ENGINEERING BY TRENCO
A MiTek Affiliate

RE: J0425-1935
Lot 21 Turlington Acres

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: J0425-1935
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 16 individual, dated Truss Design Drawings and 0 Additional Drawings.

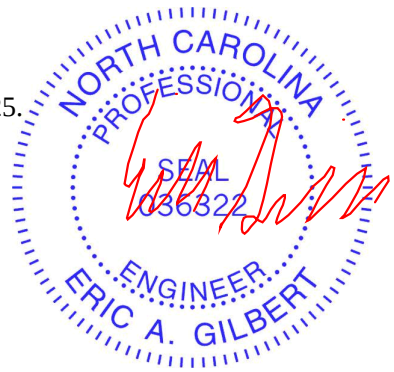
No.	Seal#	Truss Name	Date
1	I72199004	A01	3/24/2025
2	I72199005	A02	3/24/2025
3	I72199006	A03	3/24/2025
4	I72199007	A04	3/24/2025
5	I72199008	A05	3/24/2025
6	I72199009	A06	3/24/2025
7	I72199010	A07	3/24/2025
8	I72199011	A08	3/24/2025
9	I72199012	B01	3/24/2025
10	I72199013	B02	3/24/2025
11	I72199014	M01	3/24/2025
12	I72199015	M02	3/24/2025
13	I72199016	M03	3/24/2025
14	I72199017	M04	3/24/2025
15	I72199018	V01	3/24/2025
16	I72199019	V02	3/24/2025

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

Truss Design Engineer's Name: Gilbert, Eric

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

North Carolina COA: C-0844



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

March 24, 2025

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I72199004
J0425-1935	A01	Common Supported Gable	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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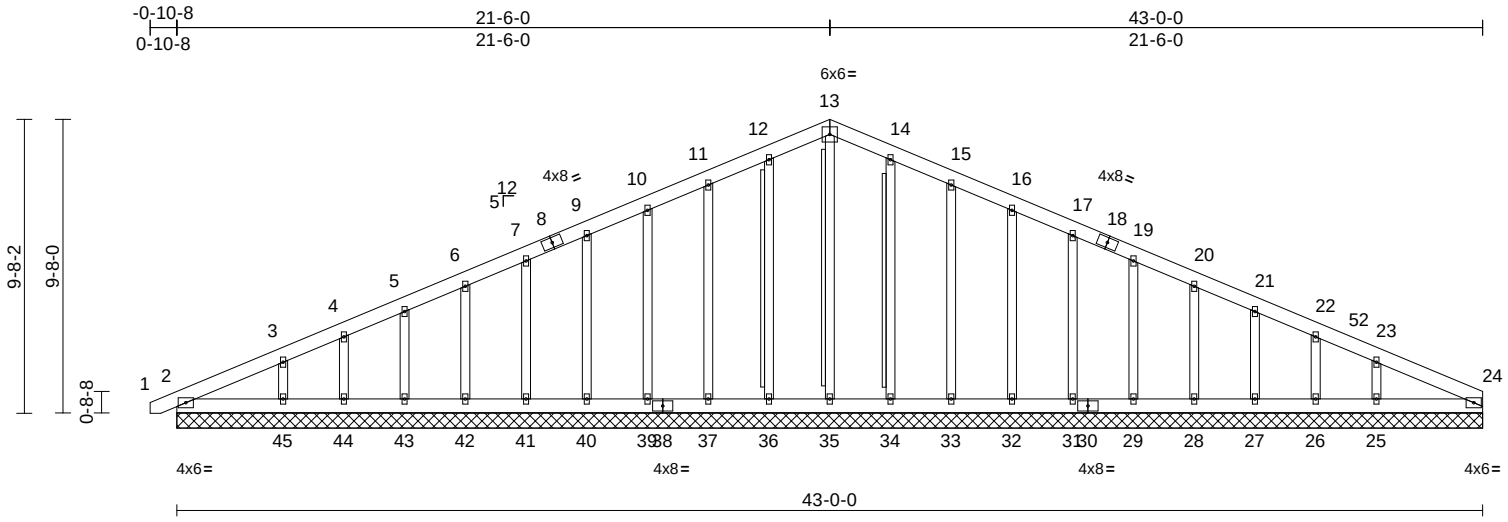

Scale = 1:75.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	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	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	24	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS							Weight: 348 lb	FT = 25%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2 *Except* 0-0,0-0,0-0:2x4 SPF No.2(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Structural wood sheathing directly applied.
WEBS T-Brace: 2x4 SPF No.2 - 13-35, 12-36, 14-34
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (size) 2=43-0-0, 24=43-0-0, 25=43-0-0, 26=43-0-0, 27=43-0-0, 28=43-0-0, 29=43-0-0, 31=43-0-0, 32=43-0-0, 33=43-0-0, 34=43-0-0, 35=43-0-0, 36=43-0-0, 37=43-0-0, 39=43-0-0, 40=43-0-0, 41=43-0-0, 42=43-0-0, 43=43-0-0, 44=43-0-0, 45=43-0-0, 46=43-0-0, 49=43-0-0
Max Horiz 2=115 (LC 12), 46=115 (LC 12)
Max Uplift 2=-2 (LC 13), 25=-63 (LC 13), 26=-16 (LC 13), 27=-31 (LC 13), 28=-28 (LC 13), 29=-29 (LC 13), 31=-28 (LC 13), 32=-29 (LC 13), 33=-35 (LC 13), 34=-6 (LC 13), 36=-12 (LC 12), 37=-34 (LC 12), 39=-29 (LC 12), 40=-28 (LC 12), 41=-29 (LC 12), 42=-28 (LC 12), 43=-31 (LC 12), 44=-14 (LC 12), 45=-67 (LC 12), 46=-2 (LC 13)
Max Grav 2=175 (LC 1), 24=127 (LC 1), 25=280 (LC 26), 26=116 (LC 1), 27=169 (LC 26), 28=158 (LC 1), 29=160 (LC 26), 31=160 (LC 1), 32=160 (LC 1), 33=162 (LC 26), 34=160 (LC 26), 35=151 (LC 22), 36=160 (LC 25), 37=162 (LC 25), 39=160 (LC 1), 40=160 (LC 1), 41=160 (LC 25), 42=158 (LC 1), 43=168 (LC 25), 44=120 (LC 1), 45=271 (LC 25), 46=175 (LC 1), 49=127 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-141/55, 3-4=-104/53, 4-5=-87/65, 5-6=-75/84, 6-7=-62/119, 7-9=-69/166, 9-10=-86/212, 10-11=-102/259, 11-12=-120/309, 12-13=-131/341, 13-14=-131/341, 14-15=-120/309, 15-16=-102/259, 16-17=-86/212, 17-19=-69/166, 19-20=-53/119, 20-21=-49/72, 21-22=-53/25, 22-23=-70/8, 23-24=-120/41
BOT CHORD 2-45=-37/162, 44-45=-37/162, 43-44=-37/162, 42-43=-37/162, 41-42=-37/162, 40-41=-37/162, 39-40=-37/162, 37-39=-37/162, 36-37=-37/162, 35-36=-37/162, 34-35=-37/162, 33-34=-37/162, 32-33=-37/162, 31-32=-37/162, 29-31=-37/162, 28-29=-37/162, 27-28=-37/162, 26-27=-37/162, 25-26=-37/162, 24-25=-37/162
WEBS 13-35=-129/12, 12-36=-120/58, 11-37=-122/109, 10-39=-120/98, 9-40=-120/97, 7-41=-120/97, 6-42=-120/97, 5-43=-123/101, 4-44=-100/82, 3-45=-183/199, 14-34=-120/58, 15-33=-122/109, 16-32=-120/98, 17-31=-120/97, 19-29=-120/97, 20-28=-120/97, 21-27=-123/100, 22-26=-99/81, 23-25=-187/221

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 Corner(3E) -0-8-7 to 3-6-0, Exterior(2N) 3-6-0 to 21-6-0, Corner(3R) 21-6-0 to 25-10-13, Exterior(2N) 25-10-13 to 43-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 2, 12 lb uplift at joint 36, 34 lb uplift at joint 37, 29 lb uplift at joint 39, 28 lb uplift at joint 40, 29 lb uplift at joint 41, 28 lb uplift at joint 42, 31 lb uplift at joint 43, 14 lb uplift at joint 44, 67 lb uplift at joint 45, 6 lb uplift at joint 34, 35 lb uplift at joint 33, 29 lb uplift at joint 32, 28 lb uplift at joint 31, 29 lb uplift at joint 29, 28 lb uplift at joint 28, 31 lb uplift at joint 27, 16 lb uplift at joint 26, 63 lb uplift at joint 25 and 2 lb uplift at joint 2.
11) 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.
12) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I72199005
J0425-1935	A02	Common	5	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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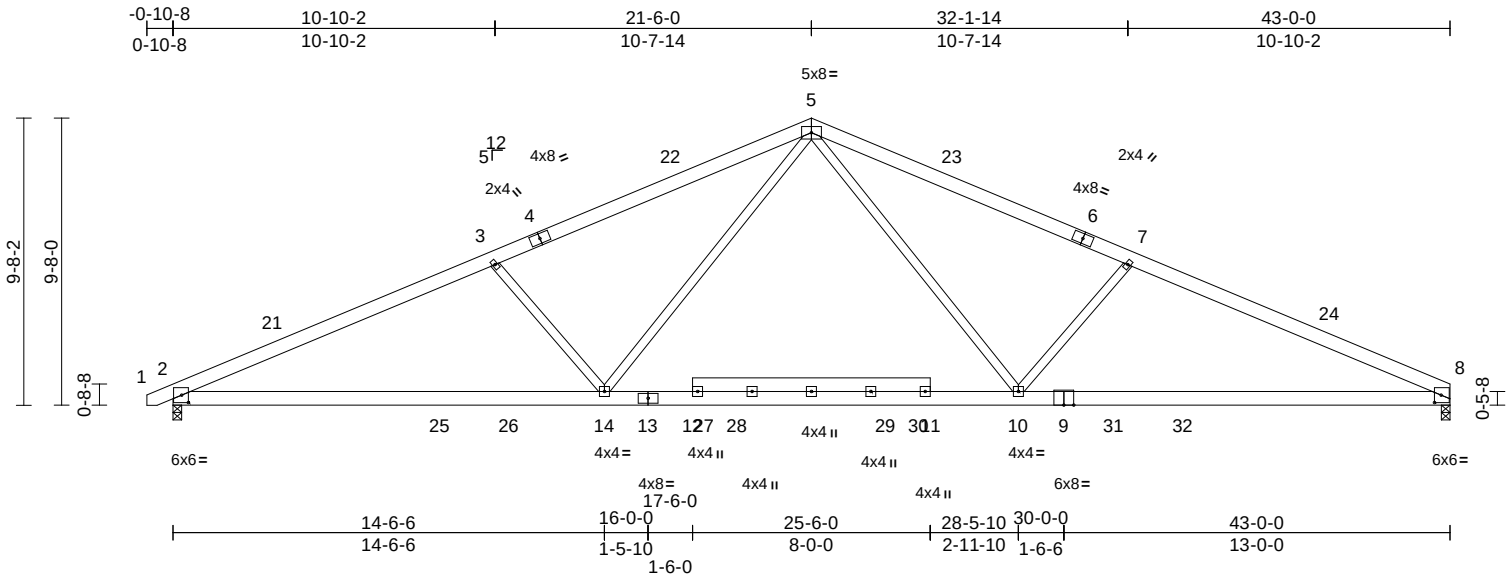

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Plate Offsets (X, Y): [2:0-2-11,0-3-0], [6:0-0-0,0-0-0], [8:0-2-11,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.26	10-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.50	10-14	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.10	14-20	>999	240	Weight: 281 lb	FT = 25%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Structural wood sheathing directly applied.

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=115 (LC 12)
Max Uplift 2=-18 (LC 12), 8=-9 (LC 13)
Max Grav 2=2052 (LC 2), 8=2016 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-4012/452, 3-5=-3661/406, 5-7=-3662/412, 7-8=-4013/459
BOT CHORD 2-14=-323/3625, 10-14=-102/2440, 8-10=-309/3626
WEBS 5-14=0/1416, 3-14=-670/353, 7-10=-671/353, 5-10=0/1418

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) -0-8-7 to 3-8-6, Interior (1) 3-8-6 to 21-6-0, Exterior(2R) 21-6-0 to 25-10-13, Interior (1) 25-10-13 to 43-0-0 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, 21-6-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
7) One RT3A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 2. This connection is for uplift only and does not consider lateral forces.
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.

LOAD CASE(S) Standard

March 24,2025

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I72199006
J0425-1935	A03	Common	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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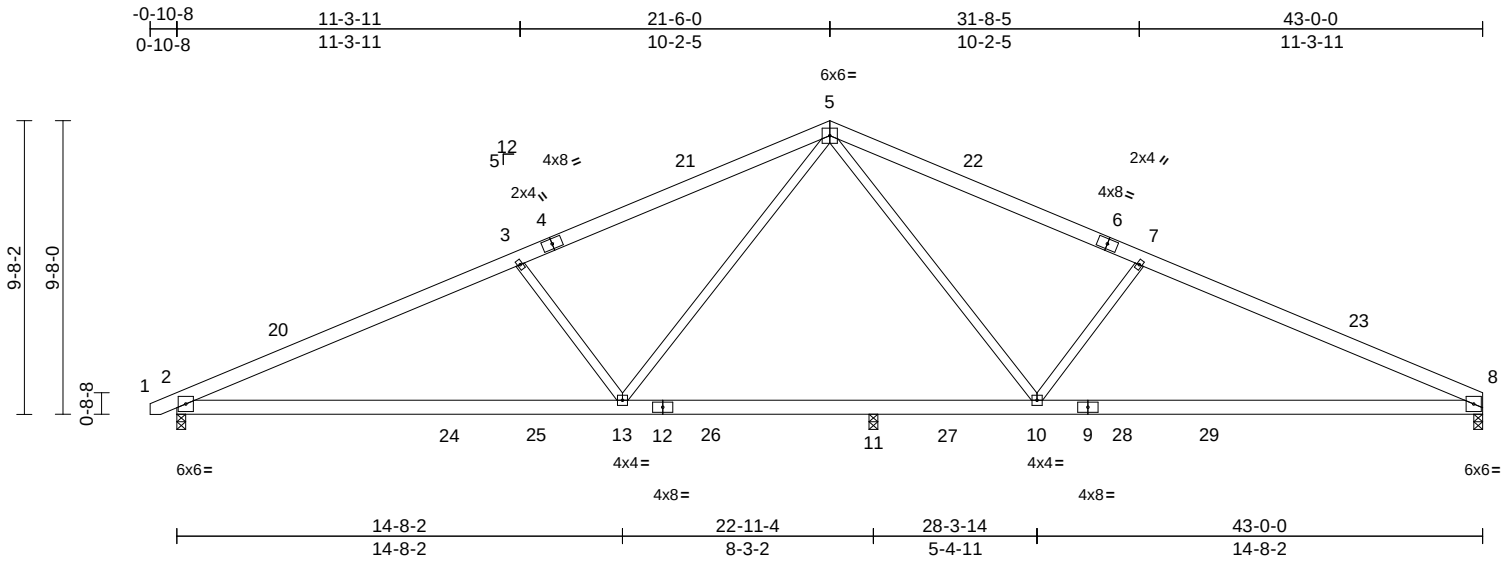

Scale = 1:75.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.36	10-19	>678	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.68	10-19	>354	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.13	10-19	>999	240	Weight: 262 lb	FT = 25%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Structural wood sheathing directly applied.

REACTIONS (size) 2=0-3-8, 8=0-3-8, 11=0-3-8
Max Horiz 2=115 (LC 12)
Max Uplift 2=-126 (LC 12), 8=-119 (LC 13)
Max Grav 2=1804 (LC 2), 8=1745 (LC 2), 11=344 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-3307/685, 3-5=-2994/660, 5-7=-2926/665, 7-8=-3241/691
BOT CHORD 2-13=-531/2998, 11-13=-257/1986, 10-11=-257/1986, 8-10=-515/2938
WEBS 3-13=-687/339, 5-13=-128/1177, 5-10=-125/1081, 7-10=-691/340

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) -0-8-7 to 3-8-6, Interior (1) 3-8-6 to 21-6-0, Exterior(2R) 21-6-0 to 25-10-13, Interior (1) 25-10-13 to 43-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
6) One RT3A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 8, and 11. This connection is for uplift only and does not consider lateral forces.
7) 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.

LOAD CASE(S) Standard

March 24,2025

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres
J0425-1935	A04	Roof Special	2	1	I72199007 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

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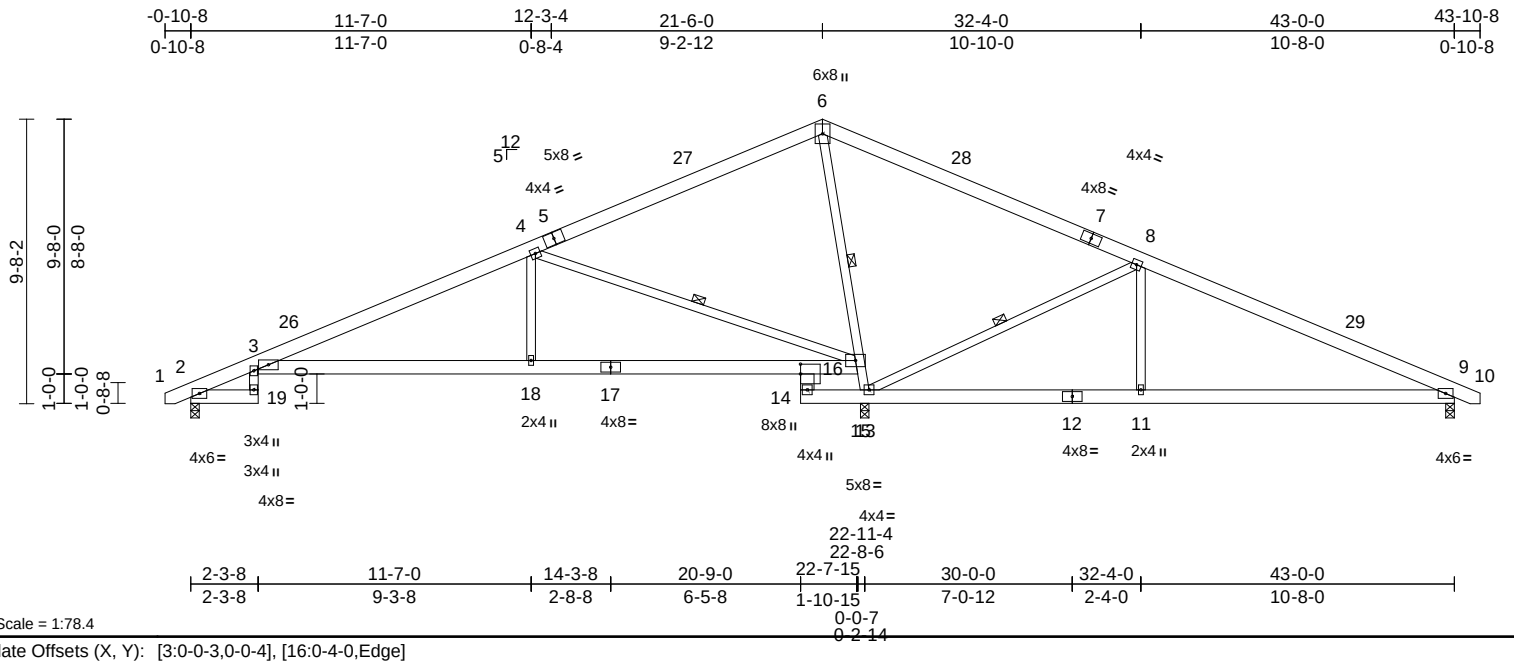

Scale = 1:78.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.21	3-18	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.42	3-18	>664	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.10	13	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.20	3-18	>999	240	Weight: 278 lb	FT = 25%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1 *Except* 19-3:2x4 SP No.2
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Structural wood sheathing directly applied.
WEBS 1 Row at midpt 6-13, 4-15, 8-13

REACTIONS (size) 2=0-3-8, 9=0-3-8, 13=0-3-8
Max Horiz 2=-111 (LC 13)
Max Uplift 2=-60 (LC 12), 9=-158 (LC 13), 13=-126 (LC 12)
Max Grav 2=531 (LC 25), 9=549 (LC 26), 13=2683 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-288/125, 3-4=-352/194, 4-6=-48/1169, 6-8=-57/1423, 8-9=-492/680, 9-10=0/16
BOT CHORD 2-19=-81/171, 3-19=-48/235, 3-18=-75/287, 16-18=-74/286, 15-16=-238/1075, 14-16=-168/0, 13-14=-813/188, 11-13=-578/392, 9-11=-578/392
WEBS 6-15=-1485/290, 13-15=-1990/420, 4-15=-1324/321, 4-18=0/417, 8-13=-1243/347, 8-11=0/455

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) -0-8-7 to 3-8-6, Interior (1) 3-8-6 to 21-6-0, Exterior(2R) 21-6-0 to 25-10-13, Interior (1) 25-10-13 to 43-8-7 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
6) One RT3A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 13, and 9. This connection is for uplift only and does not consider lateral forces.
7) 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.

LOAD CASE(S) Standard

March 24,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I72199008
J0425-1935	A05	Roof Special	4	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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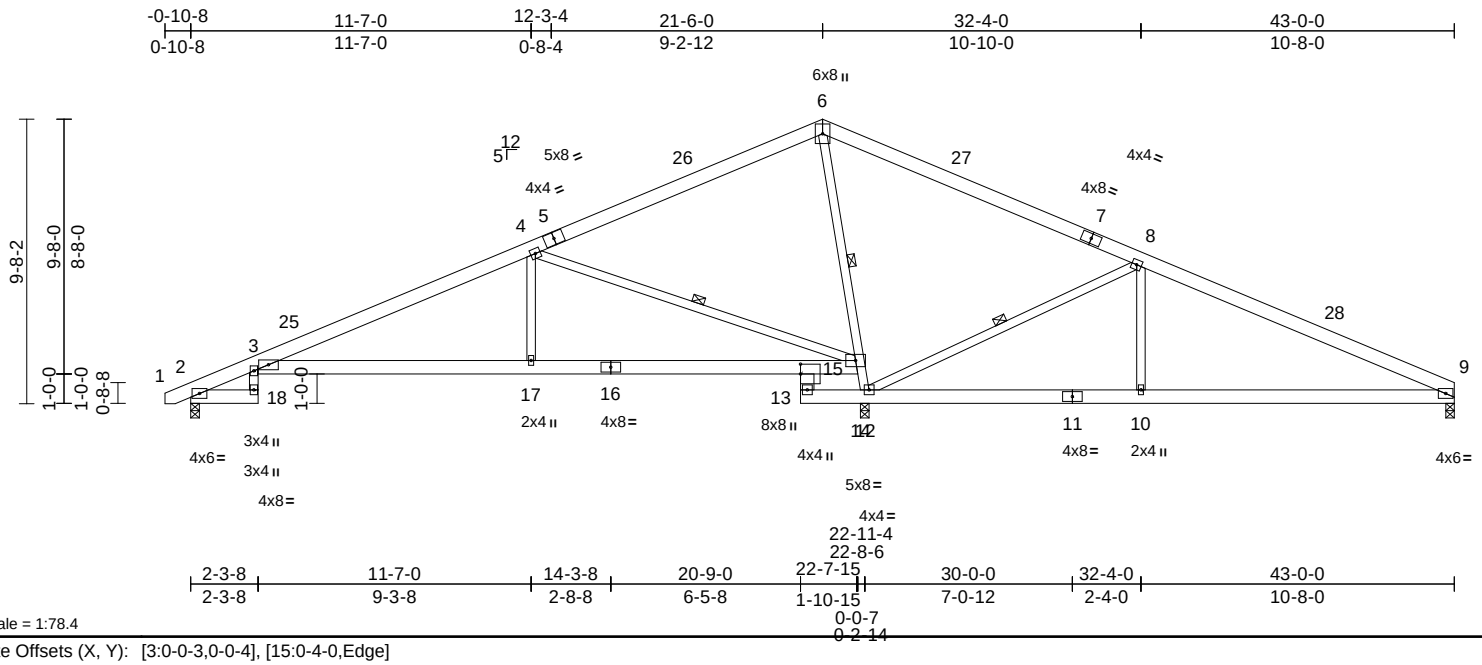

Scale = 1:78.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.21	3-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.42	3-17	>663	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.10	12	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.20	3-17	>999	240	Weight: 276 lb	FT = 25%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1 *Except* 18-3:2x4 SP No.2
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Structural wood sheathing directly applied.
WEBS 1 Row at midpt 6-12, 4-14, 8-12

REACTIONS (size) 2=0-3-8, 9=0-3-8, 12=0-3-8
Max Horiz 2=115 (LC 16)
Max Uplift 2=-58 (LC 12), 9=-145 (LC 13), 12=-129 (LC 12)
Max Grav 2=531 (LC 25), 9=506 (LC 26), 12=2683 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-288/117, 3-4=-352/180, 4-6=-51/1169, 6-8=-64/1422, 8-9=-494/679
BOT CHORD 2-18=-83/171, 3-18=-49/235, 3-17=-76/287, 15-17=-76/287, 14-15=-241/1075, 13-15=-168/0, 12-13=-813/186, 10-12=-577/395, 9-10=-577/395
WEBS 4-17=0/417, 6-14=-1484/296, 12-14=-1990/433, 8-10=0/456, 4-14=-1324/324, 8-12=-1246/348

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) -0-8-7 to 3-8-6, Interior (1) 3-8-6 to 21-6-0, Exterior(2R) 21-6-0 to 25-10-13, Interior (1) 25-10-13 to 43-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
6) One RT3A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 12, and 9. This connection is for uplift only and does not consider lateral forces.
7) 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.

LOAD CASE(S) Standard

March 24,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I72199009
J0425-1935	A06	Common	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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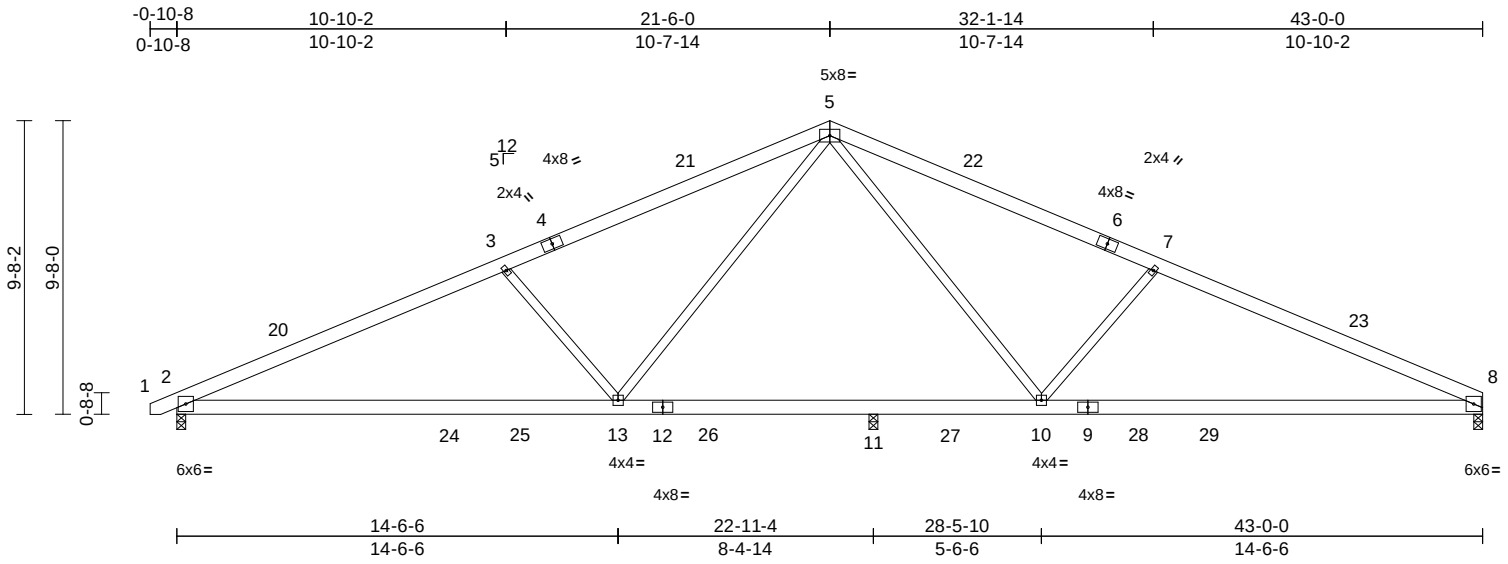

Scale = 1:75.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.33	10-19	>720	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.65	10-19	>372	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.12	10-19	>999	240	Weight: 262 lb	FT = 25%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Structural wood sheathing directly applied.

REACTIONS (size) 2=0-3-8, 8=0-3-8, 11=0-3-8
Max Horiz 2=115 (LC 12)
Max Uplift 2=-128 (LC 12), 8=-121 (LC 13)
Max Grav 2=1788 (LC 2), 8=1727 (LC 2), 11=365 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-3300/699, 3-5=-2958/655, 5-7=-2885/661, 7-8=-3229/705
BOT CHORD 2-13=-549/2995, 11-13=-263/1961, 10-11=-263/1961, 8-10=-533/2932
WEBS 5-13=-114/1146, 7-10=-701/343, 5-10=-112/1044, 3-13=-696/342

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) -0-8-7 to 3-8-6, Interior (1) 3-8-6 to 21-6-0, Exterior(2R) 21-6-0 to 25-10-13, Interior (1) 25-10-13 to 43-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
6) One RT3A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 8, and 11. This connection is for uplift only and does not consider lateral forces.
7) 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.

LOAD CASE(S) Standard

March 24,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	
J0425-1935	A07	Common	6	1	Job Reference (optional)	I72199010

Comtech, Inc, Fayetteville, NC - 28314,

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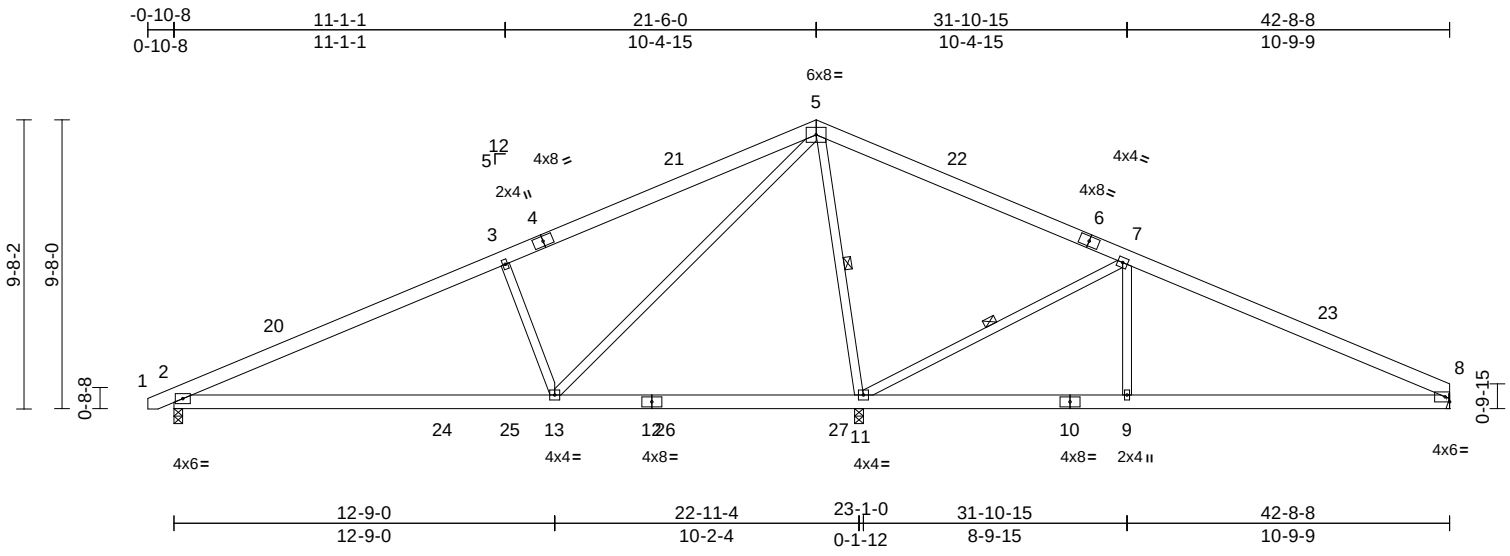

Scale = 1:77.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.15	13-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.31	13-16	>879	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.08	13-16	>999	240	Weight: 270 lb	FT = 25%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Structural wood sheathing directly applied.
WEBS 1 Row at midpt 5-11, 7-11

REACTIONS (size) 2=0-3-8, 8= Mechanical, 11=0-3-8
Max Horiz 2=117 (LC 12)
Max Uplift 2=-88 (LC 12), 8=-85 (LC 13), 11=-65 (LC 12)
Max Grav 2=927 (LC 27), 8=711 (LC 28), 11=2199 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-1257/279, 3-5=-1105/343, 5-7=0/452, 7-8=-922/213
BOT CHORD 2-13=-166/1111, 11-13=-146/147, 9-11=-83/756, 8-9=-139/756
WEBS 5-13=-260/1456, 3-13=-681/343, 5-11=-1300/327, 7-11=-1161/314, 7-9=0/417

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) -0-8-7 to 3-8-6, Interior (1) 3-8-6 to 21-6-0, Exterior(2R) 21-6-0 to 25-10-13, Interior (1) 25-10-13 to 42-8-8 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Bearings are assumed to be: Joint 2 SP No.1 crushing capacity of 565 psi, Joint 11 SP No.1 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 8.
8) One RT3A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 11. This connection is for uplift only and does not consider lateral forces.
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.

LOAD CASE(S) Standard

March 24,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	
J0425-1935	A08	Common Supported Gable	1	1	Job Reference (optional)	I72199011

Comtech, Inc, Fayetteville, NC - 28314,

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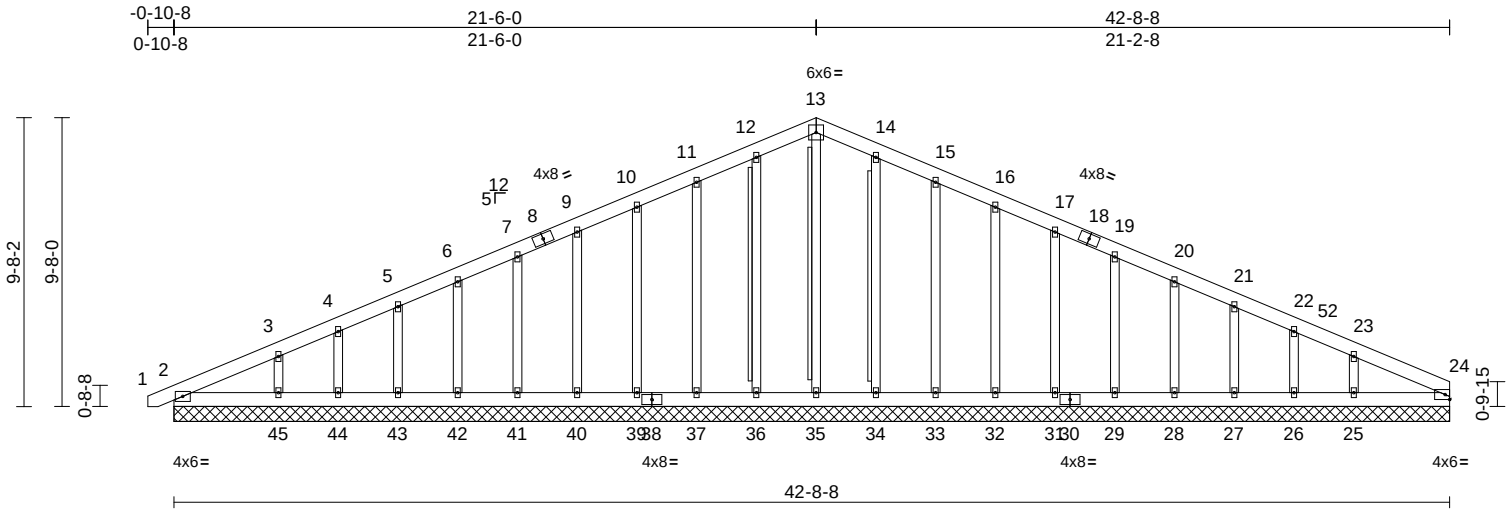

Scale = 1:77.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	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	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	24	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS							Weight: 347 lb	FT = 25%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2 *Except* 0-0,0-0,0-0:2x4 SPF No.2(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Structural wood sheathing directly applied.
WEBS T-Brace: 2x4 SPF No.2 - 13-35, 12-36, 14-34
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (size) 2=42-8-8, 24=42-8-8, 25=42-8-8, 26=42-8-8, 27=42-8-8, 28=42-8-8, 29=42-8-8, 31=42-8-8, 32=42-8-8, 33=42-8-8, 34=42-8-8, 35=42-8-8, 36=42-8-8, 37=42-8-8, 39=42-8-8, 40=42-8-8, 41=42-8-8, 42=42-8-8, 43=42-8-8, 44=42-8-8, 45=42-8-8, 46=42-8-8, 49=42-8-8
Max Horiz 2=117 (LC 12), 46=117 (LC 12)
Max Uplift 2=-2 (LC 13), 25=-67 (LC 13), 26=-15 (LC 13), 27=-31 (LC 13), 28=-28 (LC 13), 29=-29 (LC 13), 31=-28 (LC 13), 32=-29 (LC 13), 33=-35 (LC 13), 34=-6 (LC 13), 36=-12 (LC 12), 37=-34 (LC 12), 39=-29 (LC 12), 40=-28 (LC 12), 41=-29 (LC 12), 42=-28 (LC 12), 43=-31 (LC 12), 44=-14 (LC 12), 45=-67 (LC 12), 46=-2 (LC 13)
Max Grav 2=176 (LC 1), 24=120 (LC 1), 25=256 (LC 26), 26=128 (LC 1), 27=167 (LC 26), 28=159 (LC 1), 29=160 (LC 26), 31=160 (LC 1), 32=160 (LC 1), 33=162 (LC 26), 34=160 (LC 26), 35=150 (LC 22), 36=160 (LC 25), 37=162 (LC 25), 39=160 (LC 1), 40=160 (LC 1), 41=160 (LC 25), 42=158 (LC 1), 43=168 (LC 25), 44=120 (LC 1), 45=271 (LC 25), 46=176 (LC 1), 49=120 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-141/55, 3-4=-106/53, 4-5=-89/66, 5-6=-76/84, 6-7=-63/121, 7-9=-70/167, 9-10=-87/214, 10-11=-103/261, 11-12=-121/311, 12-13=-132/343, 13-14=-132/343, 14-15=-121/311, 15-16=-103/261, 16-17=-87/214, 17-19=-70/167, 19-20=-54/121, 20-21=-51/74, 21-22=-54/26, 22-23=-70/7, 23-24=-122/39
BOT CHORD 2-45=-36/154, 44-45=-34/154, 43-44=-34/154, 42-43=-34/154, 41-42=-34/154, 40-41=-34/154, 39-40=-34/154, 37-39=-34/154, 36-37=-34/154, 35-36=-34/154, 34-35=-34/154, 33-34=-34/154, 32-33=-34/154, 31-32=-34/154, 29-31=-34/154, 28-29=-34/154, 27-28=-34/154, 26-27=-34/154, 25-26=-34/154, 24-25=-34/154
WEBS 13-35=-130/12, 12-36=-120/58, 11-37=-122/109, 10-39=-120/98, 9-40=-120/97, 7-41=-120/97, 6-42=-120/97, 5-43=-123/101, 4-44=-100/82, 3-45=-183/199, 14-34=-120/58, 15-33=-122/109, 16-32=-120/98, 17-31=-120/97, 19-29=-120/97, 20-28=-120/97, 21-27=-122/100, 22-26=-103/83, 23-25=-176/223

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 Corner(3E) -0-8-7 to 3-6-0, Exterior(2N) 3-6-0 to 21-6-0, Corner(3R) 21-6-0 to 25-10-13, Exterior(2N) 25-10-13 to 42-8-8 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.

March 24,2025

Continued on page 2

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

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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 2, 12 lb uplift at joint 36, 34 lb uplift at joint 37, 29 lb uplift at joint 39, 28 lb uplift at joint 40, 29 lb uplift at joint 41, 28 lb uplift at joint 42, 31 lb uplift at joint 43, 14 lb uplift at joint 44, 67 lb uplift at joint 45, 6 lb uplift at joint 34, 35 lb uplift at joint 33, 29 lb uplift at joint 32, 28 lb uplift at joint 31, 29 lb uplift at joint 29, 28 lb uplift at joint 28, 31 lb uplift at joint 27, 15 lb uplift at joint 26, 67 lb uplift at joint 25 and 2 lb uplift at joint 2.
11) 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.
12) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I72199012
J0425-1935	B01	Common Supported Gable	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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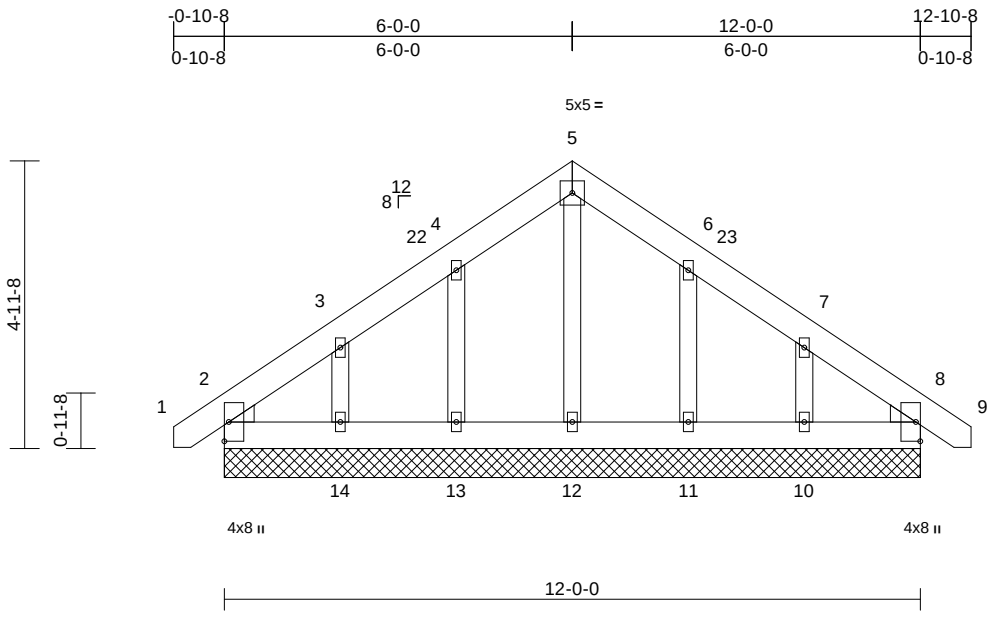

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS							Weight: 87 lb	FT = 25%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Structural wood sheathing directly applied.

REACTIONS (size) 2=12-0-0, 8=12-0-0, 10=12-0-0, 11=12-0-0, 12=12-0-0, 13=12-0-0, 14=12-0-0, 15=12-0-0, 19=12-0-0
Max Horiz 2=108 (LC 11), 15=108 (LC 11)
Max Uplift 2=-20 (LC 8), 10=-72 (LC 13), 11=-34 (LC 13), 13=-34 (LC 12), 14=-76 (LC 12), 15=-20 (LC 8)
Max Grav 2=144 (LC 20), 8=143 (LC 1), 10=186 (LC 20), 11=169 (LC 20), 12=121 (LC 1), 13=170 (LC 19), 14=192 (LC 19), 15=144 (LC 20), 19=143 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/24, 2-3=-93/66, 3-4=-90/94, 4-5=-106/182, 5-6=-106/183, 6-7=-68/88, 7-8=-69/35, 8-9=0/24
BOT CHORD 2-14=-70/133, 13-14=-32/133, 12-13=-32/133, 11-12=-32/133, 10-11=-32/133, 8-10=-32/133
WEBS 5-12=-80/0, 4-13=-135/149, 3-14=-135/203, 6-11=-133/147, 7-10=-136/202

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 Corner(3E) -0-8-12 to 3-8-1, Exterior(2N) 3-8-1 to 6-0-0, Corner(3R) 6-0-0 to 10-4-13, Exterior(2N) 10-4-13 to 12-8-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 2, 34 lb uplift at joint 13, 76 lb uplift at joint 14, 34 lb uplift at joint 11, 72 lb uplift at joint 10 and 20 lb uplift at joint 2.
11) 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.

LOAD CASE(S) Standard

March 24,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres
J0425-1935	B02	Common Girder	1	2	I72199013
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

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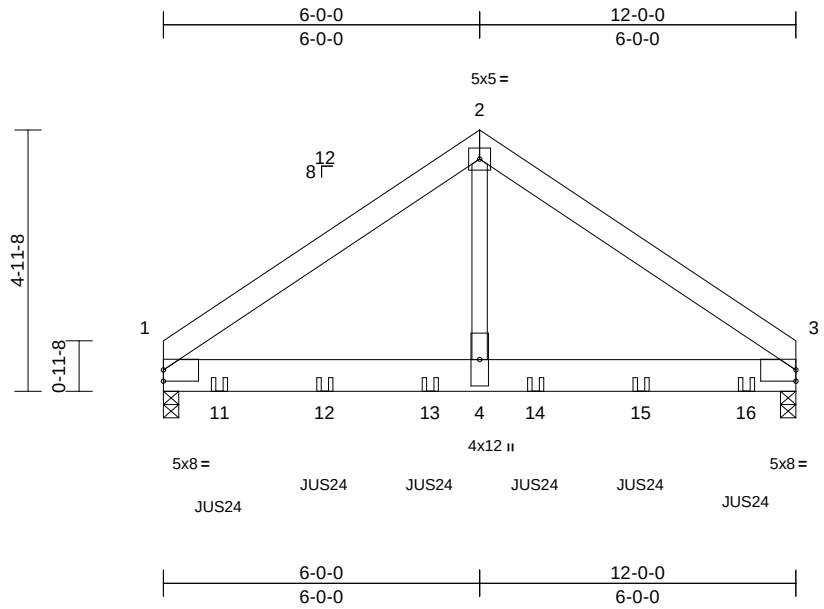

Scale = 1:43.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.02	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.04	4-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.29	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-MS		Wind(LL)	0.02	4-7	>999	240	Weight: 155 lb	FT = 25%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x8 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS (size) 1=0-3-8, 3=0-3-8
Max Horiz 1=-96 (LC 4)
Max Uplift 1=-313 (LC 8), 3=-318 (LC 9)
Max Grav 1=2471 (LC 2), 3=2515 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2483/347, 2-3=-2464/347
BOT CHORD 1-4=-232/2003, 3-4=-232/2003
WEBS 2-4=-265/2356

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.
Web 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); Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
8) One RT3A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
9) Use MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-0-12 from the left end to 11-0-12 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-3=-60, 5-8=-20
Concentrated Loads (lb)
Vert: 11=-668 (B), 12=-668 (B), 13=-668 (B), 14=-668 (B), 15=-668 (B), 16=-668 (B)

March 24,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I72199014
J0425-1935	M01	Monopitch Supported Gable	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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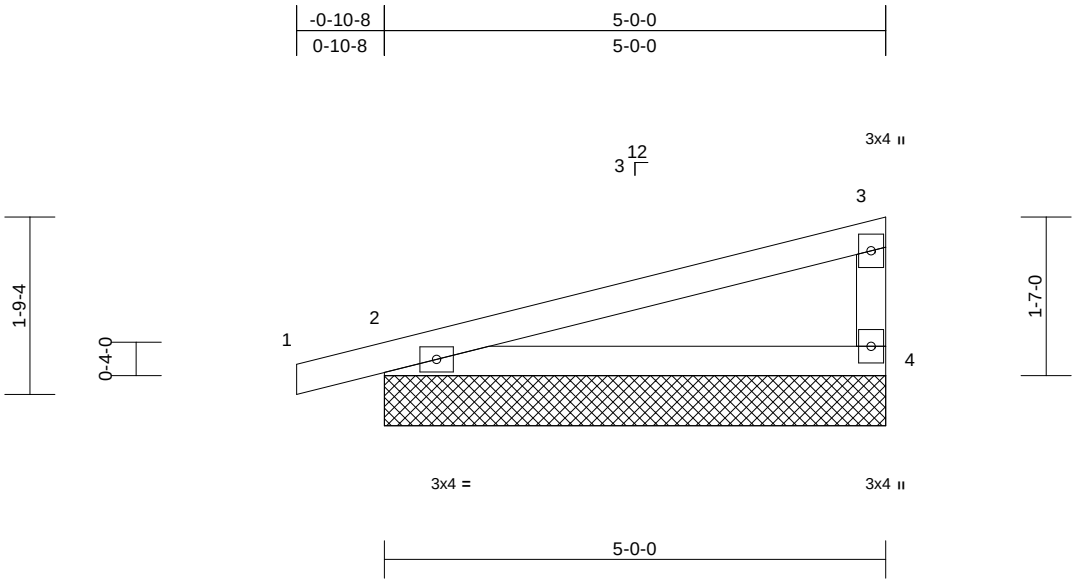

Scale = 1:23

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS							Weight: 18 lb	FT = 25%

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 Structural wood sheathing directly applied.

REACTIONS (size) 2=5-0-0, 4=5-0-0, 5=5-0-0
Max Horiz 2=50 (LC 8), 5=50 (LC 8)
Max Uplift 2=-50 (LC 8), 4=-23 (LC 12), 5=-50 (LC 8)
Max Grav 2=251 (LC 1), 4=192 (LC 1), 5=251 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-3=-133/86, 3-4=-125/215
BOT CHORD 2-4=-153/144

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 Corner(3E) -0-10-8 to 3-6-5, Exterior(2N) 3-6-5 to 4-10-4 zone;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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 2, 23 lb uplift at joint 4 and 50 lb uplift at joint 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.

LOAD CASE(S) Standard

March 24,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I72199015
J0425-1935	M02	Monopitch	13	1	Job Reference (optional)	

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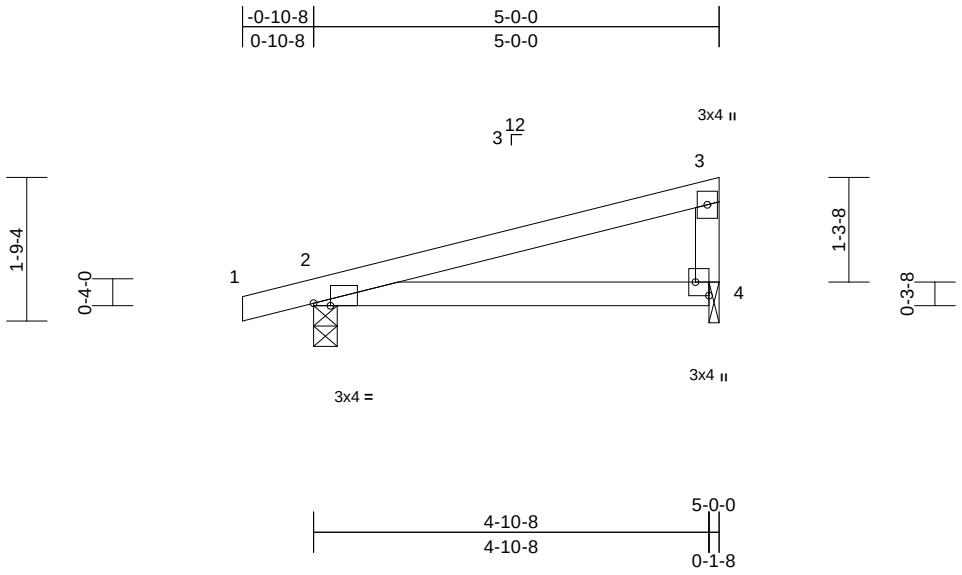

Scale = 1:28.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.02	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.05	4-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.08	4-7	>690	240	Weight: 18 lb	FT = 25%

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

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

REACTIONS (size) 2=0-3-8, 4=0-1-8
Max Horiz 2=50 (LC 8)
Max Uplift 2=-104 (LC 8), 4=-77 (LC 8)
Max Grav 2=251 (LC 1), 4=189 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-3=-129/234, 3-4=-125/185
BOT CHORD 2-4=-260/114

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) -0-10-8 to 3-6-5, Interior (1) 3-6-5 to 4-10-4 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
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
5) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
7) One RT3A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
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.

LOAD CASE(S) Standard

March 24,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I72199016
J0425-1935	M03	Jack-Closed	6	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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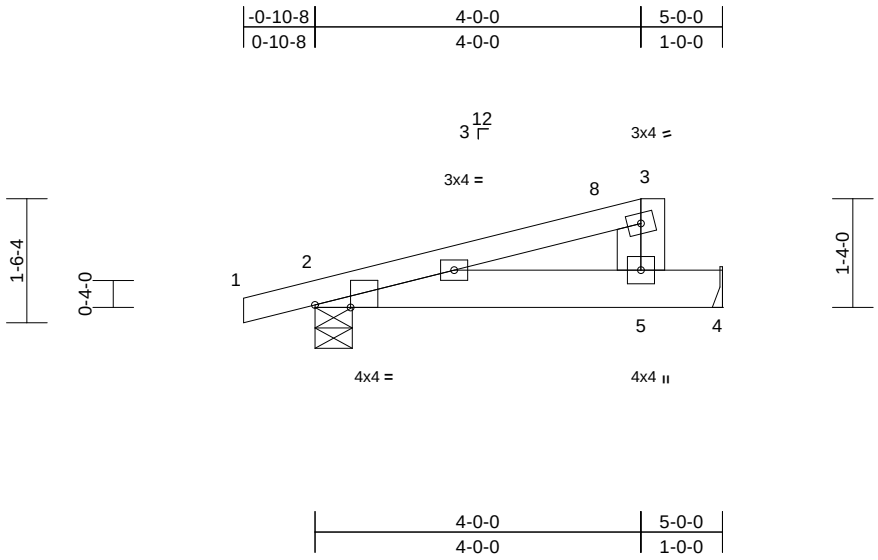

Scale = 1:28.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.03	5-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.06	5-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.02	5-7	>999	240	Weight: 21 lb	FT = 25%

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.
BOT CHORD Structural wood sheathing directly applied.

REACTIONS (size) 2=0-5-8, 4= Mechanical
Max Horiz 2=44 (LC 8)
Max Uplift 2=-6 (LC 8)
Max Grav 2=355 (LC 1), 4=595 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-3=-99/40
BOT CHORD 2-5=-22/19, 4-5=0/0
WEBS 3-5=-113/110

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) -0-10-8 to 3-6-5, Interior (1) 3-6-5 to 4-1-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Bearings are assumed to be: Joint 2 SP No.1 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) One RT3A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
7) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 55 lb down and 50 lb up at 4-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 2-4=-20
Concentrated Loads (lb)
Vert: 5=-550 (F=-55)

March 24,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I72199017
J0425-1935	M04	Monopitch	1	1	Job Reference (optional)	

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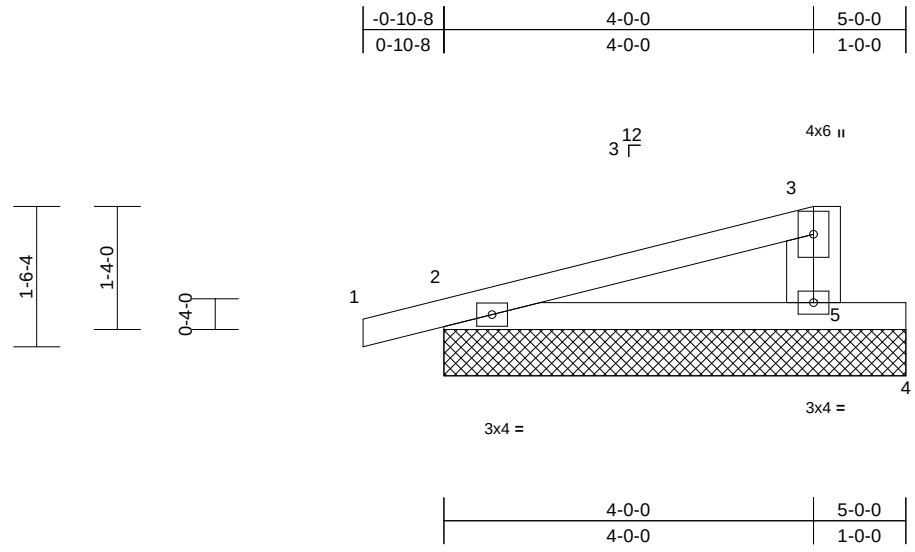

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS							Weight: 18 lb	FT = 25%

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 Structural wood sheathing directly applied.

REACTIONS (size) 2=5-0-0, 4=5-0-0, 5=5-0-0, 6=5-0-0
Max Horiz 2=42 (LC 8), 6=42 (LC 8)
Max Uplift 2=-49 (LC 8), 4=-48 (LC 1), 5=-11 (LC 12), 6=-49 (LC 8)
Max Grav 2=204 (LC 1), 4=6 (LC 12), 5=228 (LC 1), 6=204 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-3=-92/51, 3-5=-88/153
BOT CHORD 2-5=-102/102, 4-5=0/0

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 Corner(3E) -0-10-8 to 3-6-5, Exterior(2N) 3-6-5 to 3-10-4 zone;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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
8) N/A
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.

LOAD CASE(S) Standard

March 24,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	
J0425-1935	V01	Valley	1	1	Job Reference (optional)	I72199018

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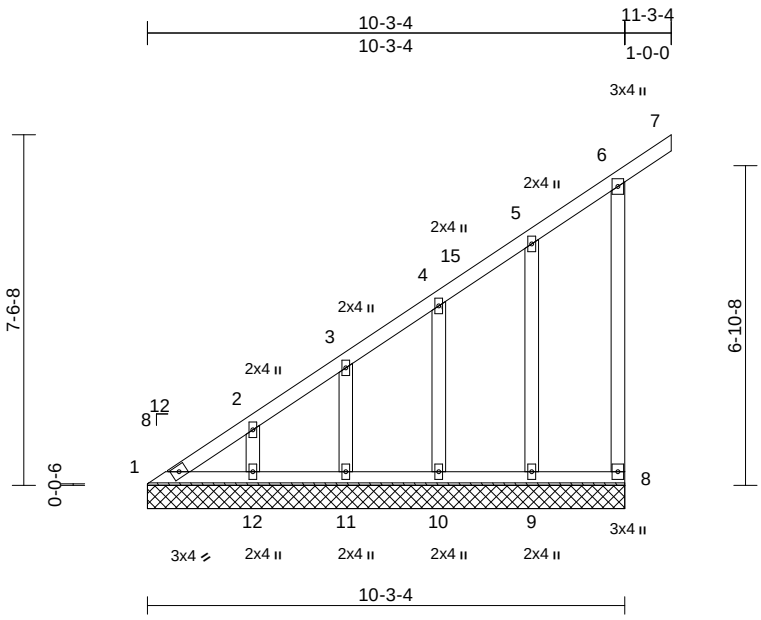

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS							Weight: 62 lb	FT = 25%

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, except end verticals.
BOT CHORD Structural wood sheathing directly applied.

REACTIONS (size) 1=10-3-4, 8=10-3-4, 9=10-3-4, 10=10-3-4, 11=10-3-4, 12=10-3-4
Max Horiz 1=235 (LC 12)
Max Uplift 1=-5 (LC 10), 8=-72 (LC 9), 9=-37 (LC 12), 10=-47 (LC 12), 11=-50 (LC 12), 12=-32 (LC 12)
Max Grav 1=120 (LC 12), 8=153 (LC 19), 9=157 (LC 19), 10=176 (LC 19), 11=163 (LC 19), 12=202 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-576/263, 2-3=-474/212, 3-4=-367/161, 4-5=-254/107, 5-6=-154/63, 6-7=-38/0, 6-8=-138/239
BOT CHORD 1-12=-143/99, 11-12=-1/2, 10-11=-1/2, 9-10=-1/2, 8-9=-1/2
WEBS 5-9=-144/177, 4-10=-137/180, 3-11=-133/190, 2-12=-138/184

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 Corner(3E) 0-0-9 to 4-3-13, Exterior(2N) 4-3-13 to 11-3-13 zone;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) 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1, 72 lb uplift at joint 8, 37 lb uplift at joint 9, 47 lb uplift at joint 10, 50 lb uplift at joint 11 and 32 lb uplift at joint 12.
10) 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.

LOAD CASE(S) Standard

March 24,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I72199019
J0425-1935	V02	Valley	1	1	Job Reference (optional)	

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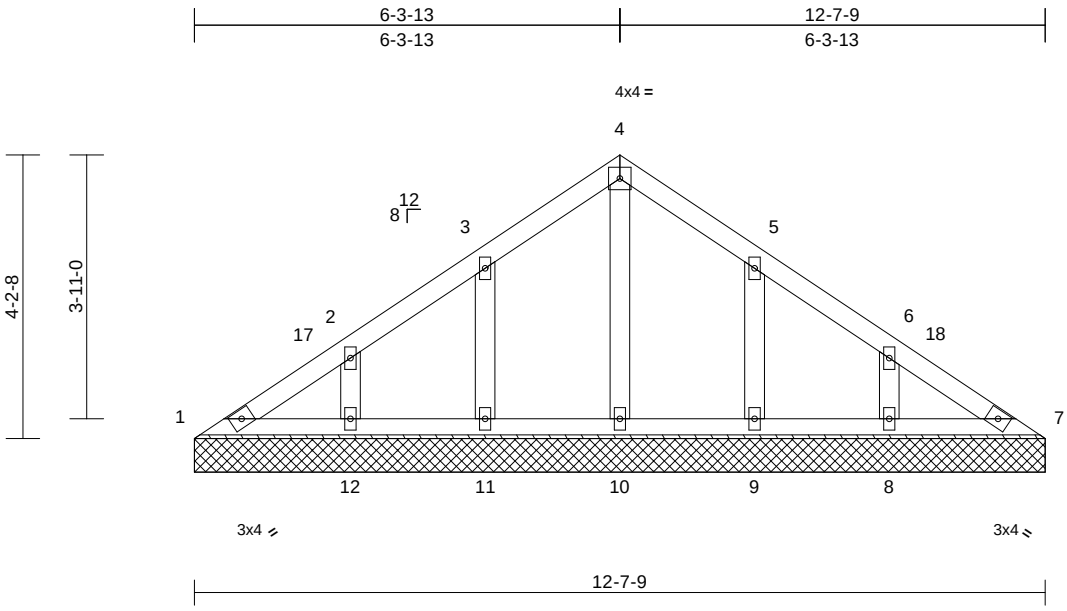


Scale = 1:34.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS							Weight: 55 lb	FT = 25%

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.
BOT CHORD Structural wood sheathing directly applied.

REACTIONS (size) 1=12-7-9, 7=12-7-9, 8=12-7-9, 9=12-7-9, 10=12-7-9, 11=12-7-9, 12=12-7-9
Max Horiz 1=97 (LC 9)
Max Uplift 1=-7 (LC 8), 8=-44 (LC 13), 9=-48 (LC 13), 11=-48 (LC 12), 12=-46 (LC 12)
Max Grav 1=82 (LC 20), 7=73 (LC 26), 8=204 (LC 20), 9=169 (LC 20), 10=166 (LC 1), 11=169 (LC 19), 12=206 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-105/90, 2-3=-58/69, 3-4=-66/113, 4-5=-66/111, 5-6=-30/43, 6-7=-80/62
BOT CHORD 1-12=-55/92, 11-12=-55/79, 10-11=-55/79, 9-10=-55/79, 8-9=-55/79, 7-8=-55/79
WEBS 4-10=-122/0, 3-11=-136/124, 2-12=-138/112, 5-9=-136/124, 6-8=-138/112

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) 0-0-0 to 4-3-13, Interior (1) 4-3-13 to 6-3-13, Exterior(2R) 6-3-13 to 10-8-9, Interior (1) 10-8-9 to 12-7-9 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1, 48 lb uplift at joint 11, 46 lb uplift at joint 12, 48 lb uplift at joint 9 and 44 lb uplift at joint 8.
11) 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.

LOAD CASE(S) Standard

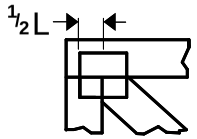
NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 24,2025

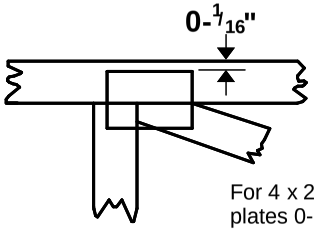
ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

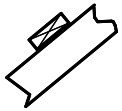
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

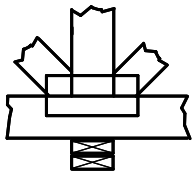
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

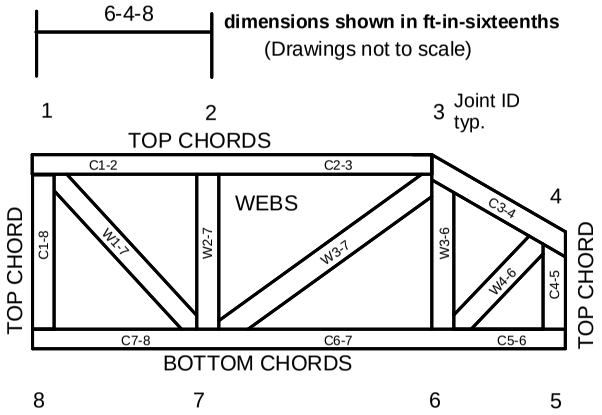


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.