ENGINEERING BY TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

RE: 2501-0733-A - The Farm at Neills Creek Lot 00.0064 OWF

Site Information:

Project Customer: DRB Raleigh Project Name: The Farm at Neills Creek Lot 00.0064
Lot/Block: 00.0064 Subdivision: The Farm at Neills Creek
Model: Millhaven
Address: 401 Winding Creek Dr
City: Lillington State: NC

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

Design Code: IRC2021/TPI2014
Wind Code: ASCE 7-16
Wind Speed: 115 mph
Roof Load: 40.0 psf
Mean Roof Height (feet): 25

Design Program: MiTek 20/20 8.8
Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16
Floor Load: N/A psf

Exposure Category: B

No.	Seal#	Truss Name	Date
1	I71018469	2F5	1/27/25
2	I71018470	2F4	1/27/25
3		2F6	1/27/25
4	I71018472	2F2GE	1/27/25
5	I71018473	2F1GE	1/27/25
6	I71018474	1F1	1/27/25
7	I71018475	2F1A	1/27/25
8	I71018476	2F2	1/27/25
9	I71018477	2F2A	1/27/25
10	I71018478	2F2B	1/27/25
11	I71018479	2F3	1/27/25

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

Truss Design Engineer's Name: Gilbert, Eric
My license renewal date for the state of North Carolina is December 31, 2025.

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

January 27,2025
Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0064 OWF
2501-0733-A	2F5	Floor	1	1	I71018469 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 11:41:30 Page: 1
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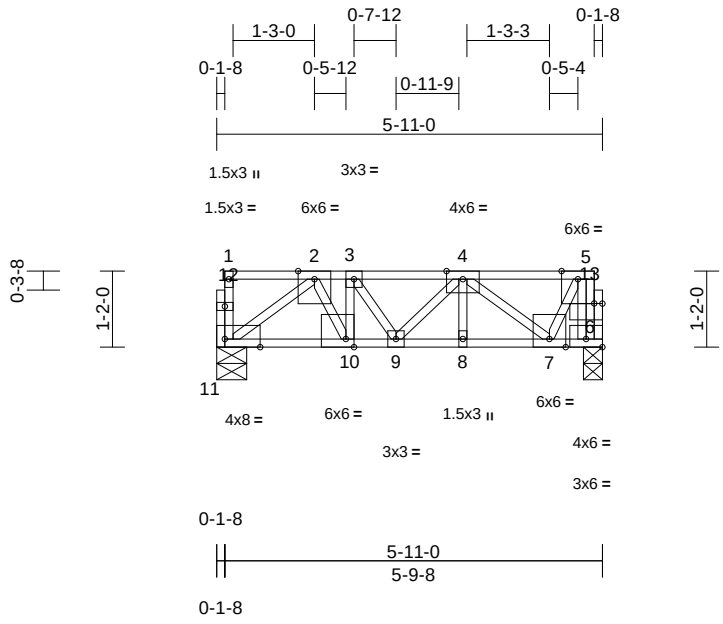

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Plate Offsets (X, Y): [6:Edge,0-1-8], [10:0-1-8,Edge], [11:0-6-8,Edge], [13:0-1-8,0-0-0]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.87	Vert(LL)	-0.02	9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(CT)	-0.05	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.76	Horz(CT)	0.02	6	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 38 lb	FT = 20%F, 12%E

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 11=0-5-8
Max Grav 6=1448 (LC 1), 11=1699 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-11=-261/0, 5-6=-1452/0, 1-2=-16/0, 2-3=-2430/0, 3-4=-2512/0, 4-5=-849/0
BOT CHORD 10-11=0/1899, 9-10=0/2430, 8-9=0/2610, 7-8=0/2610, 6-7=0/87
WEBS 2-11=-2363/0, 3-9=0/147, 4-9=-139/0, 4-8=-18/0, 4-7=-2237/0, 5-7=0/1604, 3-10=-1015/0, 2-10=0/1147

NOTES
1) All bearings are assumed to be SP No.2 .
2) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
3) 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.
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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 6-11=-8, 1-4=-460, 4-5=-80

Concentrated Loads (lb)
Vert: 3=-300, 4=-1000

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Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0064 OWF
2501-0733-A	2F4	Floor	1	1	I71018470 Job Reference (optional)

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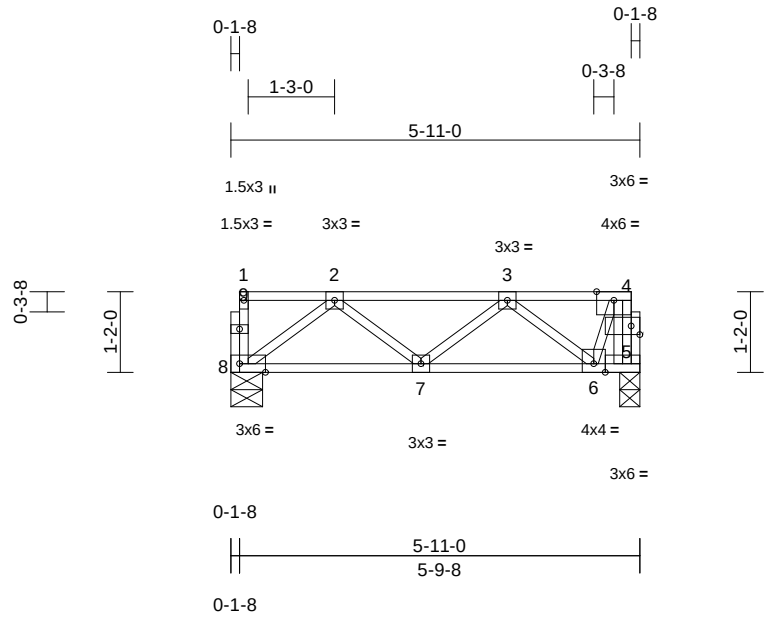

Scale = 1:24.4

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

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.23	Vert(LL)	0.00	7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.11	Vert(CT)	-0.01	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 34 lb	FT = 20%F, 12%E

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=0-3-8, 8=0-5-8
Max Grav 5=247 (LC 1), 8=242 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-28/0, 4-5=-249/0, 1-2=-2/0, 2-3=-308/0, 3-4=-100/0
BOT CHORD 7-8=0/272, 6-7=0/316, 5-6=0/0
WEBS 2-8=-340/0, 2-7=0/47, 3-7=-11/0, 3-6=-284/0, 4-6=0/220

NOTES
1) Bearings are assumed to be: Joint 8 SP No.3 , Joint 5 SP No.2 .
2) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
3) 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

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Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0064 OWF
2501-0733-A	2F6	Floor	12	1	I71018471 Job Reference (optional)

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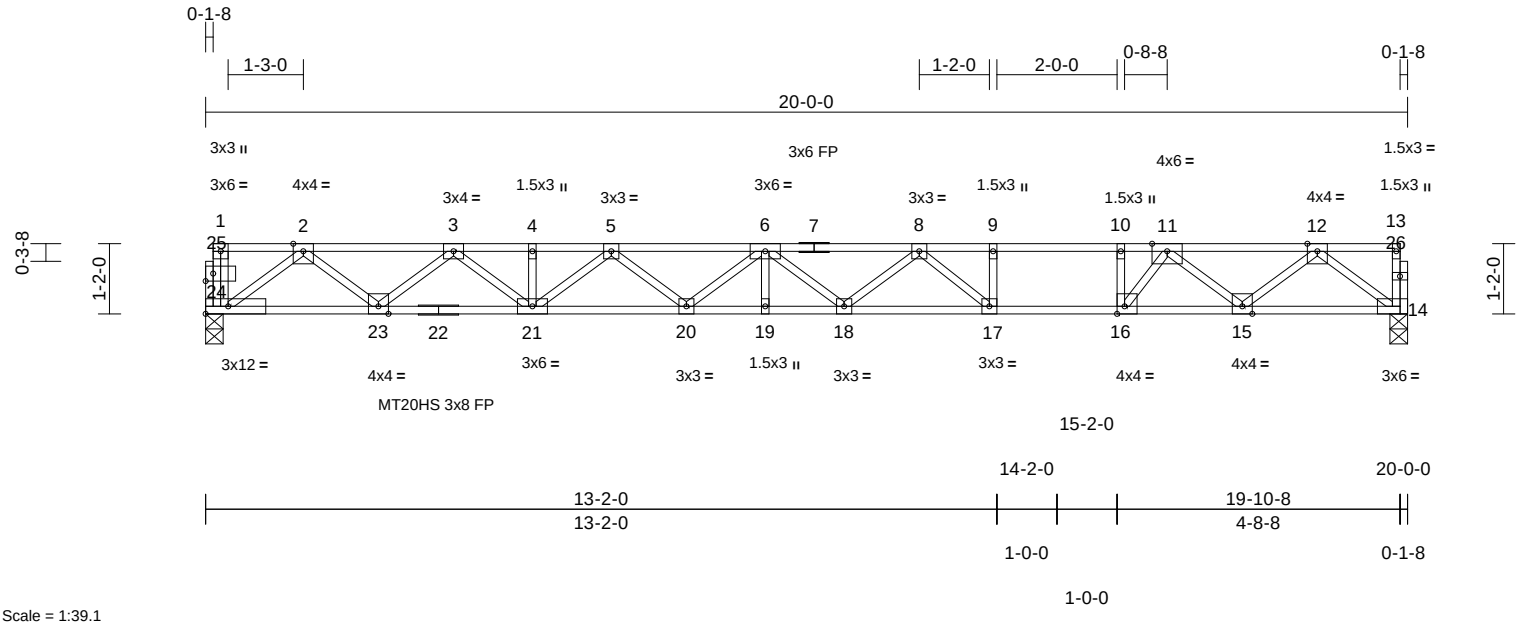

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Plate Offsets (X, Y): [16:0-1-8,Edge], [25:0-1-8,0-1-8]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.98	Vert(LL)	-0.47	17-18	>499	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.81	Vert(CT)	-0.65	17-18	>362	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 102 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 7-13:2x4 SP SS (flat)
BOT CHORD 2x4 SP SS(flat) *Except* 22-14:2x4 SP DSS (flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS (size) 14=0-3-8, 24=0-3-8
Max Grav 14=861 (LC 1), 24=861 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-24=-32/0, 13-14=-25/2, 1-2=-2/0, 2-3=-1899/0, 3-4=-3186/0, 4-5=-3186/0, 5-6=-3877/0, 6-8=-4098/0, 8-9=-3344/0, 9-10=-3344/0, 10-11=-3344/0, 11-12=-1816/0, 12-13=-2/0
BOT CHORD 23-24=0/1131, 21-23=0/2639, 20-21=0/3653, 19-20=0/4078, 18-19=0/4078, 17-18=0/3938, 16-17=0/3344, 15-16=0/2662, 14-15=0/1079
WEBS 9-17=-3/329, 10-16=-727/0, 2-24=-1394/0, 2-23=0/1000, 3-23=-963/0, 3-21=0/698, 4-21=-45/0, 5-21=-596/0, 5-20=0/292, 6-20=-257/0, 6-19=-58/0, 6-18=-21/131, 8-18=-48/271, 8-17=-875/0, 12-14=-1352/0, 12-15=0/960, 11-15=-1101/0, 11-16=0/1259

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Bearings are assumed to be: Joint 24 SP SS , Joint 14 SP DSS .
4) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0064 OWF
2501-0733-A	2F2GE	Floor Supported Gable	1	1	I71018472 Job Reference (optional)

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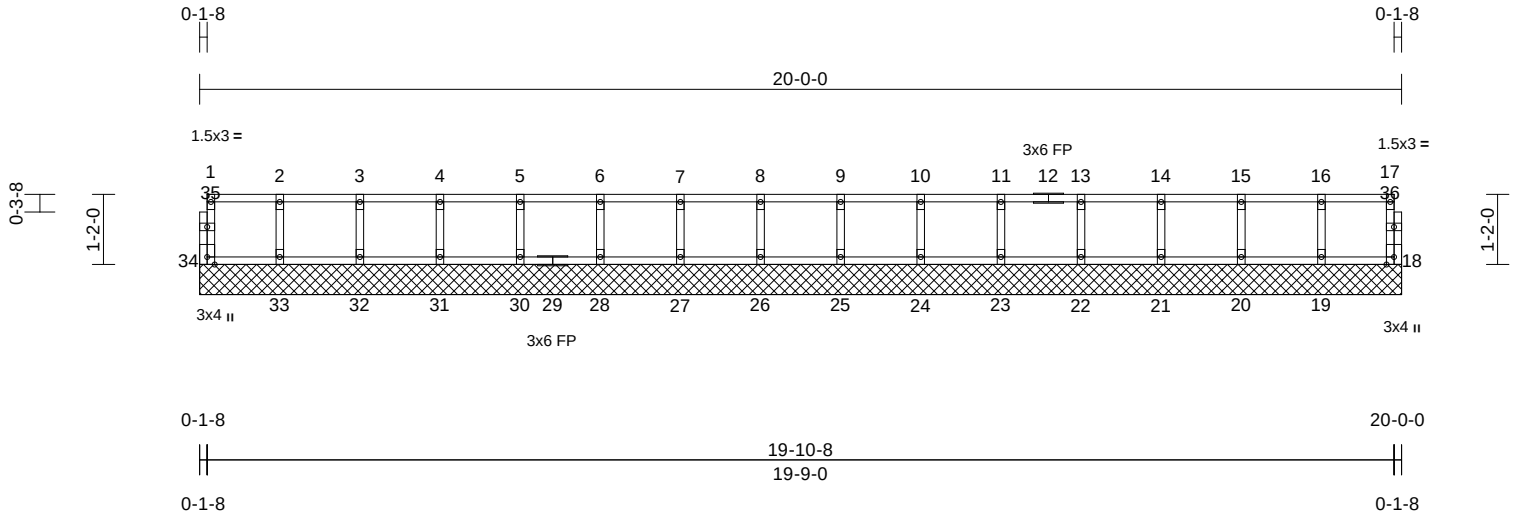

Scale = 1:39.1

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	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	0.02	Horiz(TL)	0.00	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 83 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(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) 18=20-0-0, 19=20-0-0, 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0, 25=20-0-0, 26=20-0-0, 27=20-0-0, 28=20-0-0, 30=20-0-0, 31=20-0-0, 32=20-0-0, 33=20-0-0, 34=20-0-0
Max Grav 18=45 (LC 1), 19=115 (LC 1), 20=118 (LC 1), 21=117 (LC 1), 22=117 (LC 1), 23=117 (LC 1), 24=117 (LC 1), 25=117 (LC 1), 26=117 (LC 1), 27=117 (LC 1), 28=117 (LC 1), 30=117 (LC 1), 31=117 (LC 1), 32=118 (LC 1), 33=115 (LC 1), 34=45 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-34=-41/0, 17-18=-41/0, 1-2=-10/0, 2-3=-10/0, 3-4=-10/0, 4-5=-10/0, 5-6=-10/0, 6-7=-10/0, 7-8=-10/0, 8-9=-10/0, 9-10=-10/0, 10-11=-10/0, 11-13=-10/0, 13-14=-10/0, 14-15=-10/0, 15-16=-10/0, 16-17=-10/0
BOT CHORD 33-34=0/10, 32-33=0/10, 31-32=0/10, 30-31=0/10, 28-30=0/10, 27-28=0/10, 26-27=0/10, 25-26=0/10, 24-25=0/10, 23-24=0/10, 22-23=0/10, 21-22=0/10, 20-21=0/10, 19-20=0/10, 18-19=0/10
WEBS 2-33=-104/0, 3-32=-107/0, 4-31=-106/0, 5-30=-107/0, 6-28=-107/0, 7-27=-107/0, 8-26=-107/0, 9-25=-107/0, 10-24=-107/0, 11-23=-107/0, 13-22=-107/0, 14-21=-106/0, 15-20=-107/0, 16-19=-104/0

NOTES
1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) All bearings are assumed to be SP No.2 .
6) Bearing at joint(s) 34, 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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

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Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0064 OWF
2501-0733-A	2F1GE	Floor Supported Gable	1	1	I71018473 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 11:41:27 Page: 1

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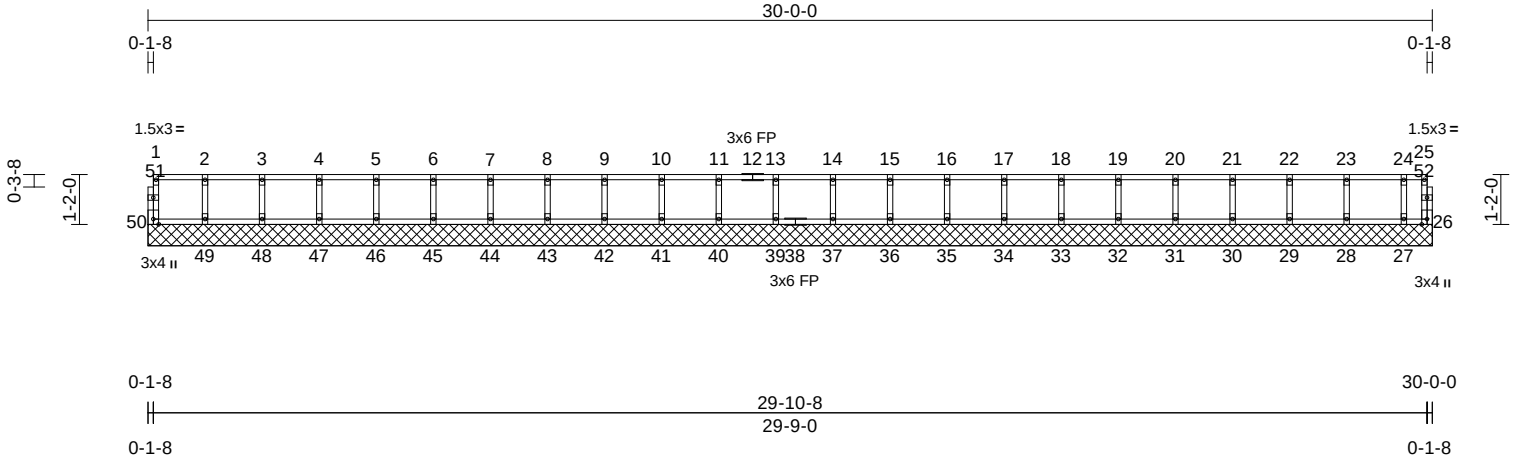

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Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	26	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 124 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(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) 26=30-0-0, 27=30-0-0, 28=30-0-0, 29=30-0-0, 30=30-0-0, 31=30-0-0, 32=30-0-0, 33=30-0-0, 34=30-0-0, 35=30-0-0, 36=30-0-0, 37=30-0-0, 39=30-0-0, 40=30-0-0, 41=30-0-0, 42=30-0-0, 43=30-0-0, 44=30-0-0, 45=30-0-0, 46=30-0-0, 47=30-0-0, 48=30-0-0, 49=30-0-0, 50=30-0-0
Max Grav 26=14 (LC 1), 27=84 (LC 1), 28=123 (LC 1), 29=116 (LC 1), 30=118 (LC 1), 31=117 (LC 1), 32=117 (LC 1), 33=117 (LC 1), 34=117 (LC 1), 35=117 (LC 1), 36=117 (LC 1), 37=117 (LC 1), 39=117 (LC 1), 40=117 (LC 1), 41=117 (LC 1), 42=117 (LC 1), 43=117 (LC 1), 44=117 (LC 1), 45=117 (LC 1), 46=117 (LC 1), 47=117 (LC 1), 48=117 (LC 1), 49=120 (LC 1), 50=41 (LC 1)

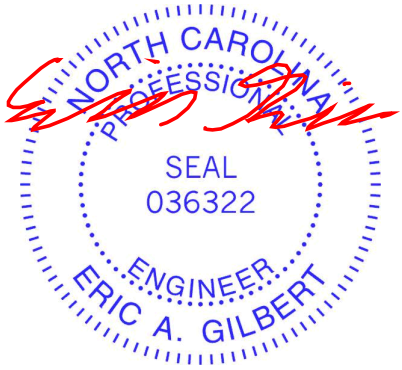
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-50=-38/0, 25-26=-8/0, 1-2=-6/0, 2-3=-6/0, 3-4=-6/0, 4-5=-6/0, 5-6=-6/0, 6-7=-6/0, 7-8=-6/0, 8-9=-6/0, 9-10=-6/0, 10-11=-6/0, 11-13=-6/0, 13-14=-6/0, 14-15=-6/0, 15-16=-6/0, 16-17=-6/0, 17-18=-6/0, 18-19=-6/0, 19-20=-6/0, 20-21=-6/0, 21-22=-6/0, 22-23=-6/0, 23-24=-6/0, 24-25=-6/0
BOT CHORD 49-50=0/6, 48-49=0/6, 47-48=0/6, 46-47=0/6, 45-46=0/6, 44-45=0/6, 43-44=0/6, 42-43=0/6, 41-42=0/6, 40-41=0/6, 39-40=0/6, 37-39=0/6, 36-37=0/6, 35-36=0/6, 34-35=0/6, 33-34=0/6, 32-33=0/6, 31-32=0/6, 30-31=0/6, 29-30=0/6, 28-29=0/6, 27-28=0/6, 26-27=0/6
WEBS 2-49=-107/0, 3-48=-107/0, 4-47=-107/0, 5-46=-107/0, 6-45=-107/0, 7-44=-107/0, 8-43=-107/0, 9-42=-107/0, 10-41=-107/0, 11-40=-107/0, 13-39=-107/0, 14-37=-107/0, 15-36=-107/0, 16-35=-107/0, 17-34=-107/0, 18-33=-107/0, 19-32=-107/0, 20-31=-107/0, 21-30=-107/0, 22-29=-106/0, 23-28=-111/0, 24-27=-80/0

NOTES

1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) All bearings are assumed to be SP No.2 .
6) Bearing at joint(s) 50, 26 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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



January 27,2025

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Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0064 OWF
2501-0733-A	1F1	Floor	2	1	I71018474 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 11:41:25 Page: 1

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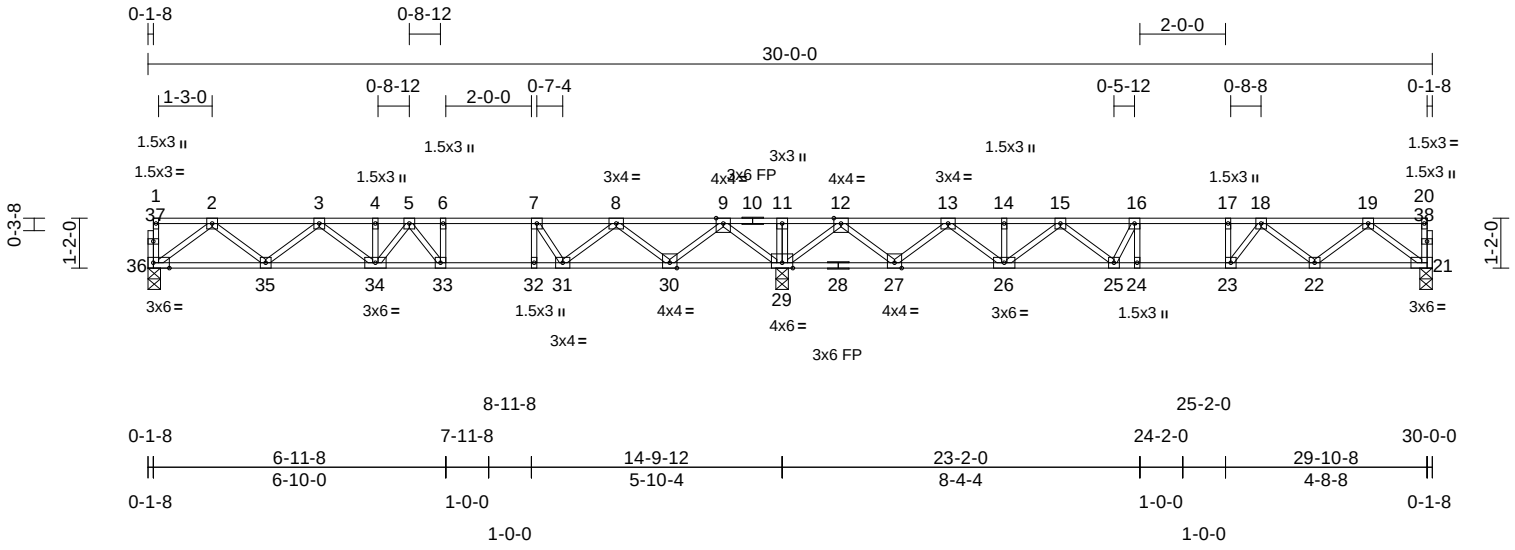


Scale = 1:54.5

Plate Offsets (X, Y): [36:0-4-8,Edge]

Loading	(psf)	Spacing	1-10-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.88	Vert(LL)	-0.15	24-25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.18	24-25	>980	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.49	Horz(CT)	0.03	21	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 152 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) *Except* 10-1:2x4 SP SS (flat)
BOT CHORD 2x4 SP SS(flat) *Except* 28-21:2x4 SP No.2 (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=0-3-8, 29=0-3-8, 36=0-3-8
Max Grav 21=634 (LC 4), 29=1870 (LC 1), 36=654 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-36=-32/0, 20-21=-32/0, 1-2=-2/0, 2-3=-1295/0, 3-4=-1987/0, 4-5=-1987/0, 5-6=-1957/191, 6-7=-1957/191, 7-8=-1648/412, 8-9=-555/969, 9-11=0/2269, 11-12=0/2269, 12-13=-118/560, 13-14=-1340/102, 14-15=-1340/102, 15-16=-1876/0, 16-17=-1890/0, 17-18=-1890/0, 18-19=-1237/0, 19-20=-2/0

BOT CHORD 35-36=0/807, 34-35=0/1760, 33-34=-2/2039, 32-33=-191/1957, 31-32=-191/1957, 30-31=-684/1208, 29-30=-1285/0, 27-29=-1149/0, 26-27=-312/839, 25-26=0/1723, 24-25=0/1890, 23-24=0/1890, 22-23=0/1690, 21-22=0/781

WEBS 6-33=-23/191, 7-32=0/414, 16-24=-137/152, 17-23=-240/21, 2-36=-1010/0, 2-35=0/635, 3-35=-605/0, 3-34=-63/290, 19-21=-977/0, 19-22=0/594, 18-22=-590/0, 18-23=-52/402, 4-34=-38/16, 5-34=-87/123, 5-33=-521/0, 11-29=-103/0, 9-29=-1448/0, 9-30=0/1003, 8-30=-963/0, 8-31=0/753, 7-31=-878/0, 12-29=-1425/0, 12-27=0/1030, 13-27=-1001/0, 13-26=0/704, 14-26=-78/0, 15-26=-541/0, 15-25=0/411, 16-25=-395/20

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) Bearings are assumed to be: Joint 36 SP No.3 , Joint 29 SP SS , Joint 21 SP No.2 .
4) Bearing at joint(s) 36, 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) 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.
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.
8) 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

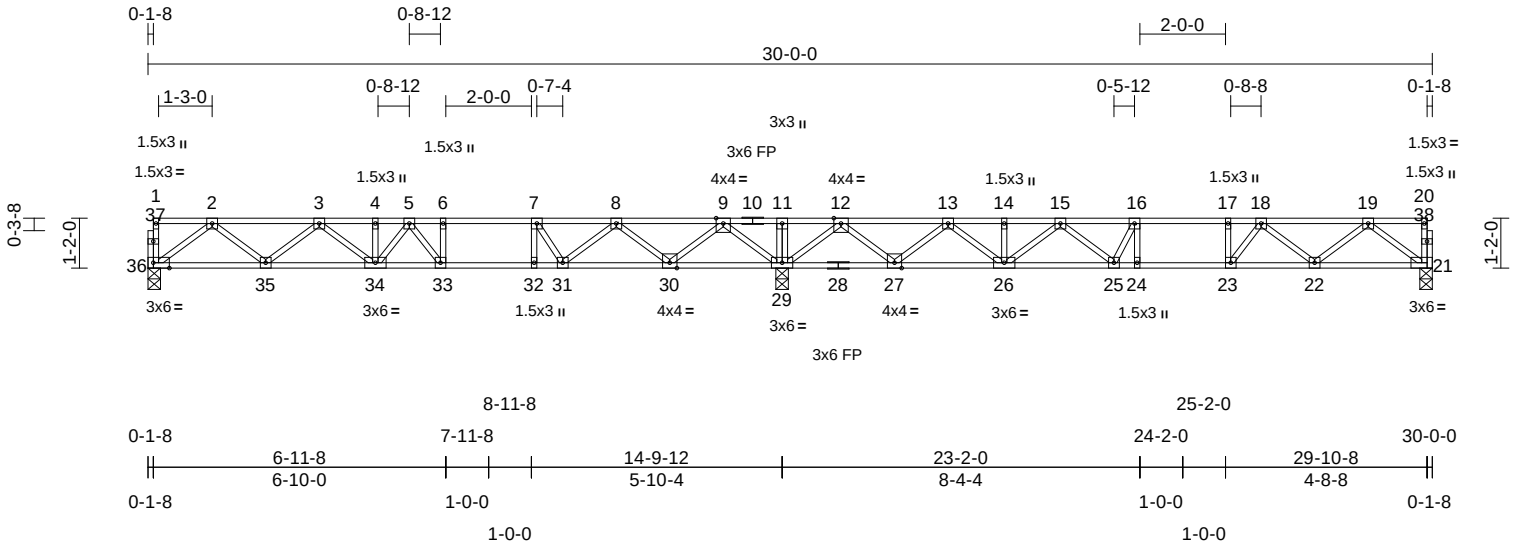
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 21-36=-9, 1-8=-92, 8-12=-102 (F=-10), 12-20=-92

January 27,2025

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

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0064 OWF
2501-0733-A	2F1A	Floor	5	1	I71018475 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 11:41:27 Page: 1
ID:juhUALllZHDFe8S2BENPrWyCkuw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:54.5

Plate Offsets (X, Y): [36:0-4-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.81	Vert(LL)	-0.13	24-25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.78	Vert(CT)	-0.17	33-34	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.03	21	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 152 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP SS(flat) *Except* 28-21:2x4 SP No.2 (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=0-3-8, 29=0-3-8, 36=0-3-8
Max Grav 21=558 (LC 4), 29=1586 (LC 1), 36=566 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-36=-28/0, 20-21=-28/0, 1-2=-2/0, 2-3=-1117/0, 3-4=-1708/0, 4-5=-1708/0, 5-6=-1669/158, 6-7=-1669/158, 7-8=-1385/356, 8-9=-433/824, 9-11=0/1947, 11-12=0/1947, 12-13=-159/506, 13-14=-1214/103, 14-15=-1214/103, 15-16=-1669/0, 16-17=-1674/0, 17-18=-1674/0, 18-19=-1091/0, 19-20=-2/0
BOT CHORD 35-36=0/697, 34-35=0/1517, 33-34=-1/1745, 32-33=-158/1669, 31-32=-158/1669, 30-31=-589/997, 29-30=-1088/0, 27-29=-981/0, 26-27=-287/783, 25-26=0/1543, 24-25=0/1674, 23-24=0/1674, 22-23=0/1493, 21-22=0/687
WEBS 6-33=-31/128, 7-32=0/404, 16-24=-122/134, 17-23=-211/21, 2-36=-873/0, 2-35=0/546, 3-35=-521/0, 3-34=-52/244, 19-21=-860/0, 19-22=0/525, 18-22=-524/0, 18-23=-48/355, 4-34=-32/11, 5-34=-61/118, 5-33=-437/0, 11-29=-80/0, 9-29=-1218/0, 9-30=0/865, 8-30=-827/0, 8-31=0/646, 7-31=-791/0, 12-29=-1231/0, 12-27=0/896, 13-27=-871/0, 13-26=0/611, 14-26=-67/0, 15-26=-470/0, 15-25=0/360, 16-25=-347/22

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) Bearings are assumed to be: Joint 36 SP No.3 , Joint 29 SP SS , Joint 21 SP No.2 .
4) Bearing at joint(s) 36, 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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.

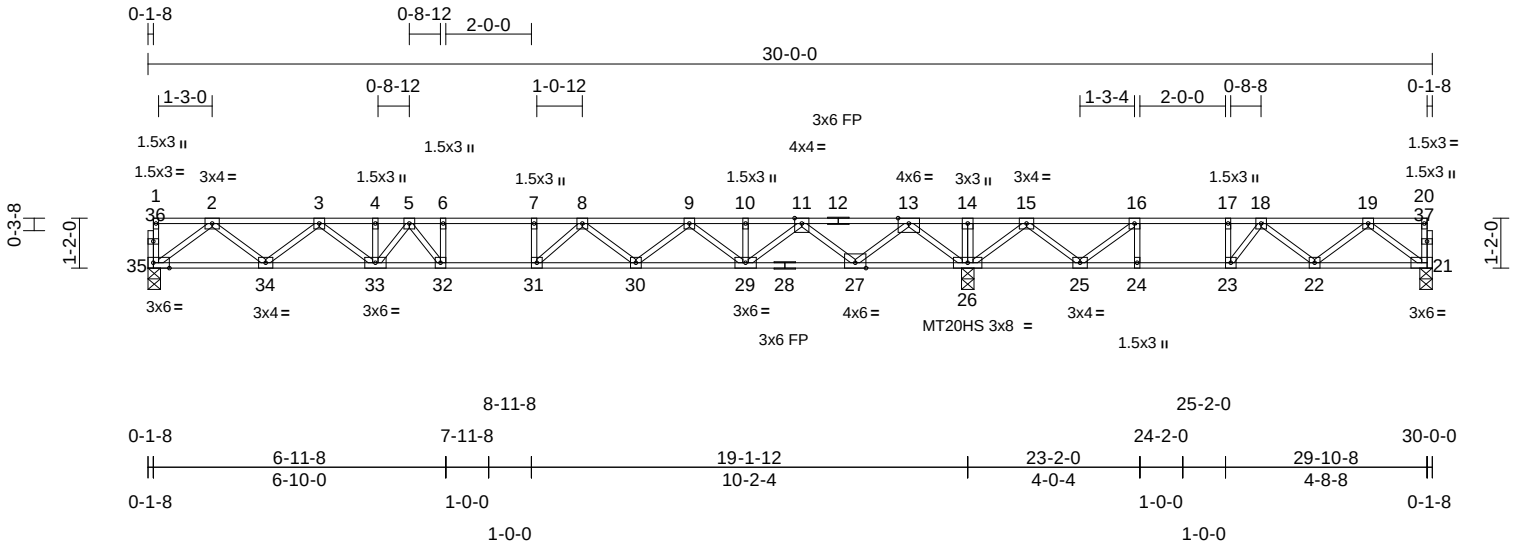
LOAD CASE(S) Standard

January 27,2025

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

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0064 OWF
2501-0733-A	2F2	Floor	5	1	I71018476 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 11:41:28 Page: 1
ID:ja2mwzLw?wJrS_CfhZ8W1kyCknj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:54.5

Plate Offsets (X, Y): [35:0-4-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.68	Vert(LL)	-0.27	30-31	>860	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.95	Vert(CT)	-0.36	30-31	>638	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.05	26	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 151 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 12-20:2x4 SP SS (flat)
BOT CHORD 2x4 SP No.2(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=0-3-8, 26=0-3-8, 35=0-3-8
Max Uplift 21=-69 (LC 3)
Max Grav 21=391 (LC 4), 26=1645 (LC 1), 35=722 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-35=-28/0, 20-21=-32/0, 1-2=-2/0, 2-3=-1513/0, 3-4=-2474/0, 4-5=-2474/0, 5-6=-2842/0, 6-7=-2842/0, 7-8=-2842/0, 8-9=-2472/0, 9-10=-1571/0, 10-11=-1571/0, 11-13=-65/206, 13-14=0/2245, 14-15=0/2245, 15-16=-285/1272, 16-17=-764/765, 17-18=-764/765, 18-19=-690/228, 19-20=-2/0
BOT CHORD 34-35=0/905, 33-34=0/2091, 32-33=0/2652, 31-32=0/2842, 30-31=0/2767, 29-30=0/2142, 27-29=0/909, 26-27=-1061/0, 25-26=-1652/0, 24-25=-765/764, 23-24=-765/764, 22-23=-447/852, 21-22=-106/471
WEBS 6-32=-311/0, 7-31=-218/19, 16-24=0/241, 17-23=0/333, 2-35=-1134/0, 2-34=0/791, 3-34=-752/0, 3-33=0/489, 19-21=-588/133, 19-22=-160/285, 18-22=-211/284, 18-23=-622/0, 4-33=-69/0, 5-33=-299/0, 5-32=-66/515, 14-26=-130/0, 13-26=-1485/0, 13-27=0/1147, 11-27=-1123/0, 11-29=0/869, 10-29=-55/0, 9-29=-754/0, 9-30=0/451, 8-30=-413/0, 8-31=-104/433, 15-26=-968/0, 15-25=0/804, 16-25=-988/0

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 3x3 (=) MT20 unless otherwise indicated.
4) Bearings are assumed to be: Joint 35 SP No.3 , Joint 26 SP No.2 , Joint 21 SP No.2 .
5) Bearing at joint(s) 35, 21 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 capable of withstanding 69 lb uplift at joint 21.
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.

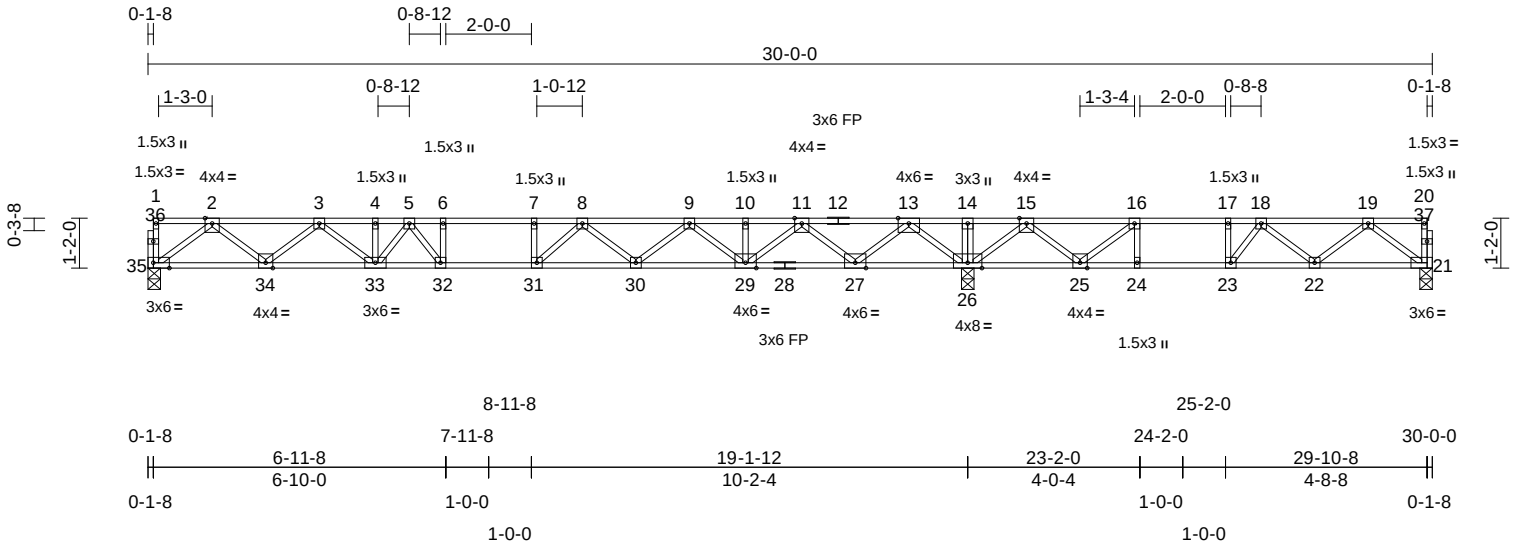
LOAD CASE(S) Standard

January 27,2025

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

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0064 OWF
2501-0733-A	2F2A	Floor	2	1	I71018477 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 11:41:28 Page: 1
ID:ja2mwzLw?wJrS_CfhZ8W1kyCknj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:54.5

Plate Offsets (X, Y): [35:0-4-8,Edge]

Loading	(psf)	Spacing	1-10-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.72	Vert(LL)	-0.27	30-31	>834	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.60	Vert(CT)	-0.37	30-31	>617	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.04	26	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 151 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 12-20:2x4 SP SS (flat)
BOT CHORD 2x4 SP SS(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=0-3-8, 26=0-3-8, 35=0-3-8
Max Uplift 21=-42 (LC 3)
Max Grav 21=485 (LC 4), 26=1891 (LC 1), 35=829 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-35=-32/0, 20-21=-40/0, 1-2=-2/0, 2-3=-1738/0, 3-4=-2839/0, 4-5=-2839/0, 5-6=-3266/0, 6-7=-3266/0, 7-8=-3266/0, 8-9=-2847/0, 9-10=-1816/0, 10-11=-1816/0, 11-13=-95/217, 13-14=0/2545, 14-15=0/2545, 15-16=-364/1424, 16-17=-935/815, 17-18=-935/815, 18-19=-853/199, 19-20=-2/0
BOT CHORD 34-35=0/1039, 33-34=0/2401, 32-33=0/3050, 31-32=0/3266, 30-31=0/3182, 29-30=0/2471, 27-29=0/1062, 26-27=-1194/0, 25-26=-1860/0, 24-25=-815/935, 23-24=-815/935, 22-23=-448/1046, 21-22=-73/586
WEBS 6-32=-336/0, 7-31=-235/7, 16-24=0/321, 17-23=0/341, 2-35=-1301/0, 2-34=0/909, 3-34=-863/0, 3-33=0/559, 19-21=-733/93, 19-22=-163/347, 18-22=-251/325, 18-23=-708/0, 4-33=-72/0, 5-33=-361/0, 5-32=-68/583, 14-26=-147/0, 13-26=-1696/0, 13-27=0/1311, 11-27=-1286/0, 11-29=0/992, 10-29=-61/0, 9-29=-864/0, 9-30=0/515, 8-30=-469/0, 8-31=-117/486, 15-26=-1120/0, 15-25=0/920, 16-25=-1168/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) Bearings are assumed to be: Joint 35 SP No.3 , Joint 26 SP SS , Joint 21 SP SS .
4) Bearing at joint(s) 35, 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 21.
6) 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.
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) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

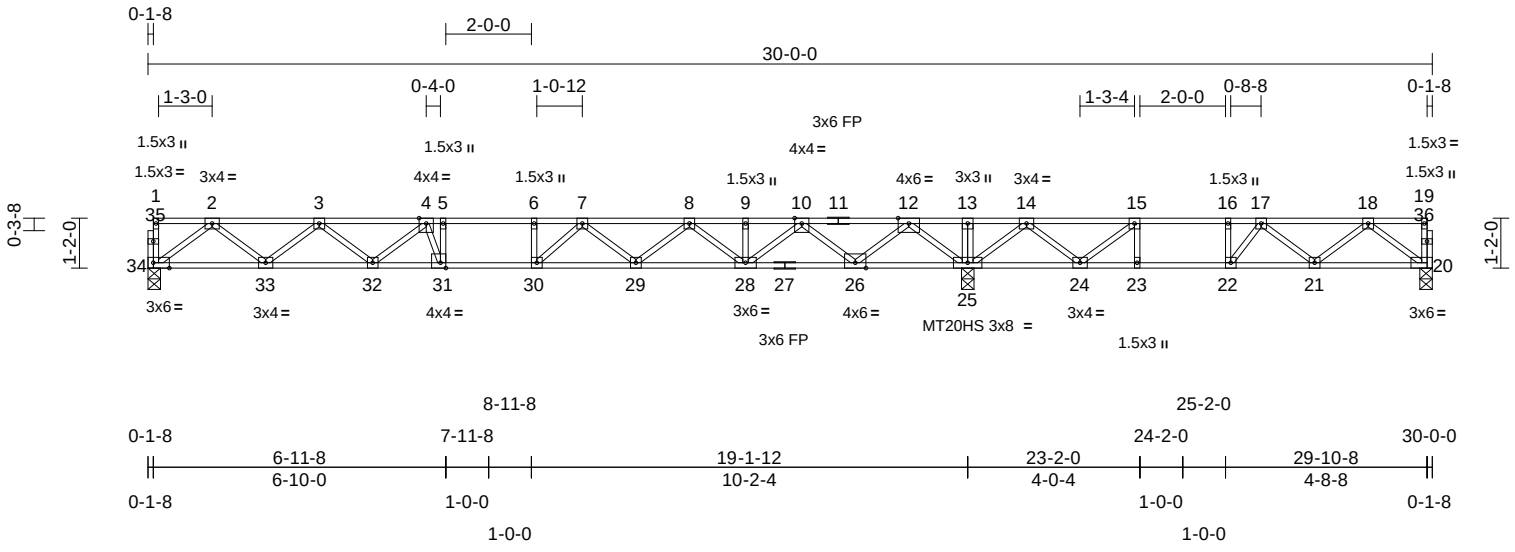
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 21-35=-9, 1-17=-92, 17-20=-102 (F=-10)

January 27,2025

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

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0064 OWF
2501-0733-A	2F2B	Floor	3	1	I71018478 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 11:41:28 Page: 1
ID:ja2mwzLw?wJrS_CfhZ8W1kyCknj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:54.5

Plate Offsets (X, Y): [31:0-1-8,Edge], [34:0-4-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.69	Vert(LL)	-0.27	29-30	>861	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.36	29-30	>637	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.05	25	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 150 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 11-19:2x4 SP SS (flat)
BOT CHORD 2x4 SP No.2(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=0-3-8, 25=0-3-8, 34=0-3-8
Max Uplift 20=-32 (LC 3)
Max Grav 20=428 (LC 4), 25=1654 (LC 1), 34=723 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-34=-31/0, 19-20=-36/0, 1-2=-2/0, 2-3=-1519/0, 3-4=-2437/0, 4-5=-2848/0, 5-6=-2848/0, 6-7=-2848/0, 7-8=-2479/0, 8-9=-1580/0, 9-10=-1580/0, 10-12=-76/201, 12-13=0/2233, 13-14=0/2233, 14-15=-319/1237, 15-16=-817/711, 16-17=-817/711, 17-18=-749/169, 18-19=-2/0
BOT CHORD 33-34=0/903, 32-33=0/2105, 31-32=0/2765, 30-31=0/2848, 29-30=0/2774, 28-29=0/2150, 26-28=0/920, 25-26=-1050/0, 24-25=-1629/0, 23-24=-711/817, 22-23=-711/817, 21-22=-376/922, 20-21=-61/515
WEBS 5-31=-422/137, 6-30=-219/23, 15-23=0/248, 16-22=0/349, 2-34=-1130/0, 2-33=0/802, 3-33=-763/0, 3-32=0/432, 4-32=-428/0, 4-31=-202/551, 18-20=-644/77, 18-21=-141/304, 17-21=-226/269, 17-22=-649/0, 13-25=-132/0, 12-25=-1483/0, 12-26=0/1146, 10-26=-1122/0, 10-28=0/868, 9-28=-55/0, 8-28=-753/0, 8-29=0/450, 7-29=-412/0, 7-30=-104/430, 14-25=-979/0, 14-24=0/821, 15-24=-1013/0

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 3x3 (=) MT20 unless otherwise indicated.
4) Bearings are assumed to be: Joint 34 SP No.3 , Joint 25 SP No.2 , Joint 20 SP No.2 .
5) Bearing at joint(s) 34, 20 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 capable of withstanding 32 lb uplift at joint 20.
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) 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.
9) CAUTION, Do not erect truss backwards.
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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 20-34=-8, 1-16=-80, 16-19=-90 (F=-10)

January 27,2025

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

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0064 OWF
2501-0733-A	2F3	Floor	1	1	I71018479 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 11:41:29 Page: 1
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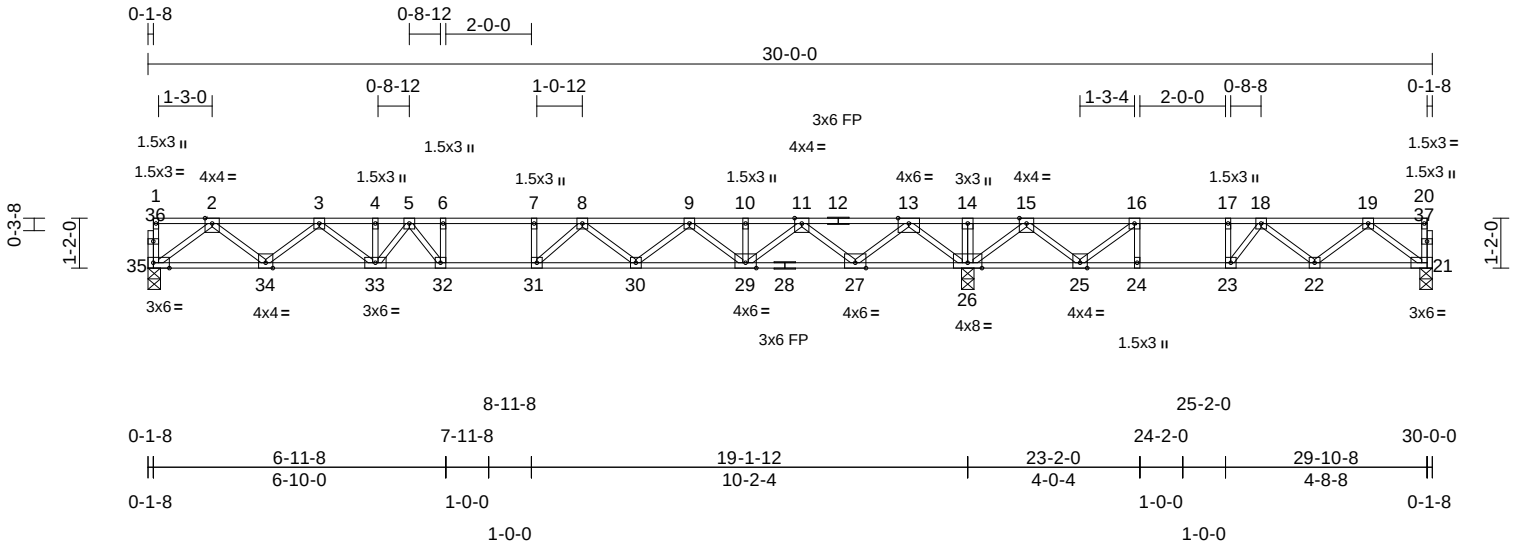

Scale = 1:54.5

Plate Offsets (X, Y): [35:0-4-8,Edge]

Loading	(psf)	Spacing	1-10-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.91	Vert(LL)	-0.29	30-31	>797	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.60	Vert(CT)	-0.38	30-31	>596	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.04	26	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 151 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 12-20:2x4 SP SS (flat)
BOT CHORD 2x4 SP SS(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 21=0-3-8, 26=0-3-8, 35=0-3-8
Max Horiz 35=19 (LC 7)
Max Uplift 21=-109 (LC 19), 35=-29 (LC 7)
Max Grav 21=500 (LC 18), 26=1891 (LC 1), 35=829 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-35=-32/0, 20-21=-40/0, 1-2=-197/197, 2-3=-1738/0, 3-4=-2839/0, 4-5=-2839/0, 5-6=-3266/0, 6-7=-3266/0, 7-8=-3266/0, 8-9=-2847/0, 9-10=-1816/21, 10-11=-1816/0, 11-13=-301/397, 13-14=0/2545, 14-15=0/2545, 15-16=-415/1424, 16-17=-935/815, 17-18=-935/815, 18-19=-858/278, 19-20=-198/197
BOT CHORD 34-35=-33/1039, 33-34=0/2401, 32-33=0/3050, 31-32=0/3266, 30-31=0/3182, 29-30=0/2471, 27-29=-171/1064, 26-27=-1215/151, 25-26=-1860/68, 24-25=-920/1038, 23-24=-815/935, 22-23=-448/1046, 21-22=-180/630
WEBS 6-32=-440/206, 7-31=-313/168, 16-24=-81/367, 17-23=-143/434, 2-35=-1301/68, 2-34=-101/940, 3-34=-882/112, 3-33=-161/649, 19-21=-763/202, 19-22=-260/429, 18-22=-392/456, 18-23=-870/280, 4-33=-86/29, 5-33=-477/194, 5-32=-422/816, 14-26=-147/2, 13-26=-1696/12, 13-27=-36/1311, 11-27=-1286/57, 11-29=-98/1012, 10-29=-61/0, 9-29=-895/122, 9-30=-137/595, 8-30=-609/239, 8-31=-407/702, 15-26=-1120/10, 15-25=-100/958, 16-25=-1256/199

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) Bearings are assumed to be: Joint 35 SP No.3 , Joint 26 SP SS , Joint 21 SP SS .
4) Bearing at joint(s) 35, 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 21.
6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 35. 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 has been designed for a total drag load of 150 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 30-0-0 for 150.0 plf.
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.
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: 21-35=-9, 1-17=-92, 17-20=-102 (F=-10)

January 27,2025

ENGINEERING BY TRENCO A MiTek Affiliate
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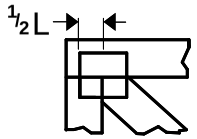
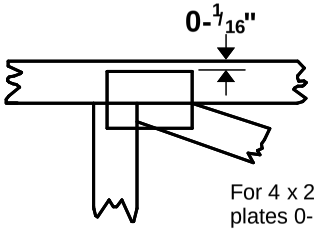
Edenton, NC 27932

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.

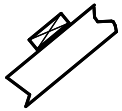
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

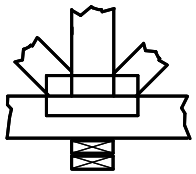
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

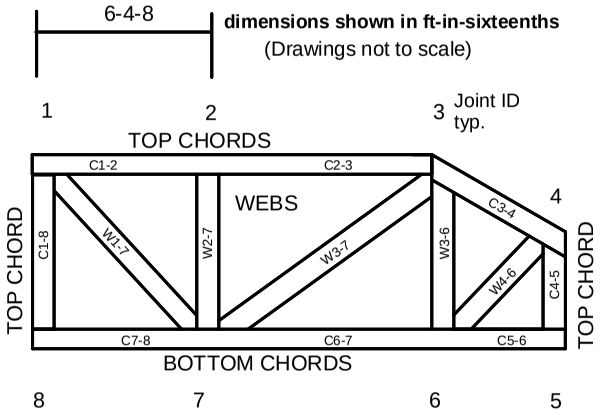


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.