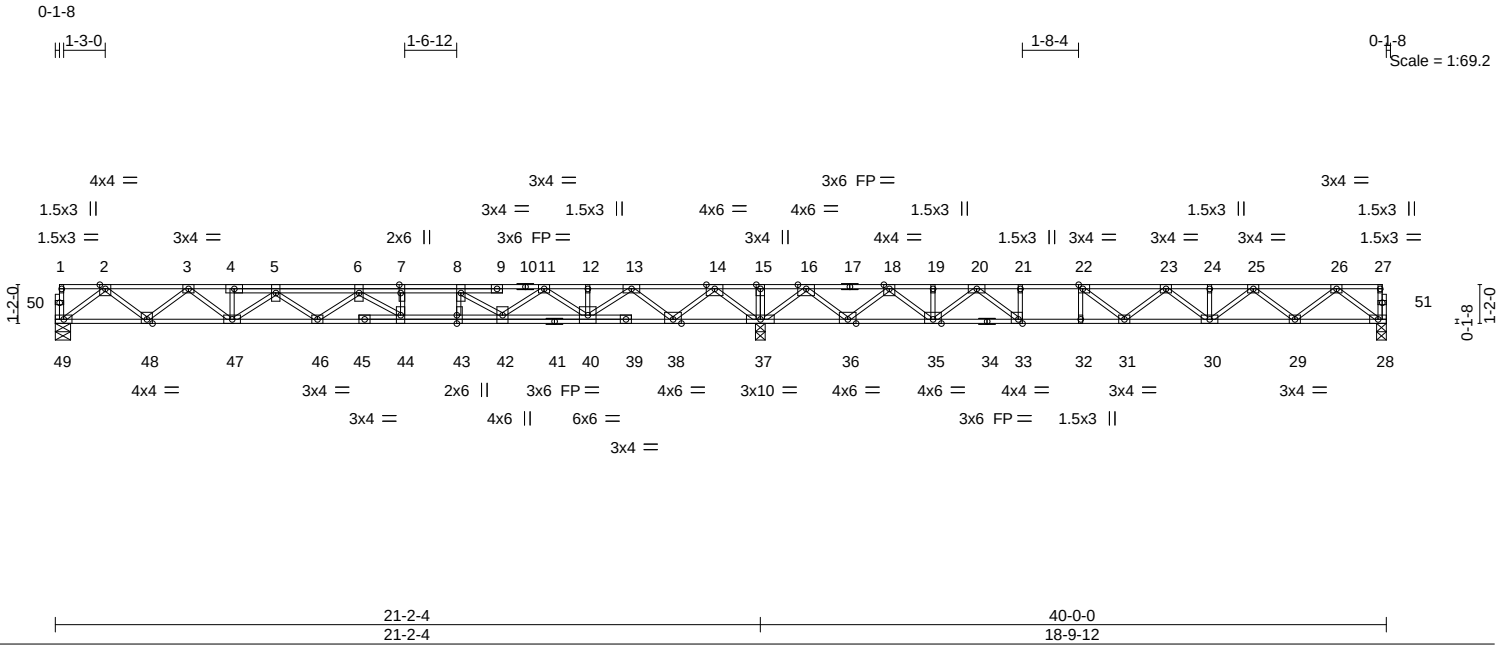


Plate Offsets (X,Y)-- [7:0-3-0,Edge], [22:0-1-8,Edge], [33:0-1-8,Edge], [43:0-3-0,0-0-0]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.81	Vert(LL)	-0.28	44-46	>898	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.99	Vert(CT)	-0.36	44-46	>697	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.05	28	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 224 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (size) 49=0-5-8, 28=0-3-8, 37=0-3-8
Max Grav 49=802(LC 3), 28=697(LC 4), 37=2123(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1712/0, 3-4=-2879/0, 4-5=-2884/0, 5-6=-3609/0, 6-7=-3733/0, 7-8=-3733/0, 8-11=-3019/180, 11-12=-1746/671, 12-13=-1746/671, 13-14=0/1410, 14-15=0/3526, 15-16=0/3526, 16-18=0/1573, 18-19=-1399/931, 19-20=-1399/931, 20-21=-2506/283, 21-22=-2506/283, 22-23=-2646/29, 23-24=-2343/0, 24-25=-2343/0, 25-26=-1451/0
BOT CHORD 48-49=0/1009, 47-48=0/2390, 46-47=0/3429, 44-46=0/3824, 43-44=0/3733, 42-43=0/3733, 40-42=-412/2441, 38-40=-985/888, 37-38=-2153/0, 36-37=-2257/0, 35-36=-1240/746, 33-35=-651/1950, 32-33=-283/2506, 31-32=-283/2506, 30-31=0/2649, 29-30=0/2001, 28-29=0/872
WEBS 2-49=-1264/0, 2-48=0/915, 3-48=-883/0, 3-47=0/624, 14-37=-1723/0, 14-38=0/1369, 13-38=-1339/0, 13-40=0/1142, 11-40=-943/0, 11-42=0/794, 8-42=-1103/0, 5-47=-686/0, 6-46=-273/86, 6-44=-581/128, 8-43=0/336, 26-28=-1092/0, 26-29=0/754, 25-29=-715/0, 25-30=-42/436, 16-37=-1592/0, 16-36=0/1244, 18-36=-1193/0, 18-35=0/959, 20-35=-839/0, 20-33=0/1051, 23-30=-391/37, 23-31=-273/23, 22-31=0/574, 22-32=-307/0, 21-33=-406/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x6 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Required 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F10	Floor	4	1	I73190356
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:05 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

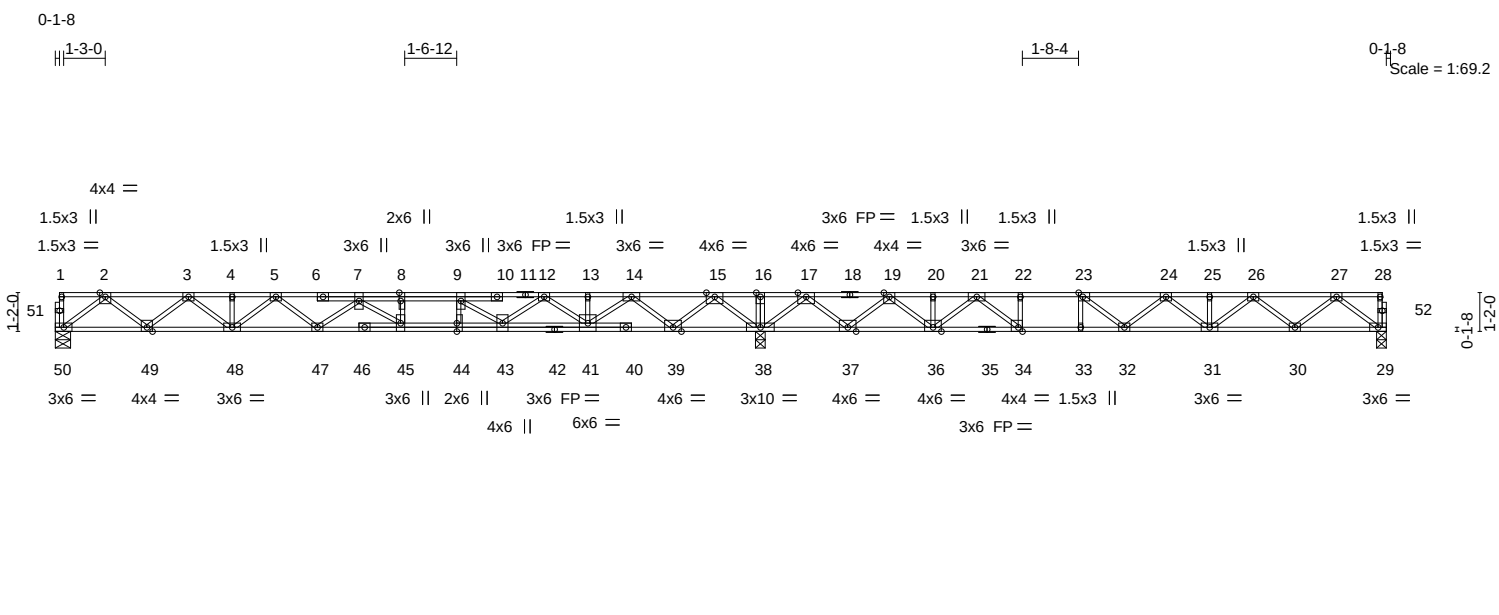


Plate Offsets (X,Y)-- [8:0-3-0,Edge], [23:0-1-8,Edge], [34:0-1-8,Edge], [44:0-3-0,0-0-0]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.82	Vert(LL)	-0.29	45-47	>874	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.37	45-47	>677	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.05	29	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 220 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (size) 50=0-5-8, 29=0-3-8, 38=0-3-8
Max Grav 50=801(LC 3), 29=697(LC 4), 38=2126(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1709/0, 3-4=-2876/0, 4-5=-2876/0, 5-7=-3468/0, 7-8=-3724/0, 8-9=-3724/0, 9-12=-3001/183, 12-13=-1726/673, 13-14=-1726/673, 14-15=0/1426, 15-16=0/3549, 16-17=0/3549, 17-19=0/1596, 19-20=-1397/950, 20-21=-1397/950, 21-22=-2504/297, 22-23=-2504/297, 23-24=-2645/40, 24-25=-2342/0, 25-26=-2342/0, 26-27=-1451/0
BOT CHORD 49-50=0/1008, 48-49=0/2384, 47-48=0/3227, 45-47=0/3745, 44-45=0/3724, 43-44=0/3724, 41-43=-414/2421, 39-41=-988/866, 38-39=-2174/0, 37-38=-2278/0, 36-37=-1261/743, 34-36=-668/1948, 33-34=-297/2504, 32-33=-297/2504, 31-32=0/2648, 30-31=0/2000, 29-30=0/872
WEBS 2-50=-1262/0, 2-49=0/912, 3-49=-879/0, 3-48=0/628, 5-48=-448/0, 5-47=-22/308, 7-47=-357/77, 7-45=-525/166, 15-38=-1725/0, 15-39=0/1370, 14-39=-1341/0, 14-41=0/1144, 12-41=-944/0, 12-43=0/796, 9-43=-1110/0, 9-44=0/342, 27-29=-1092/0, 27-30=0/754, 26-30=-715/0, 26-31=-44/436, 17-38=-1595/0, 17-37=0/1246, 19-37=-1195/0, 19-36=0/961, 21-36=-842/0, 21-34=0/1054, 22-34=-407/0, 24-31=-391/39, 24-32=-275/20, 23-32=0/577, 23-33=-309/0

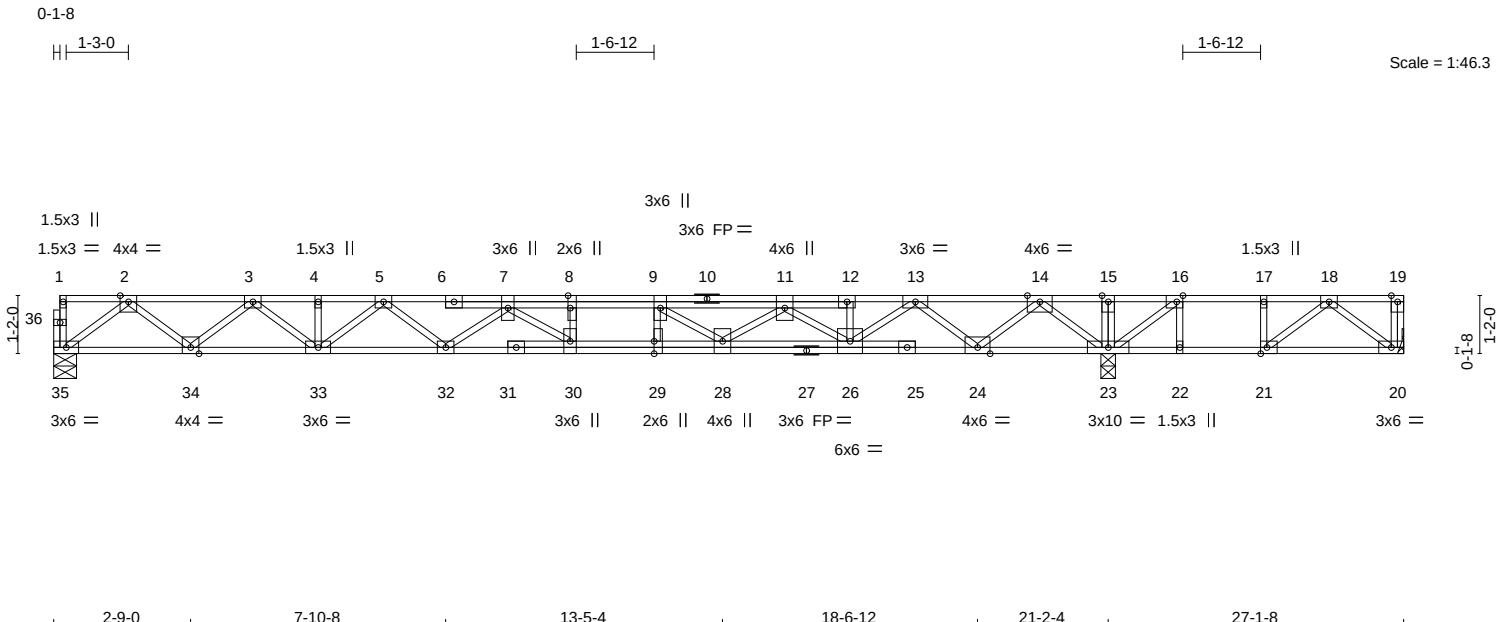
NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Required 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F11	FLOOR	2	1	I73190357
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:06 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



2-9-0	7-10-8	13-5-4	18-6-12	21-2-4	27-1-8
2-9-0	5-1-8	5-6-12	5-1-8	2-7-8	5-11-4

Plate Offsets (X,Y)-- [8:0-3-0,Edge], [16:0-1-8,Edge], [21:0-1-8,Edge], [29:0-3-0,0-0-0]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.29	30	>872	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.88	Vert(CT)	-0.40	30-32	>634	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.06	23	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 160 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat) *Except* 10-19: 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 20=Mechanical, 35=0-5-8, 23=0-3-8
Max Uplift 20=-238(LC 3)
Max Grav 20=187(LC 4), 35=841(LC 10), 23=1561(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1810/0, 3-4=-3079/0, 4-5=-3079/0, 5-7=-3763/0, 7-8=-4225/0, 8-9=-4225/0, 9-11=-3712/0, 11-12=-2360/0, 12-13=-2355/0, 13-14=-610/0, 14-15=0/1770, 15-16=0/1770, 16-17=-98/938, 17-18=-98/938
BOT CHORD 34-35=0/1061, 33-34=0/2535, 32-33=0/3476, 30-32=0/4119, 29-30=0/4225, 28-29=0/4225, 26-28=0/3228, 24-26=0/1541, 23-24=-461/0, 22-23=-938/98, 21-22=-938/98, 20-21=-340/173
WEBS 2-35=-1329/0, 14-23=-1649/0, 2-34=0/975, 14-24=0/1233, 3-34=-943/0, 13-24=-1228/0, 3-33=0/695, 13-26=0/1023, 5-33=-507/0, 11-26=-1065/0, 5-32=0/370, 11-28=0/651, 7-32=-456/0, 9-28=-788/0, 7-30=-203/481, 18-20=-217/427, 16-23=-1260/0, 18-21=-763/0, 17-21=0/343

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 238 lb uplift at joint 20.
6) Required 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F12	Floor	2	1	I73190358
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:07 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

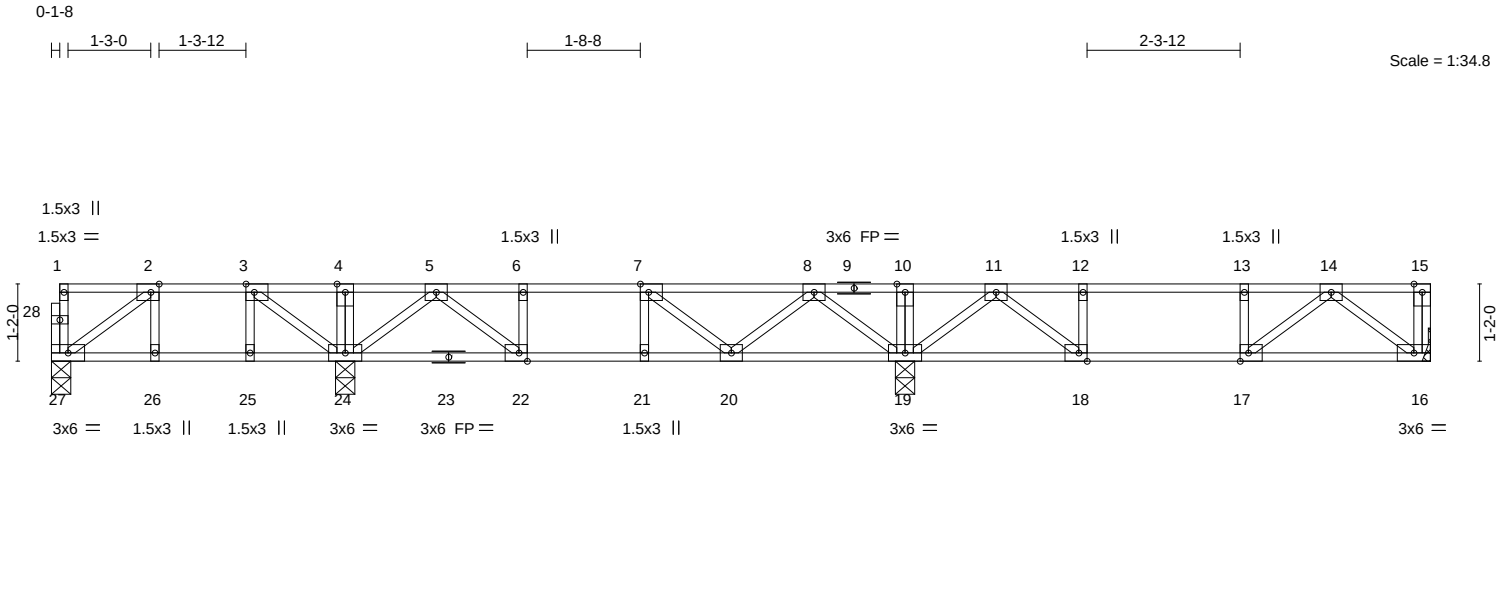


Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge], [7:0-1-8,Edge], [17:0-1-8,Edge], [18:0-1-8,Edge], [22:0-1-8,Edge]

LOADING (psf)		**SPACING-**	1-7-3	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	40.0	Plate Grip DOL	1.00	TC	0.29	Vert(LL)	-0.03	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.24	Vert(CT)	-0.04	16-17	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 106 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 19-20,18-19.

REACTIONS. All bearings 0-3-8 except (jt=length) 16=Mechanical.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 27 except 24=551(LC 16), 19=792(LC 11), 16=324(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 5-6=-636/0, 6-7=-636/0, 7-8=-491/0, 8-10=0/394, 10-11=0/394, 11-12=-542/0, 12-13=-542/0, 13-14=-542/0
BOT CHORD 22-24=0/365, 21-22=0/636, 20-21=0/636, 19-20=-11/298, 18-19=-102/259, 17-18=0/542, 16-17=0/351
WEBS 3-24=-292/0, 8-19=-603/0, 5-24=-475/0, 8-20=0/293, 5-22=0/346, 7-20=-253/0, 11-19=-528/0, 11-18=0/440, 14-16=-440/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F13-GR	Floor Girder	1	1	I73190359
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:07 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

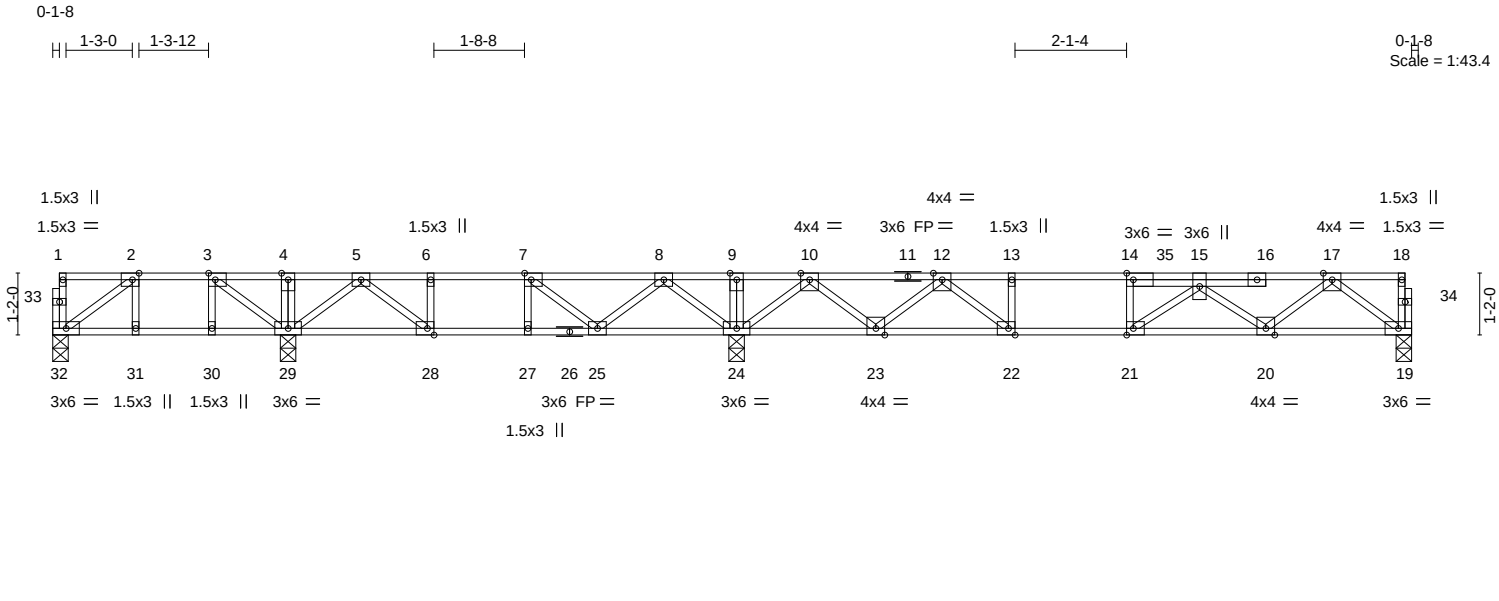


Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge], [7:0-1-8,Edge], [14:0-1-8,Edge], [21:0-1-8,Edge], [22:0-1-8,Edge], [28:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	1.00	Vert(LL)	-0.15	20-21	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.20	20-21	>739	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.03	19	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 132 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. All bearings 0-3-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 32 except 29=673(LC 3), 24=1425(LC 11), 19=795(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 5-6=-666/93, 6-7=-666/93, 7-8=-422/258, 8-9=0/947, 9-10=0/947, 10-12=-1051/0, 12-13=-2275/0, 13-14=-2275/0, 14-15=-2290/0, 15-17=-1674/0
BOT CHORD 28-29=-72/389, 27-28=-93/666, 25-27=-93/666, 24-25=-409/149, 23-24=-50/408, 22-23=0/1711, 21-22=0/2275, 20-21=0/2322, 19-20=0/976
WEBS 3-29=-414/0, 8-24=-825/0, 5-29=-558/0, 8-25=0/445, 5-28=-27/360, 7-25=-449/0, 10-24=-1319/0, 10-23=0/876, 12-23=-909/0, 17-19=-1221/0, 17-20=0/899, 15-20=-831/0, 15-21=-275/96, 12-22=0/899, 13-22=-410/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 315 lb down at 20-11-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 19-32=-10, 1-18=-100
Concentrated Loads (lb)
Vert: 35=-251(F)

May 5,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	F14-GR	Floor Girder	1	1	I73190360
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:08 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

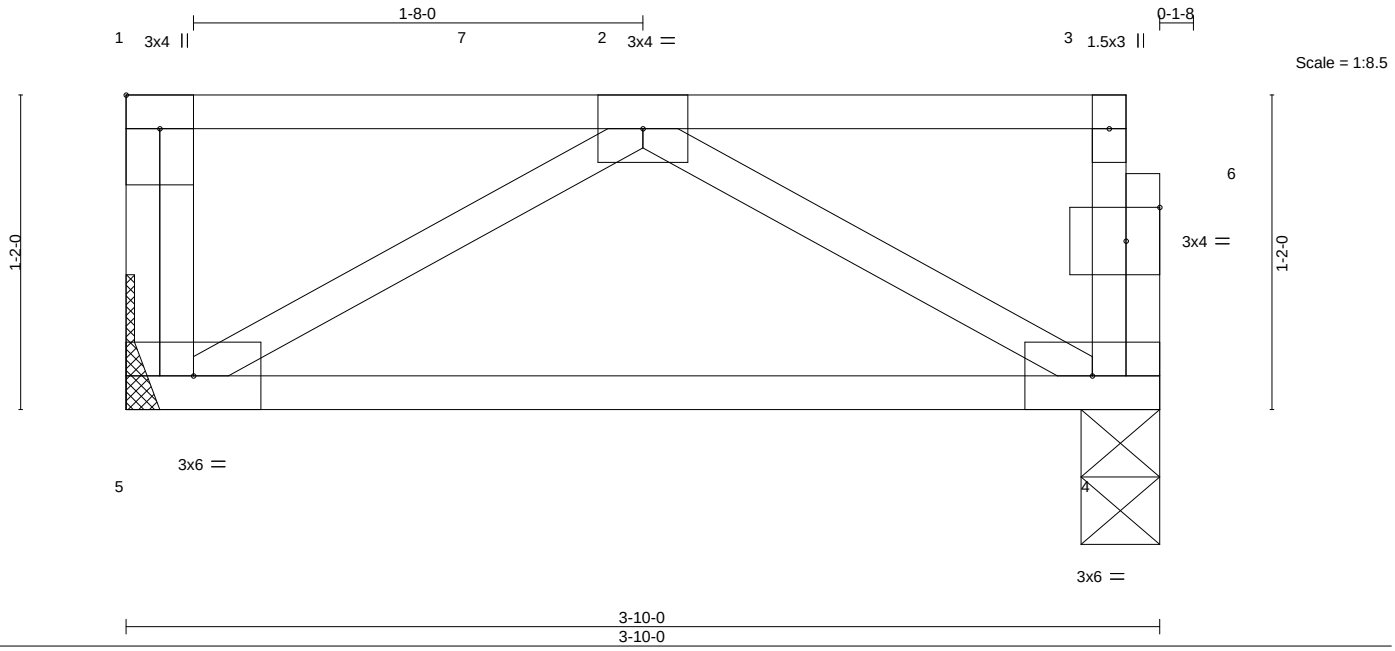


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [6:0-1-8,0-1-8]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.38	Vert(LL)	0.00	5	****	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.14	Vert(CT)	-0.02	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 22 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

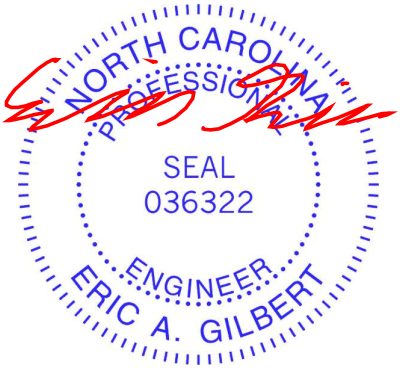
BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 4=0-3-8
Max Grav 5=331(LC 1), 4=523(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-312/0
BOT CHORD 4-5=0/357
WEBS 2-4=-391/0, 2-5=-413/0

NOTES-
1) Plates checked for a plus or minus 1 degree rotation about its center.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 261 lb down at 1-4-12, and 283 lb down at 3-7-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 4-5=-8, 1-3=-80
Concentrated Loads (lb)
Vert: 3=-283(F) 7=-261(F)



May 5,2025

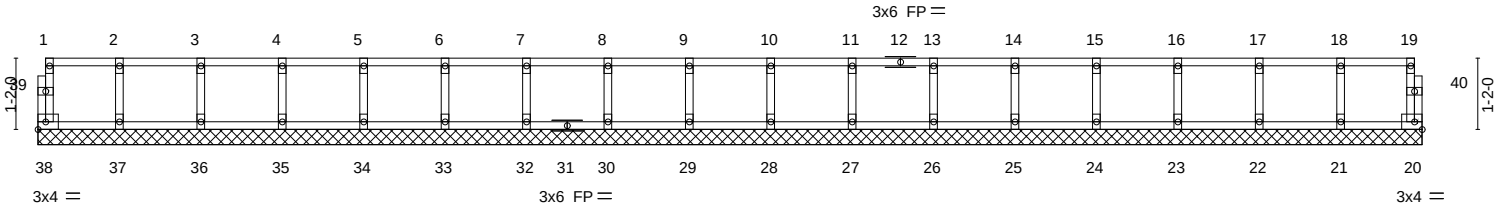
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	FKW1	Floor Supported Gable	1	1	I73190361
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:08 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8 0-1-8

Scale = 1:37.7



22-8-0
22-8-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	20	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 94 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS. All bearings 22-8-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 38, 20, 37, 36, 35, 34, 33, 32, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21

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

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 5,2025

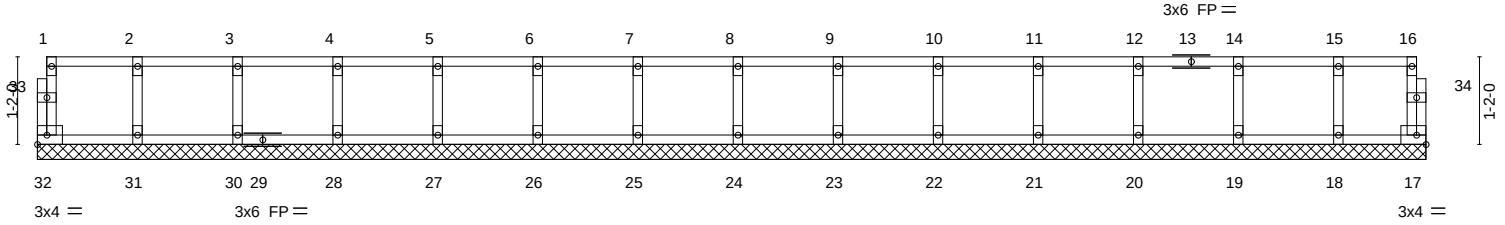
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	FKW2	Floor Supported Gable	1	1	I73190362
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:08 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8 0-1-8

Scale = 1:30.7



18-6-0
18-6-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 77 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING-

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

REACTIONS. All bearings 18-6-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 32, 17, 31, 30, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18

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

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 5,2025

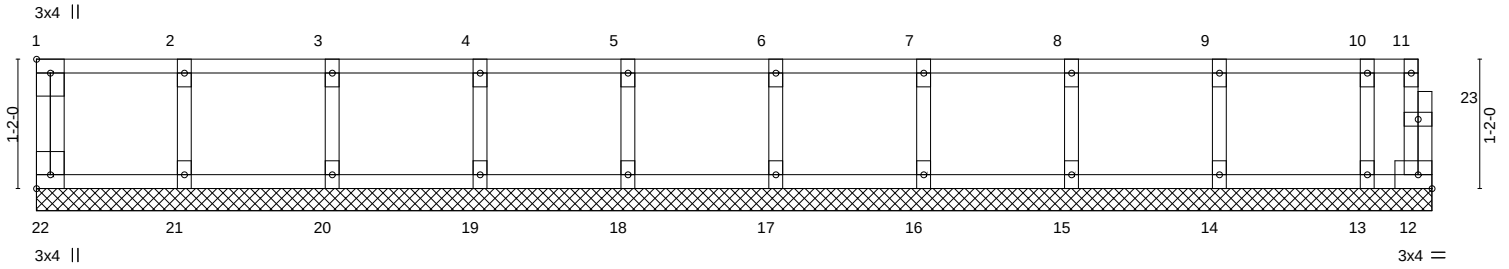
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	FKW3	Floor Supported Gable	1	1	I73190363
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:09 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8

Scale = 1:20.8



12-7-0
12-7-0

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [22:Edge,0-1-8]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 55 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

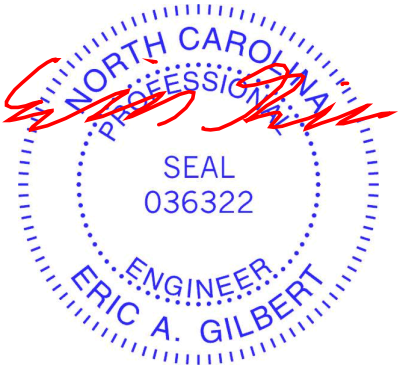
BRACING-

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

REACTIONS. All bearings 12-7-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 20, 19, 18, 17, 16, 15, 14, 13

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

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.



May 5,2025

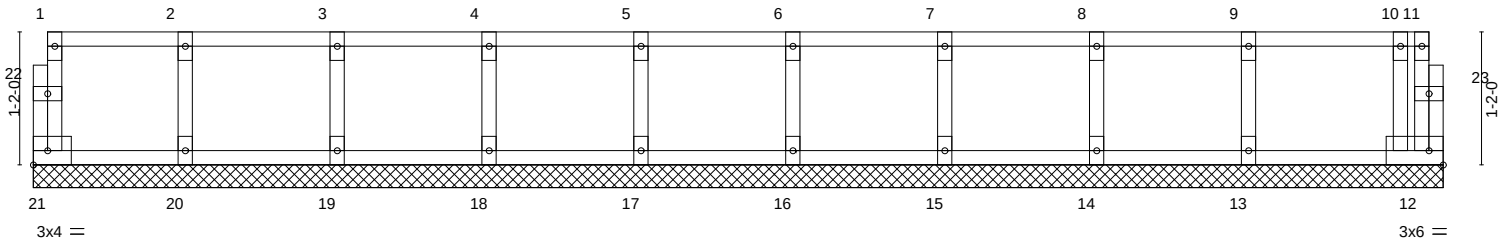
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 39 Duncan's Creek
J0525-2413	FKW4	GABLE	1	1	I73190364
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Fri May 2 07:17:09 2025 Page 1
ID:6XJu5EDhIOALdYBK4rF8nKyOFED-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8 0-1-8

Scale = 1:20.2



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	12-4-8
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-4-8

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 54 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS. All bearings 12-4-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 21, 12, 20, 19, 18, 17, 16, 15, 14, 13

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

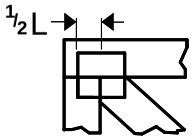
NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 5,2025

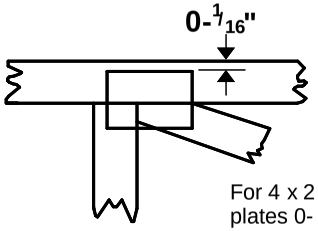
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

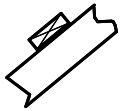
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

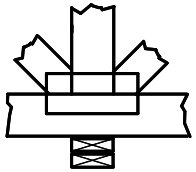
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

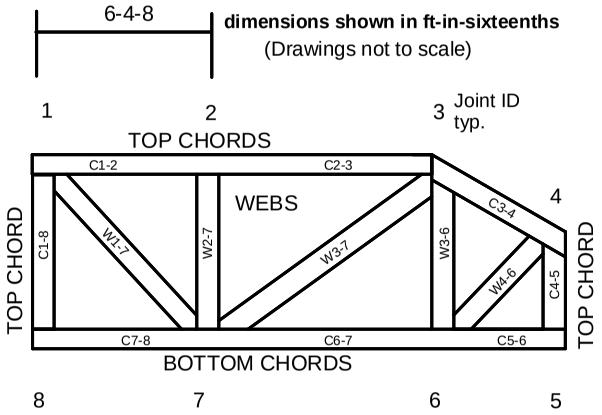


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

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.