ENGINEERING BY TRENCO
A MiTek Affiliate

RE: J0425-1936
Lot 21 Turlington Acres

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: J0425-1936
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 17 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I73174738	ET-1	5/2/2025
2	I73174739	ET-2	5/2/2025
3	I73174740	ET-3	5/2/2025
4	I73174741	F1	5/2/2025
5	I73174742	F2	5/2/2025
6	I73174743	F2G	5/2/2025
7	I73174744	F4	5/2/2025
8	I73174745	F5	5/2/2025
9	I73174746	F6	5/2/2025
10	I73174747	F7	5/2/2025
11	I73174748	F8	5/2/2025
12	I73174749	F9	5/2/2025
13	I73174750	F10	5/2/2025
14	I73174751	F11	5/2/2025
15	I73174752	F12	5/2/2025
16	I73174753	FG	5/2/2025
17	I73174754	FG2	5/2/2025

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: Galinski, John

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.

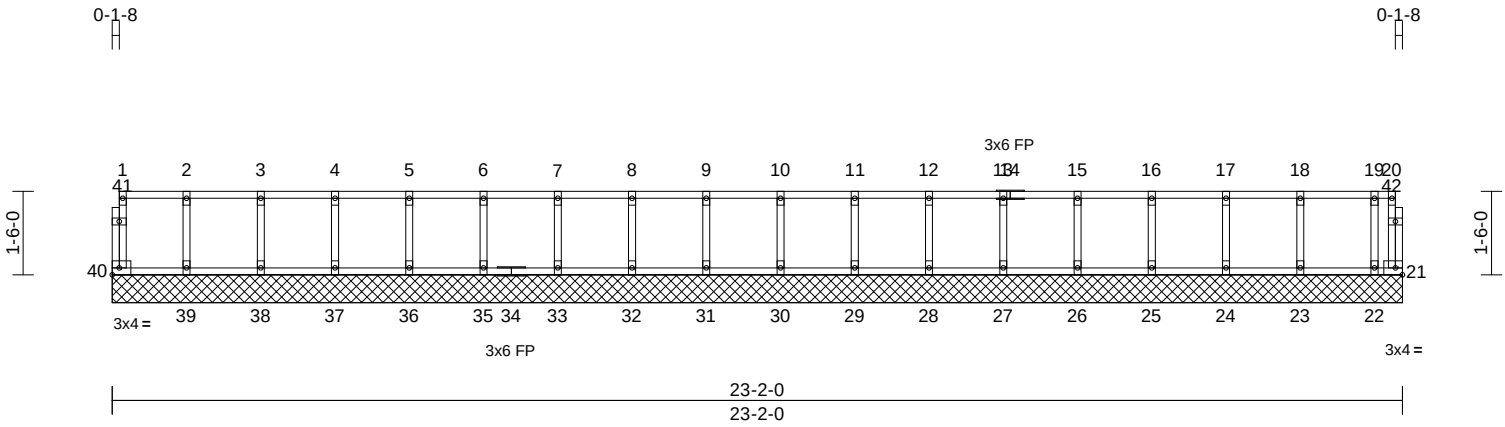
May 02, 2025

Galinski, John

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres
J0425-1936	ET-1	Floor Supported Gable	1	1	I73174738 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu May 01 12:13:50 ID:qEFpDJE2R3ucA6TVKlMTqEznxVt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:41.4

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	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	21	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 107 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 (size) 21=23-2-0, 22=23-2-0, 23=23-2-0, 24=23-2-0, 25=23-2-0, 26=23-2-0, 27=23-2-0, 28=23-2-0, 29=23-2-0, 30=23-2-0, 31=23-2-0, 32=23-2-0, 33=23-2-0, 35=23-2-0, 36=23-2-0, 37=23-2-0, 38=23-2-0, 39=23-2-0, 40=23-2-0
Max Grav 21=4 (LC 1), 22=99 (LC 1), 23=153 (LC 1), 24=145 (LC 1), 25=147 (LC 1), 26=147 (LC 1), 27=147 (LC 1), 28=147 (LC 1), 29=147 (LC 1), 30=147 (LC 1), 31=147 (LC 1), 32=147 (LC 1), 33=147 (LC 1), 35=147 (LC 1), 36=147 (LC 1), 37=147 (LC 1), 38=147 (LC 1), 39=147 (LC 1), 40=53 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-40=-49/0, 20-21=0/5, 1-2=-5/0, 2-3=-5/0, 3-4=-5/0, 4-5=-5/0, 5-6=-5/0, 6-7=-5/0, 7-8=-5/0, 8-9=-5/0, 9-10=-5/0, 10-11=-5/0, 11-12=-5/0, 12-13=-5/0, 13-15=-5/0, 15-16=-5/0, 16-17=-5/0, 17-18=-5/0, 18-19=-5/0, 19-20=-5/0
BOT CHORD 39-40=0/5, 38-39=0/5, 37-38=0/5, 36-37=0/5, 35-36=0/5, 33-35=0/5, 32-33=0/5, 31-32=0/5, 30-31=0/5, 29-30=0/5, 28-29=0/5, 27-28=0/5, 26-27=0/5, 25-26=0/5, 24-25=0/5, 23-24=0/5, 22-23=0/5, 21-22=0/5
WEBS 2-39=-132/0, 3-38=-134/0, 4-37=-133/0, 5-36=-133/0, 6-35=-133/0, 7-33=-133/0, 8-32=-133/0, 9-31=-133/0, 10-30=-133/0, 11-29=-133/0, 12-28=-133/0, 13-27=-133/0, 15-26=-133/0, 16-25=-134/0, 17-24=-132/0, 18-23=-139/0, 19-22=-99/0

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) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres
J0425-1936	ET-2	Floor Supported Gable	1	1	I73174739 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu May 01 12:13:51 Page: 1
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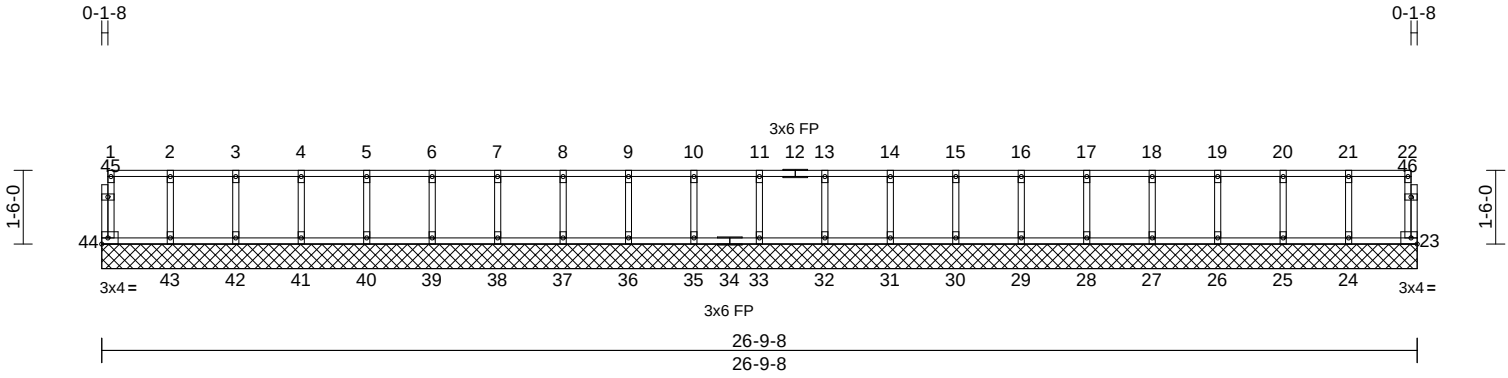

Scale = 1:46.9

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	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	23	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 122 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 (size) 23=26-9-8, 24=26-9-8, 25=26-9-8, 26=26-9-8, 27=26-9-8, 28=26-9-8, 29=26-9-8, 30=26-9-8, 31=26-9-8, 32=26-9-8, 33=26-9-8, 35=26-9-8, 36=26-9-8, 37=26-9-8, 38=26-9-8, 39=26-9-8, 40=26-9-8, 41=26-9-8, 42=26-9-8, 43=26-9-8, 44=26-9-8
Max Grav 23=60 (LC 1), 24=147 (LC 1), 25=147 (LC 1), 26=147 (LC 1), 27=147 (LC 1), 28=147 (LC 1), 29=147 (LC 1), 30=147 (LC 1), 31=147 (LC 1), 32=147 (LC 1), 33=147 (LC 1), 35=147 (LC 1), 36=147 (LC 1), 37=147 (LC 1), 38=147 (LC 1), 39=147 (LC 1), 40=147 (LC 1), 41=147 (LC 1), 42=147 (LC 1), 43=147 (LC 1), 44=60 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-44=-54/0, 22-23=-54/0, 1-2=-8/0, 2-3=-8/0, 3-4=-8/0, 4-5=-8/0, 5-6=-8/0, 6-7=-8/0, 7-8=-8/0, 8-9=-8/0, 9-10=-8/0, 10-11=-8/0, 11-13=-8/0, 13-14=-8/0, 14-15=-8/0, 15-16=-8/0, 16-17=-8/0, 17-18=-8/0, 18-19=-8/0, 19-20=-8/0, 20-21=-8/0, 21-22=-8/0
BOT CHORD 43-44=0/8, 42-43=0/8, 41-42=0/8, 40-41=0/8, 39-40=0/8, 38-39=0/8, 37-38=0/8, 36-37=0/8, 35-36=0/8, 33-35=0/8, 32-33=0/8, 31-32=0/8, 30-31=0/8, 29-30=0/8, 28-29=0/8, 27-28=0/8, 26-27=0/8, 25-26=0/8, 24-25=0/8, 23-24=0/8
WEBS 11-33=-133/0, 10-35=-133/0, 9-36=-133/0, 8-37=-133/0, 7-38=-133/0, 6-39=-133/0, 5-40=-133/0, 4-41=-133/0, 3-42=-133/0, 2-43=-134/0, 13-32=-133/0, 14-31=-133/0, 15-30=-133/0, 16-29=-133/0, 17-28=-133/0, 18-27=-133/0, 19-26=-133/0, 20-25=-133/0, 21-24=-134/0

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) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	
J0425-1936	ET-3	Floor Supported Gable	1	1	Job Reference (optional)	I73174740

Comtech, Inc, Fayetteville, NC - 28314, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu May 01 12:13:51 Page: 1
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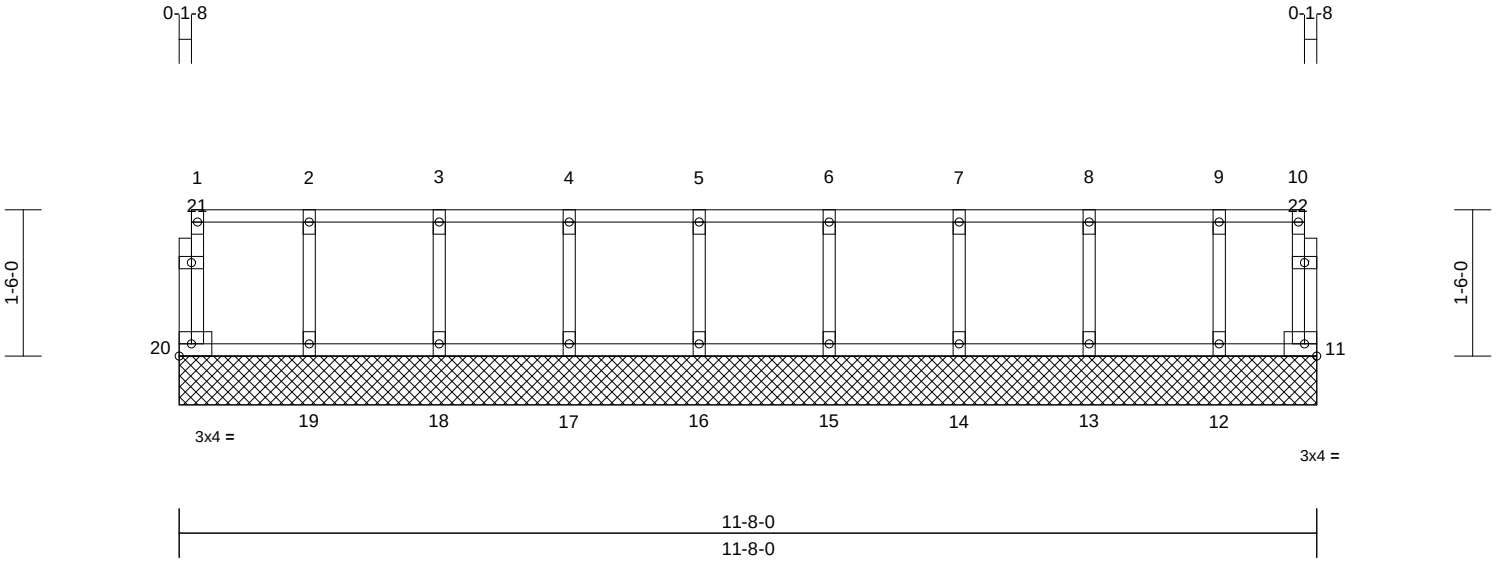


Scale = 1:23.6

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(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 56 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 (size) 11=11-8-0, 12=11-8-0, 13=11-8-0, 14=11-8-0, 15=11-8-0, 16=11-8-0, 17=11-8-0, 18=11-8-0, 19=11-8-0, 20=11-8-0
Max Grav 11=37 (LC 1), 12=122 (LC 1), 13=152 (LC 1), 14=145 (LC 1), 15=147 (LC 1), 16=147 (LC 1), 17=147 (LC 1), 18=147 (LC 1), 19=146 (LC 1), 20=53 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-20=-49/0, 10-11=-31/0, 1-2=-5/0, 2-3=-5/0, 3-4=-5/0, 4-5=-5/0, 5-6=-5/0, 6-7=-5/0, 7-8=-5/0, 8-9=-5/0, 9-10=-5/0
BOT CHORD 19-20=0/5, 18-19=0/5, 17-18=0/5, 16-17=0/5, 15-16=0/5, 14-15=0/5, 13-14=0/5, 12-13=0/5, 11-12=0/5
WEBS 2-19=-132/0, 3-18=-134/0, 4-17=-133/0, 5-16=-133/0, 6-15=-134/0, 7-14=-132/0, 8-13=-138/0, 9-12=-113/0

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) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

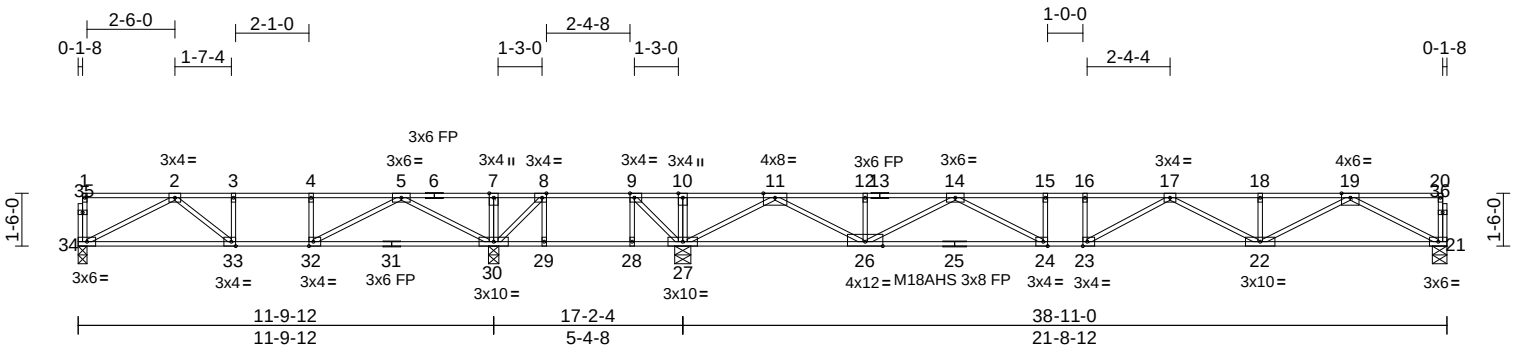
May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	
J0425-1936	F1	Floor	1	1	Job Reference (optional)	I73174741

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu May 01 12:13:51 ID:uxEl4t1RuLCF5FWBBcXxV8znxUr-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:65.5

Plate Offsets (X, Y): [8:0-1-8,Edge], [9:0-1-8,Edge], [23:0-1-8,Edge], [24:0-1-8,Edge], [32:0-1-8,Edge], [33:0-1-8,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	0.75	Vert(LL)	-0.34	22-23	>756	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.80	Vert(CT)	-0.48	22-23	>541	240	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.07	21	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 198 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 6-0-0 oc bracing.

REACTIONS (size) 21=0-5-0, 27=0-5-8, 30=0-3-8, 34=0-3-0
Max Grav 21=1078 (LC 11), 27=1709 (LC 14), 30=1022 (LC 13), 34=549 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-34=-105/0, 20-21=-103/0, 1-2=-5/0, 2-3=-999/200, 3-4=-999/200, 4-5=-999/200, 5-7=0/1602, 7-8=0/1598, 8-9=0/1609, 9-10=0/1972, 10-11=0/1974, 11-12=-2213/0, 12-14=-2213/0, 14-15=-3866/0, 15-16=-3866/0, 16-17=-3866/0, 17-18=-3063/0, 18-19=-3063/0, 19-20=-5/0

BOT CHORD 33-34=-26/812, 32-33=-200/999, 30-32=-702/407, 29-30=-1609/0, 28-29=-1609/0, 27-28=-1609/0, 26-27=-148/592, 24-26=0/3272, 23-24=0/3866, 22-23=0/3733, 21-22=0/1827

WEBS 10-27=-164/0, 8-30=-255/252, 9-27=-633/0, 8-29=-91/0, 9-28=0/119, 5-30=-1421/0, 2-34=-912/31, 5-32=0/959, 2-33=-225/241, 3-33=-130/123, 4-32=-366/0, 11-27=-2493/0, 19-21=-2057/0, 11-26=0/1895, 19-22=0/1403, 12-26=-255/0, 18-22=-240/0, 14-26=-1258/0, 17-22=-760/0, 14-24=0/930, 17-23=-286/475, 15-24=-290/0, 16-23=-157/47, 7-30=-277/0

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 1.5x3 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres
J0425-1936	F2	Floor	6	1	I73174742
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

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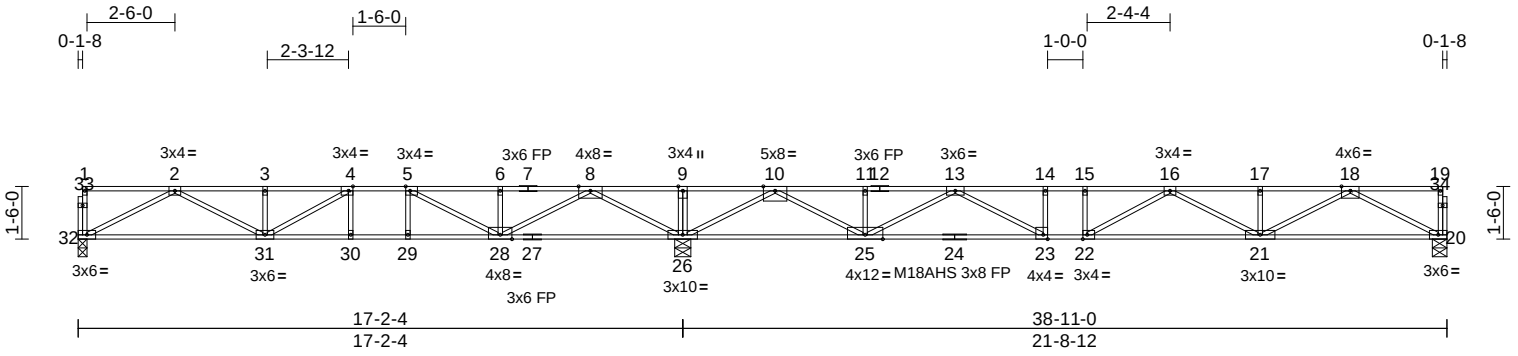


Scale = 1:65.5

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [22:0-1-8,Edge], [23:0-1-8,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	0.82	Vert(LL)	-0.33	21-22	>787	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.46	21-22	>567	240	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.06	20	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 199 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 6-0-0 oc bracing.

REACTIONS (size) 20=0-5-0, 26=0-5-8, 32=0-3-0
Max Grav 20=1029 (LC 4), 26=2585 (LC 1), 32=800 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-32=-106/0, 19-20=-103/0, 1-2=-5/0, 2-3=-2028/12, 3-4=-2028/12, 4-5=-2093/400, 5-6=-1356/1005, 6-8=-1356/1005, 8-9=0/3089, 9-10=0/3089, 10-11=-1620/294, 11-13=-1620/294, 13-14=-3481/0, 14-15=-3481/0, 15-16=-3481/0, 16-17=-2878/0, 17-18=-2878/0, 18-19=-5/0
BOT CHORD 31-32=0/1294, 30-31=-400/2093, 29-30=-400/2093, 28-29=-400/2093, 26-28=-1627/161, 25-26=-979/0, 23-25=0/2773, 22-23=0/3481, 21-22=0/3456, 20-21=0/1734
WEBS 9-26=-281/0, 8-26=-2199/0, 2-32=-1456/0, 8-28=0/1605, 2-31=-57/833, 6-28=-248/31, 3-31=-341/0, 5-28=-1281/0, 4-31=-74/563, 4-30=-235/0, 5-29=0/255, 10-26=-2621/0, 18-20=-1952/0, 10-25=0/2047, 18-21=0/1299, 11-25=-264/0, 17-21=-237/0, 13-25=-1411/0, 16-21=-655/0, 13-23=0/1097, 16-22=-445/296, 14-23=-341/0, 15-22=-99/99

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 1.5x3 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 32.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

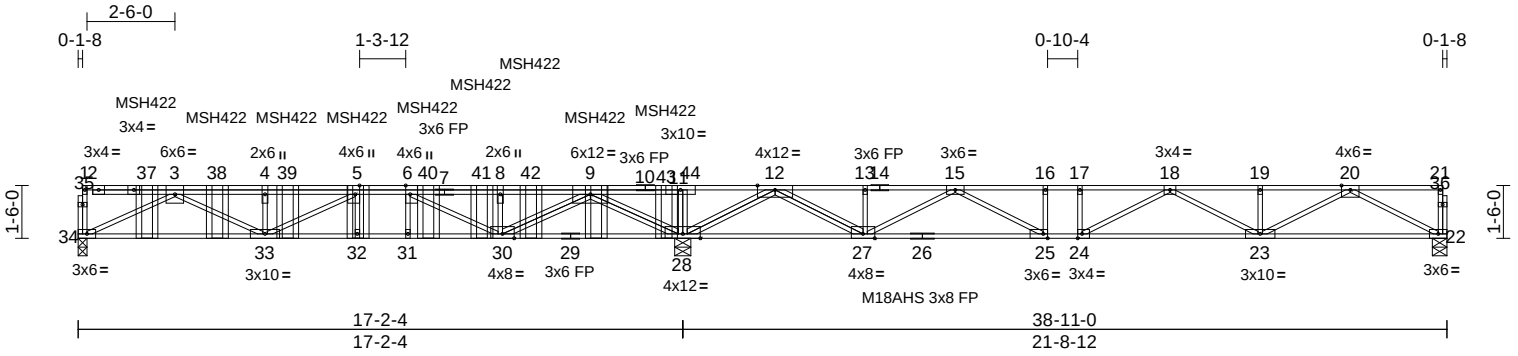
May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	
J0425-1936	F2G	Floor Girder	1	1	Job Reference (optional)	I73174743

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu May 01 12:13:51 ID:iyS1TdawOZHwPv336bjkfEznxJo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:65.5

Plate Offsets (X, Y): [5:0-3-0,Edge], [6:0-3-0,Edge], [24:0-1-8,Edge], [25:0-1-8,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	0.68	Vert(LL)	-0.26	23-24	>992	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.47	Vert(CT)	-0.36	23-24	>719	240	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	NO	WB	0.60	Horz(CT)	0.05	22	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 239 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(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 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 24-25,23-24,22-23.

REACTIONS (size) 22=0-5-0, 28=0-5-8, 34=0-3-0
Max Uplift 34=-118 (LC 18)
Max Grav 22=1010 (LC 18), 28=3274 (LC 8), 34=1080 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-34=-130/0, 21-22=-103/0, 1-3=-11/0, 3-4=-2961/540, 4-5=-2961/540, 5-6=-3082/970, 6-8=-2043/1423, 8-9=-2011/1425, 9-11=0/4085, 11-12=0/4118, 12-13=-1357/581, 13-15=-1370/577, 15-16=-3334/0, 16-17=-3334/0, 17-18=-3334/0, 18-19=-2808/0, 19-20=-2808/0, 20-21=-5/0
BOT CHORD 33-34=-300/1864, 32-33=-970/3082, 31-32=-970/3082, 30-31=-970/3082, 28-30=-1980/324, 27-28=-1775/0, 25-27=-107/2586, 24-25=0/3334, 23-24=0/3354, 22-23=0/1699
WEBS 11-28=-357/0, 9-28=-3592/0, 3-34=-2077/336, 9-30=0/2403, 3-33=-270/1233, 8-30=-573/15, 4-33=-506/8, 6-30=-1538/0, 5-33=-193/649, 5-32=-75/5, 6-31=0/99, 12-28=-2948/0, 20-22=-1912/0, 12-27=0/2123, 20-23=0/1258, 13-27=-271/0, 19-23=-235/0, 15-27=-1549/0, 18-23=-620/24, 15-25=0/1230, 18-24=-601/262, 16-25=-377/0, 17-24=-78/136

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 1.5x3 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 34. This connection is for uplift only and does not consider lateral forces.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
8) CAUTION, Do not erect truss backwards.
9) Use MiTek MSH422 (With 10d nails into Girder & 6-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-11-8 from the left end to 16-8-12 to connect truss(es) to back face of top chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) 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 (lb/ft)
Vert: 22-34=-10, 1-21=-100
Concentrated Loads (lb)
Vert: 9=-95 (B), 5=-1 (B), 37=-1 (B), 38=-1 (B), 39=-1 (B), 40=-1 (B), 41=-104 (B), 42=-95 (B), 43=-95 (B)

May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres
J0425-1936	F4	Floor	5	1	I73174744
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

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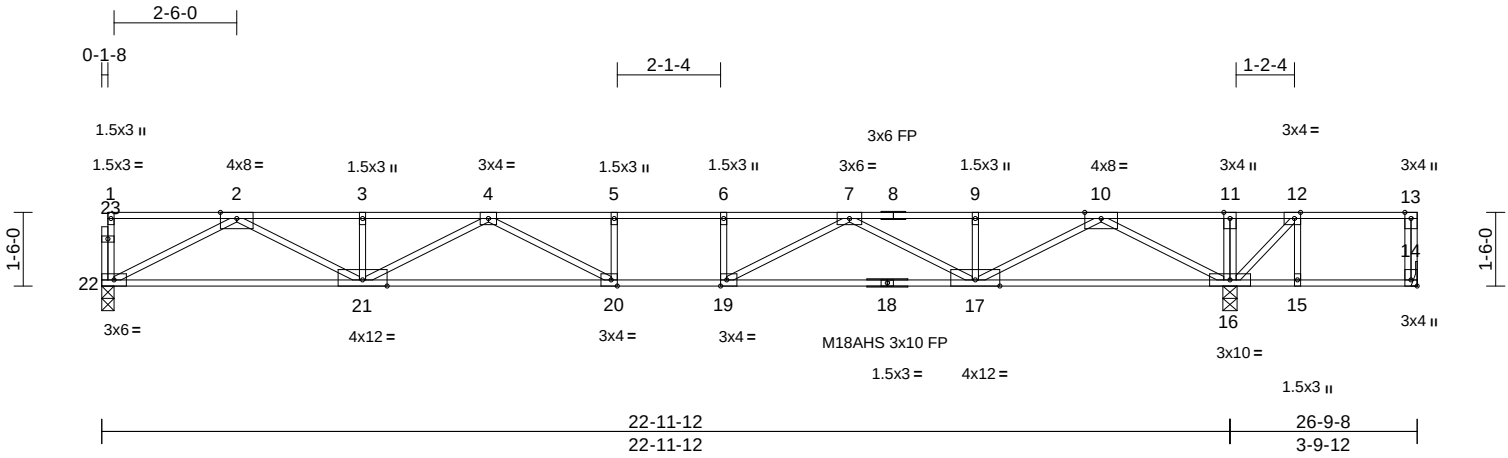

Scale = 1:46.9

Plate Offsets (X, Y): [12:0-1-8,Edge], [14: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	0.61	Vert(LL)	-0.44	20-21	>625	360	M18AHS	186/179
TCDL	10.0	Lumber DOL	1.00	BC	0.62	Vert(CT)	-0.59	20-21	>461	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.09	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 135 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E(flat)
BOT CHORD	2x4 SP 2400F 2.0E(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 (size) 14= Mechanical, 16=0-3-8, 22=0-3-0
Max Uplift 14=-44 (LC 3)
Max Grav 14=91 (LC 4), 16=1655 (LC 1), 22=1233 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-22=-103/0, 13-14=-87/17, 1-2=-5/0, 2-3=-3645/0, 3-4=-3645/0, 4-5=-5053/0, 5-6=-5053/0, 6-7=-5053/0, 7-9=-3482/0, 9-10=-3482/0, 10-11=0/418, 11-12=0/415, 12-13=0/0
BOT CHORD	21-22=0/2121, 20-21=0/4602, 19-20=0/5053, 17-19=0/4506, 16-17=0/1892, 15-16=0/0, 14-15=0/0
WEBS	11-16=-126/0, 10-16=-2429/0, 2-22=-2389/0, 10-17=0/1827, 2-21=0/1730, 9-17=-252/0, 3-21=-243/0, 7-17=-1186/0, 4-21=-1086/0, 7-19=0/1017, 4-20=-71/865, 5-20=-295/0, 6-19=-341/0, 12-16=-582/0, 12-15=0/111

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 1.5x3 MT20 unless otherwise indicated.
4) The Fabrication Tolerance at joint 18 = 11%
5) Plates checked for a plus or minus 1 degree rotation about its center.
6) Bearings are assumed to be: Joint 22 SP 2400F 2.0E crushing capacity of 805 psi, Joint 16 SP 2400F 2.0E crushing capacity of 805 psi.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 14.
9) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
10) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I73174745
J0425-1936	F5	Floor	3	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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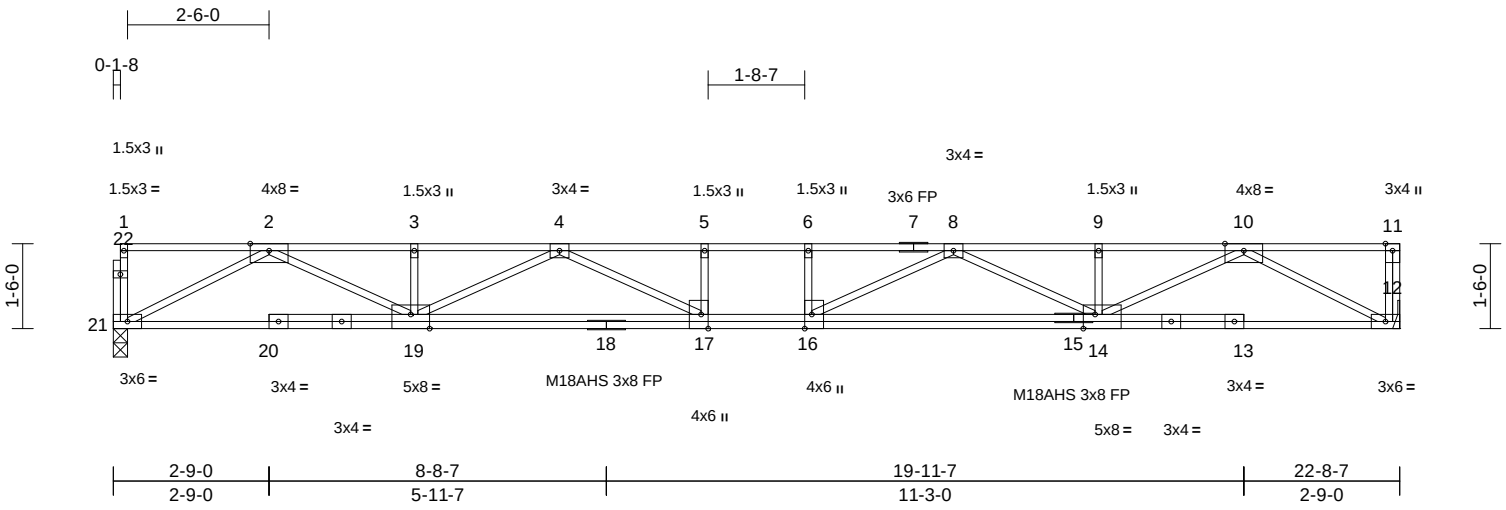

Scale = 1:40.7

Plate Offsets (X, Y): [14:0-2-8,Edge], [16:0-3-0,Edge], [17:0-3-0,Edge], [19:0-4-0,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	0.39	Vert(LL)	-0.32	16-17	>835	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.33	Vert(CT)	-0.44	16-17	>609	240	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.06	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 140 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(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 (size) 12= Mechanical, 21=0-3-0
Max Grav 12=1235 (LC 1), 21=1229 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 11-12=-105/0, 1-21=-103/0, 1-2=-5/0, 2-3=-3752/0, 3-4=-3752/0, 4-5=-5251/0, 5-6=-5251/0, 6-8=-5251/0, 8-9=-3751/0, 9-10=-3751/0, 10-11=0/0
BOT CHORD 19-21=0/2140, 17-19=0/4771, 16-17=0/5251, 14-16=0/4771, 12-14=0/2142
WEBS 10-12=-2418/0, 2-21=-2411/0, 10-14=0/1808, 2-19=0/1811, 9-14=-236/0, 3-19=-238/0, 8-14=-1145/0, 4-19=-1145/0, 8-16=0/865, 4-17=0/865, 5-17=-208/0, 6-16=-208/0

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) Bearings are assumed to be: Joint 21 SP 2400F 2.0E crushing capacity of 805 psi.
5) Refer to girder(s) for truss to truss connections.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	
J0425-1936	F6	Floor	5	1	Job Reference (optional)	I73174746

Comtech, Inc, Fayetteville, NC - 28314,

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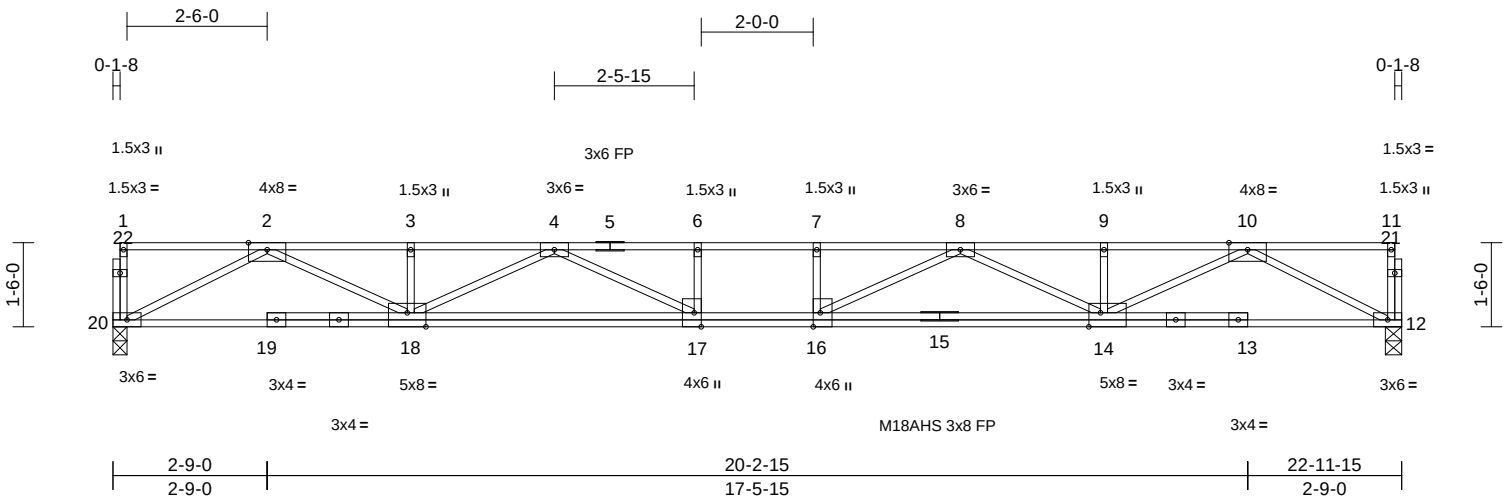

Scale = 1:41.1

Plate Offsets (X, Y): [14:0-2-8,Edge], [16:0-3-0,Edge], [17:0-3-0,Edge], [18:0-4-0,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	0.40	Vert(LL)	-0.34	16-17	>808	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.36	Vert(CT)	-0.46	16-17	>589	240	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.06	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 140 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(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 (size) 12=0-3-8, 20=0-3-0
Max Grav 12=1245 (LC 1), 20=1245 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 11-12=-103/0, 1-20=-103/0, 1-2=-5/0, 2-3=-3815/0, 3-4=-3815/0, 4-6=-5379/0, 6-7=-5379/0, 7-8=-5379/0, 8-9=-3815/0, 9-10=-3815/0, 10-11=-5/0
BOT CHORD 18-20=0/2171, 17-18=0/4863, 16-17=0/5379, 14-16=0/4863, 12-14=0/2171
WEBS 10-12=-2445/0, 2-20=-2445/0, 10-14=0/1847, 2-18=0/1847, 9-14=-238/0, 3-18=-239/0, 8-14=-1178/0, 4-18=-1178/0, 8-16=0/917, 4-17=0/916, 6-17=-225/0, 7-16=-225/0

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 1.5x3 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I73174747
J0425-1936	F7	Floor	3	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu May 01 12:13:52 Page: 1
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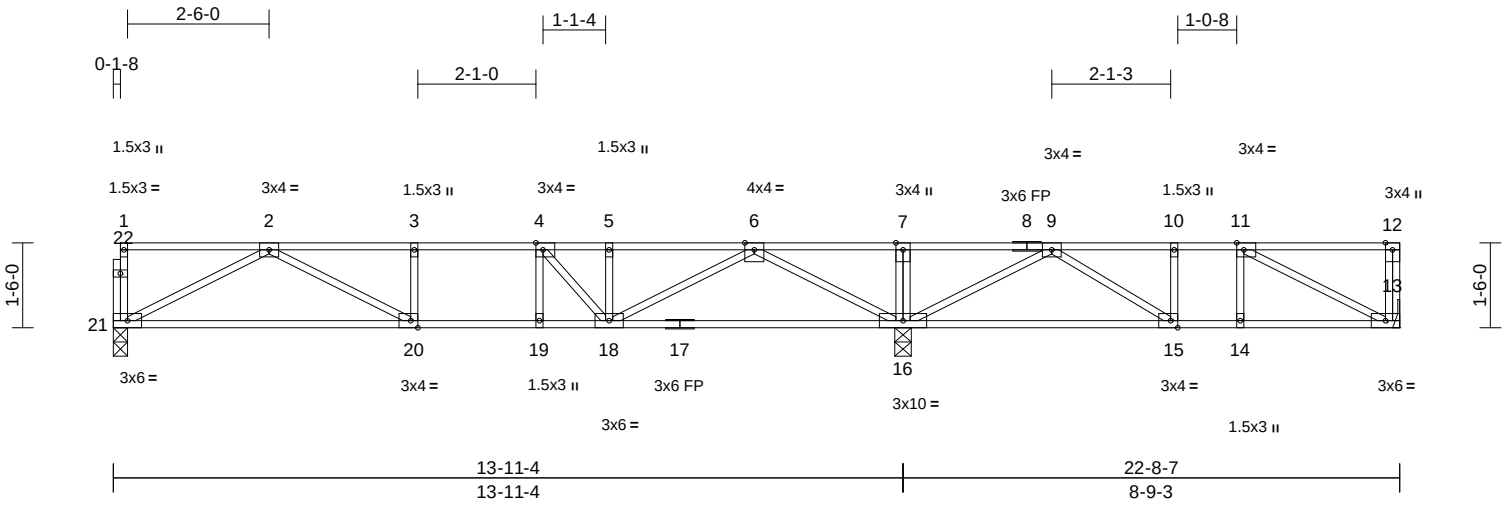

Scale = 1:40.7

Plate Offsets (X, Y): [4:0-1-8,Edge], [11:0-1-8,Edge], [15:0-1-8,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	0.43	Vert(LL)	-0.12	20-21	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.49	Vert(CT)	-0.20	20-21	>845	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.02	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 119 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 6-0-0 oc bracing.

REACTIONS (size) 13= Mechanical, 16=0-3-8, 21=0-3-0
Max Grav 13=421 (LC 7), 16=1459 (LC 1), 21=689 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 12-13=-126/0, 1-21=-101/0, 1-2=-5/0, 2-3=-1580/0, 3-4=-1580/0, 4-5=-1416/0, 5-6=-1416/0, 6-7=0/956, 7-9=0/956, 9-10=-591/69, 10-11=-591/69, 11-12=0/0
BOT CHORD 20-21=0/1083, 19-20=0/1580, 18-19=0/1580, 16-18=0/683, 15-16=-327/428, 14-15=-69/591, 13-14=-69/591
WEBS 6-16=-1489/0, 2-21=-1217/0, 6-18=0/894, 2-20=0/564, 5-18=-206/57, 3-20=-221/0, 4-18=-477/0, 4-19=-48/91, 9-16=-1022/0, 11-13=-664/77, 9-15=0/457, 10-15=-173/0, 11-14=-62/26, 7-16=-277/0

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) Bearings are assumed to be: Joint 21 SP No.1 crushing capacity of 565 psi, Joint 16 SP No.1 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	
J0425-1936	F8	Floor	1	1	Job Reference (optional)	I73174748

Comtech, Inc, Fayetteville, NC - 28314,

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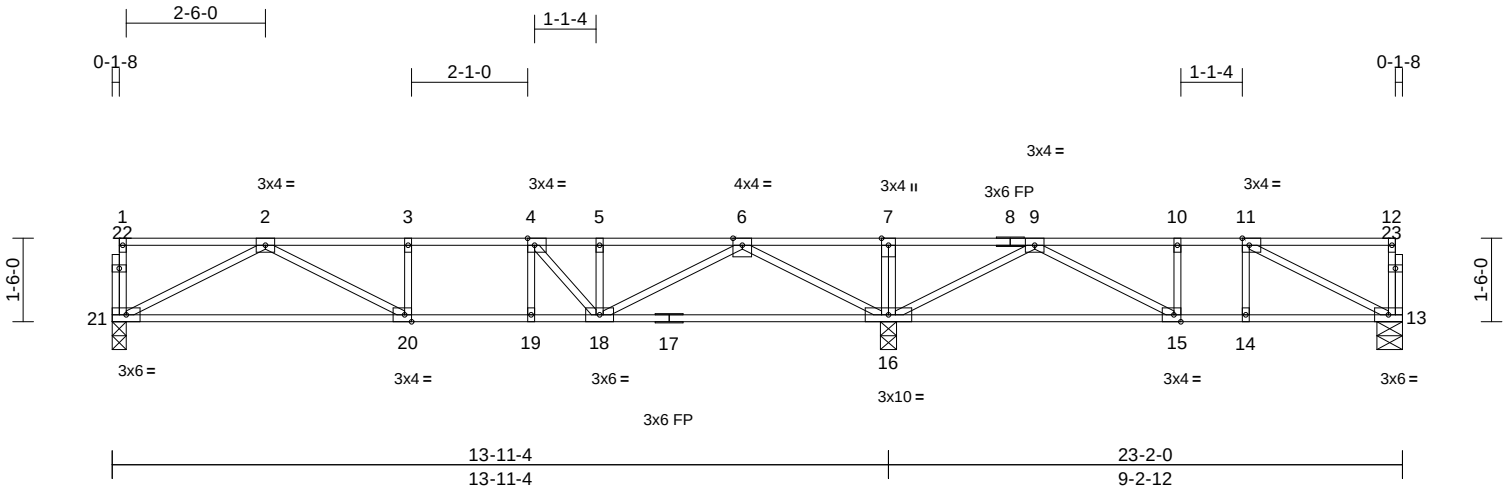


Scale = 1:41.4

Plate Offsets (X, Y): [4:0-1-8,Edge], [11:0-1-8,Edge], [15:0-1-8,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	0.45	Vert(LL)	-0.12	20-21	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.51	Vert(CT)	-0.20	20-21	>816	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.02	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 120 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 6-0-0 oc bracing.

REACTIONS (size) 13=0-5-8, 16=0-3-8, 21=0-3-0
Max Grav 13=429 (LC 7), 16=1498 (LC 1), 21=687 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-21=-101/0, 12-13=-123/0, 1-2=-5/0, 2-3=-1571/0, 3-4=-1571/0, 4-5=-1402/0, 5-6=-1402/0, 6-7=0/1031, 7-9=0/1031, 9-10=-631/45, 10-11=-631/45, 11-12=-6/0
BOT CHORD	20-21=0/1079, 19-20=0/1571, 18-19=0/1571, 16-18=-61/667, 15-16=-335/413, 14-15=-45/631, 13-14=-45/631
WEBS	6-16=-1506/0, 2-21=-1213/0, 6-18=0/906, 2-20=0/558, 5-18=-200/64, 3-20=-220/0, 4-18=-505/0, 4-19=-39/102, 9-16=-1087/0, 11-13=-704/52, 9-15=0/519, 10-15=-187/0, 11-14=-54/42, 7-16=-270/0

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) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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

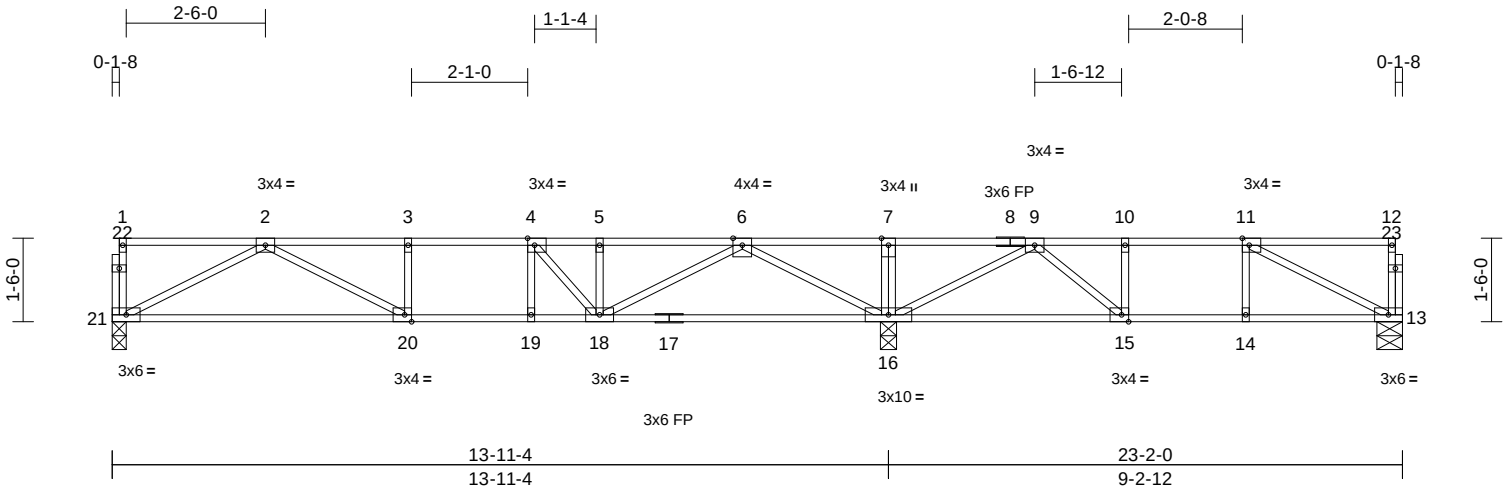
May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I73174749
J0425-1936	F9	Floor	2	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu May 01 12:13:52 Page: 1
ID:4Hp2Hu9rkpzSo0CQqtcb?rznxMx-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:41.4

Plate Offsets (X, Y): [4:0-1-8,Edge], [11:0-1-8,Edge], [15:0-1-8,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	0.44	Vert(LL)	-0.12	20-21	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.50	Vert(CT)	-0.20	20-21	>835	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.03	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 119 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, Except: 6-0-0 oc bracing: 16-18,15-16.

REACTIONS (size) 13=0-5-8, 16=0-3-8, 21=0-3-0
Max Grav 13=439 (LC 7), 16=1450 (LC 9), 21=710 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-21=-102/0, 12-13=-123/0, 1-2=-5/0, 2-3=-1673/0, 3-4=-1673/0, 4-5=-1552/0, 5-6=-1552/0, 6-7=0/811, 7-9=0/811, 9-10=-637/0, 10-11=-637/0, 11-12=-6/0
BOT CHORD	20-21=0/1124, 19-20=0/1673, 18-19=0/1673, 16-18=-6/854, 15-16=-183/445, 14-15=0/637, 13-14=0/637
WEBS	6-16=-1470/0, 2-21=-1263/0, 6-18=0/882, 2-20=0/623, 5-18=-221/59, 3-20=-239/0, 4-18=-484/0, 4-19=-69/93, 9-16=-991/0, 11-13=-710/0, 9-15=0/436, 10-15=-220/0, 11-14=-25/29, 7-16=-285/0

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) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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

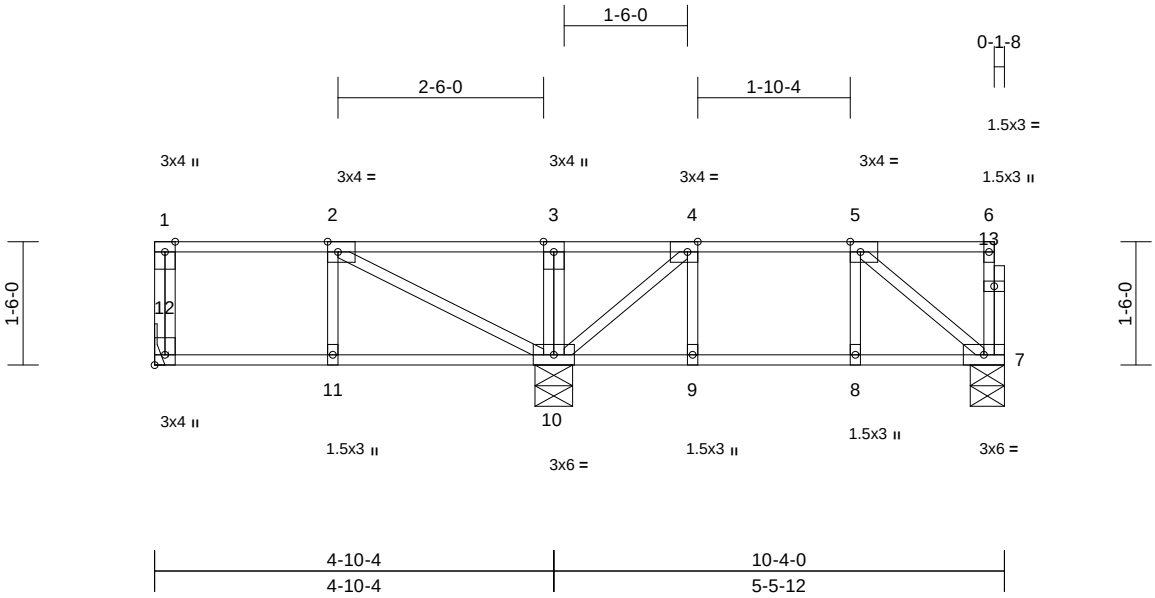
May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I73174750
J0425-1936	F10	Floor	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu May 01 12:13:52 ID:GkZTQNDvRLkFasZc_jRUhPznx0u-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28

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

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	0.49	Vert(LL)	-0.07	10-11	>832	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.37	Vert(CT)	-0.09	10-11	>635	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 57 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 6-0-0 oc bracing.

REACTIONS (size) 7=0-5-0, 10=0-5-8, 12= Mechanical
Max Uplift 7=-44 (LC 3)
Max Grav 7=256 (LC 4), 10=819 (LC 1), 12=122 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-12=-98/0, 6-7=-106/0, 1-2=0/0, 2-3=0/460, 3-4=0/457, 4-5=-207/169, 5-6=-5/0
BOT CHORD	11-12=0/0, 10-11=0/0, 9-10=-169/207, 8-9=-169/207, 7-8=-169/207
WEBS	3-10=-211/0, 2-10=-518/0, 2-11=-13/18, 4-10=-604/0, 5-7=-263/220, 4-9=0/135, 5-8=-101/0

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Bearings are assumed to be: , Joint 10 SP No.1 crushing capacity of 565 psi, Joint 7 SP No.1 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

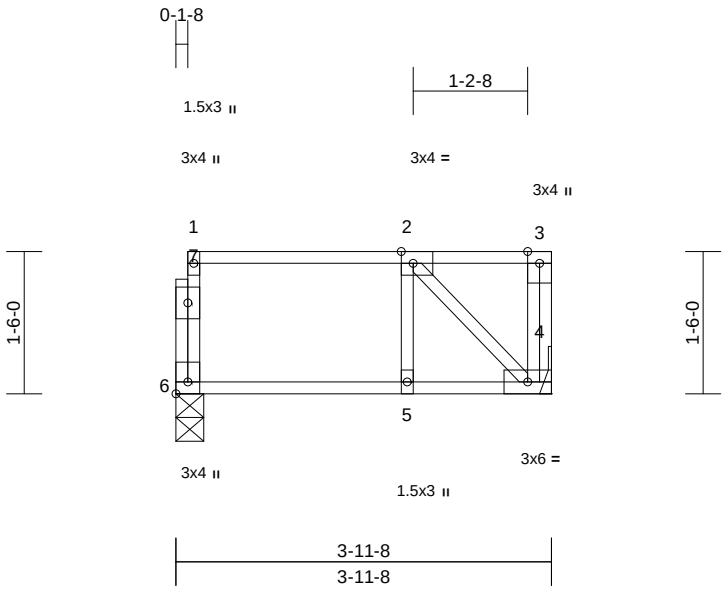
May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres
J0425-1936	F11	Floor	1	1	I73174751
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu May 01 12:13:52 Page: 1
ID:q22A23cukkAiG9D?6X?2mAzOCdn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:24.3

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

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	0.47	Vert(LL)	-0.10	5-6	>459	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.51	Vert(CT)	-0.13	5-6	>331	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 23 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 3-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6=0-3-8
Max Grav 4=204 (LC 1), 6=198 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-142/0, 3-4=-116/0, 1-2=-6/0, 2-3=0/0
BOT CHORD 5-6=0/6, 4-5=0/6
WEBS 2-4=-9/0, 2-5=-100/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Bearings are assumed to be: Joint 6 SP No.1 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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

May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I73174752
J0425-1936	F12	Floor	2	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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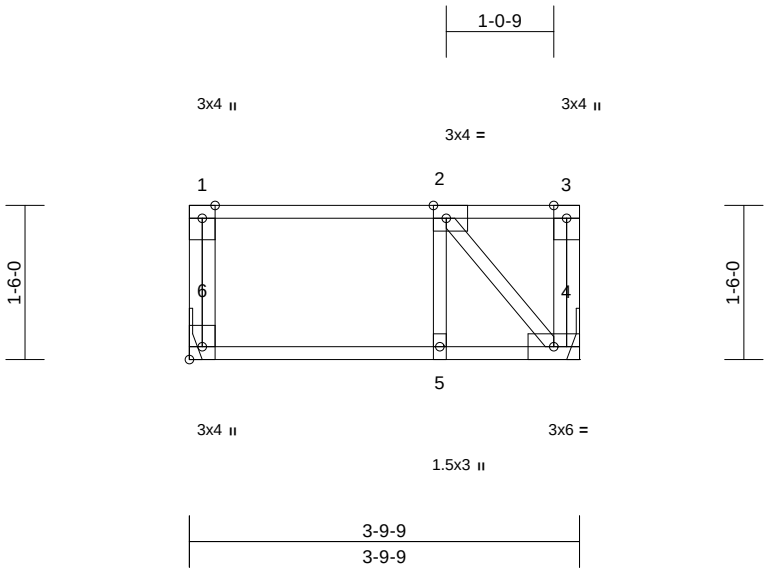

Scale = 1:22.4

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

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	0.46	Vert(LL)	-0.09	5-6	>493	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.50	Vert(CT)	-0.12	5-6	>356	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 23 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 3-9-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6= Mechanical
Max Grav 4=195 (LC 1), 6=195 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-140/0, 3-4=-107/0, 1-2=0/0, 2-3=0/0
BOT CHORD 5-6=0/0, 4-5=0/0
WEBS 2-4=0/0, 2-5=-108/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	I73174753
J0425-1936	FG	Floor Girder	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu May 01 12:13:52 Page: 1
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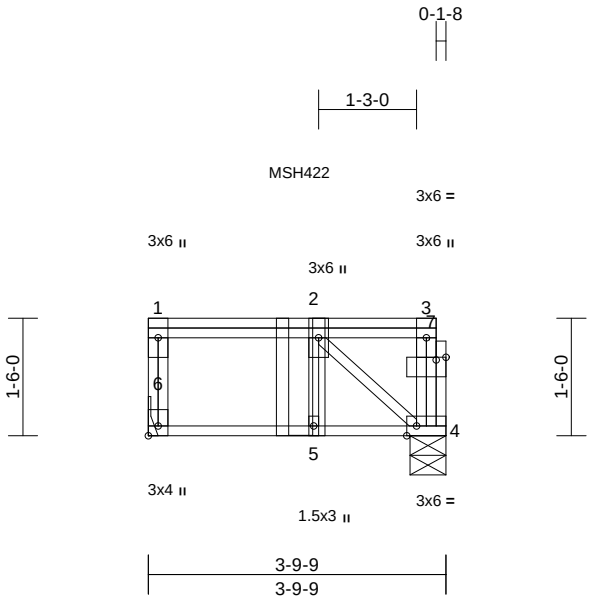

Scale = 1:29.4

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

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	0.36	Vert(LL)	-0.04	5-6	>948	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.25	Vert(CT)	-0.06	5-6	>730	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 29 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 3-9-9 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-5-8, 6= Mechanical
Max Grav 4=240 (LC 4), 6=240 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-6=-206/0, 3-4=-221/0, 1-2=0/0, 2-3=-21/0
BOT CHORD	5-6=0/0, 4-5=0/0
WEBS	2-4=0/27, 2-5=-36/0

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Bearings are assumed to be: , Joint 4 SP No.1 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
7) Use MiTek MSH422 (With 10d nails into Girder & 6-10d nails into Truss) or equivalent at 1-11-5 from the left end to connect truss(es) to back face of top chord.
8) Fill all nail holes where hanger is in contact with lumber.
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 (lb/ft)
Vert: 4-6=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 2=-22 (B)

May 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 21 Turlington Acres	
J0425-1936	FG2	Floor Girder	1	1	Job Reference (optional)	I73174754

Comtech, Inc, Fayetteville, NC - 28314,

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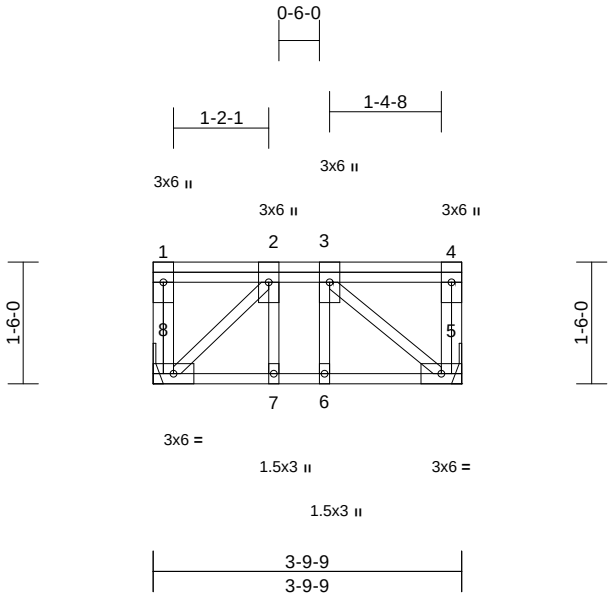


Scale = 1:28.4

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	0.05	Vert(LL)	0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.04	Vert(CT)	0.00	5-6	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 32 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 3-9-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Grav 5=195 (LC 1), 8=195 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-65/0, 4-5=-77/0, 1-2=0/0, 2-3=-138/0, 3-4=0/0
BOT CHORD 7-8=0/138, 6-7=0/138, 5-6=0/138
WEBS 3-5=-180/0, 2-8=-191/0, 2-7=0/23, 3-6=-1/20

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

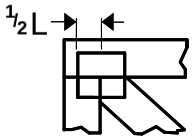
LOAD CASE(S) Standard

May 2,2025

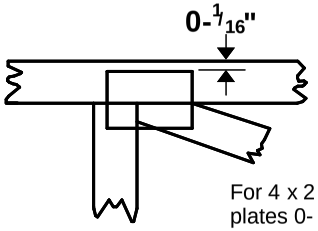
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

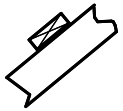
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

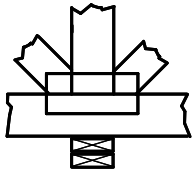
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

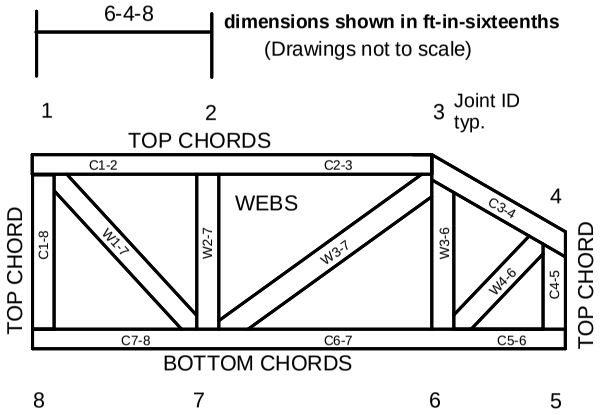


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.