ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 25030169-A
Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG FL GRH

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC)).

Pages or sheets covered by this seal: I72478828 thru I72478843

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

North Carolina COA: C-0844

April 4,2025

Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG I72478828
25030169-A	F201	Floor Supported Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 9.05 S 8.73 Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:37:57 Page: 1
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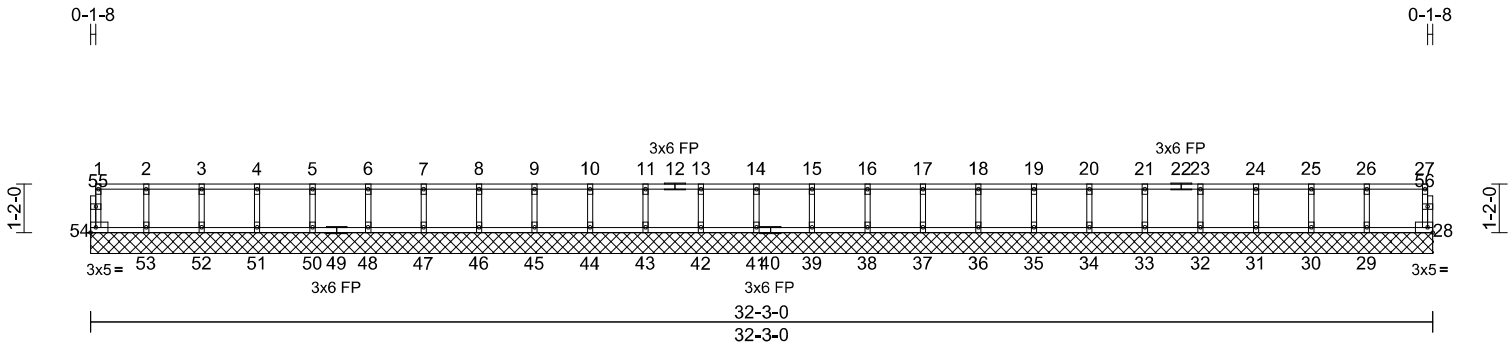

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	28	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 132 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.2(flat)
OTHERS 2x4 SP No.2(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) 28=32-3-0, 29=32-3-0, 30=32-3-0, 31=32-3-0, 32=32-3-0, 33=32-3-0, 34=32-3-0, 35=32-3-0, 36=32-3-0, 37=32-3-0, 38=32-3-0, 39=32-3-0, 41=32-3-0, 42=32-3-0, 43=32-3-0, 44=32-3-0, 45=32-3-0, 46=32-3-0, 47=32-3-0, 48=32-3-0, 50=32-3-0, 51=32-3-0, 52=32-3-0, 53=32-3-0, 54=32-3-0
Max Grav 28=69 (LC 1), 29=161 (LC 1), 30=143 (LC 1), 31=148 (LC 1), 32=146 (LC 1), 33=147 (LC 1), 34=147 (LC 1), 35=147 (LC 1), 36=147 (LC 1), 37=147 (LC 1), 38=147 (LC 1), 39=147 (LC 1), 41=147 (LC 1), 42=147 (LC 1), 43=147 (LC 1), 44=147 (LC 1), 45=147 (LC 1), 46=147 (LC 1), 47=147 (LC 1), 48=147 (LC 1), 50=147 (LC 1), 51=146 (LC 1), 52=149 (LC 1), 53=140 (LC 1), 54=59 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-54=-52/0, 27-28=-65/0, 1-2=-12/0, 2-3=-12/0, 3-4=-12/0, 4-5=-12/0, 5-6=-12/0, 6-7=-12/0, 7-8=-12/0, 8-9=-12/0, 9-10=-12/0, 10-11=-12/0, 11-13=-12/0, 13-14=-12/0, 14-15=-12/0, 15-16=-12/0, 16-17=-12/0, 17-18=-12/0, 18-19=-12/0, 19-20=-12/0, 20-21=-12/0, 21-23=-12/0, 23-24=-12/0, 24-25=-12/0, 25-26=-12/0, 26-27=-12/0
BOT CHORD 53-54=0/12, 52-53=0/12, 51-52=0/12, 50-51=0/12, 48-50=0/12, 47-48=0/12, 46-47=0/12, 45-46=0/12, 44-45=0/12, 43-44=0/12, 42-43=0/12, 41-42=0/12, 39-41=0/12, 38-39=0/12, 37-38=0/12, 36-37=0/12, 35-36=0/12, 34-35=0/12, 33-34=0/12, 32-33=0/12, 31-32=0/12, 30-31=0/12, 29-30=0/12, 28-29=0/12
WEBS 2-53=-128/0, 3-52=-135/0, 4-51=-133/0, 5-50=-133/0, 6-48=-133/0, 7-47=-133/0, 8-46=-133/0, 9-45=-133/0, 10-44=-133/0, 11-43=-133/0, 13-42=-133/0, 14-41=-133/0, 15-39=-133/0, 16-38=-133/0, 17-37=-133/0, 18-36=-133/0, 19-35=-133/0, 20-34=-133/0, 21-33=-133/0, 23-32=-133/0, 24-31=-134/0, 25-30=-130/0, 26-29=-145/0

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) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG I72478829
25030169-A	F204	Floor Supported Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

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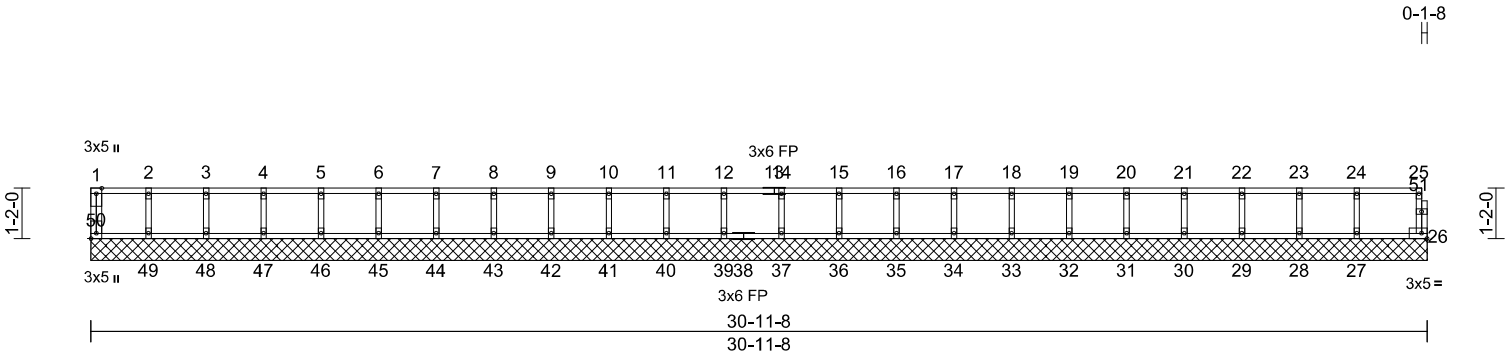

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Plate Offsets (X, Y): [50:Edge,0-1-8]

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	0.09	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	0.02	Horiz(TL)	0.00	26	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 127 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.2(flat)
OTHERS 2x4 SP No.2(flat) *Except* 26-51:2x4 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=30-11-8, 27=30-11-8, 28=30-11-8, 29=30-11-8, 30=30-11-8, 31=30-11-8, 32=30-11-8, 33=30-11-8, 34=30-11-8, 35=30-11-8, 36=30-11-8, 37=30-11-8, 39=30-11-8, 40=30-11-8, 41=30-11-8, 42=30-11-8, 43=30-11-8, 44=30-11-8, 45=30-11-8, 46=30-11-8, 47=30-11-8, 48=30-11-8, 49=30-11-8, 50=30-11-8
Max Grav 26=72 (LC 1), 27=164 (LC 1), 28=142 (LC 1), 29=148 (LC 1), 30=146 (LC 1), 31=147 (LC 1), 32=147 (LC 1), 33=147 (LC 1), 34=147 (LC 1), 35=147 (LC 1), 36=147 (LC 1), 37=147 (LC 1), 39=147 (LC 1), 40=147 (LC 1), 41=147 (LC 1), 42=147 (LC 1), 43=147 (LC 1), 44=147 (LC 1), 45=147 (LC 1), 46=147 (LC 1), 47=146 (LC 1), 48=149 (LC 1), 49=139 (LC 1), 50=66 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-50=-58/0, 25-26=-67/0, 1-2=-13/0, 2-3=-13/0, 3-4=-13/0, 4-5=-13/0, 5-6=-13/0, 6-7=-13/0, 7-8=-13/0, 8-9=-13/0, 9-10=-13/0, 10-11=-13/0, 11-12=-13/0, 12-14=-13/0, 14-15=-13/0, 15-16=-13/0, 16-17=-13/0, 17-18=-13/0, 18-19=-13/0, 19-20=-13/0, 20-21=-13/0, 21-22=-13/0, 22-23=-13/0, 23-24=-13/0, 24-25=-13/0
BOT CHORD 49-50=0/13, 48-49=0/13, 47-48=0/13, 46-47=0/13, 45-46=0/13, 44-45=0/13, 43-44=0/13, 42-43=0/13, 41-42=0/13, 40-41=0/13, 39-40=0/13, 37-39=0/13, 36-37=0/13, 35-36=0/13, 34-35=0/13, 33-34=0/13, 32-33=0/13, 31-32=0/13, 30-31=0/13, 29-30=0/13, 28-29=0/13, 27-28=0/13, 26-27=0/13
WEBS 2-49=-128/0, 3-48=-135/0, 4-47=-133/0, 5-46=-133/0, 6-45=-133/0, 7-44=-133/0, 8-43=-133/0, 9-42=-133/0, 10-41=-133/0, 11-40=-133/0, 12-39=-133/0, 14-37=-133/0, 15-36=-133/0, 16-35=-133/0, 17-34=-133/0, 18-33=-133/0, 19-32=-133/0, 20-31=-133/0, 21-30=-133/0, 22-29=-134/0, 23-28=-129/0, 24-27=-147/0

LOAD CASE(S) Standard

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) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

April 4,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F215	Floor	1	1	I72478830 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

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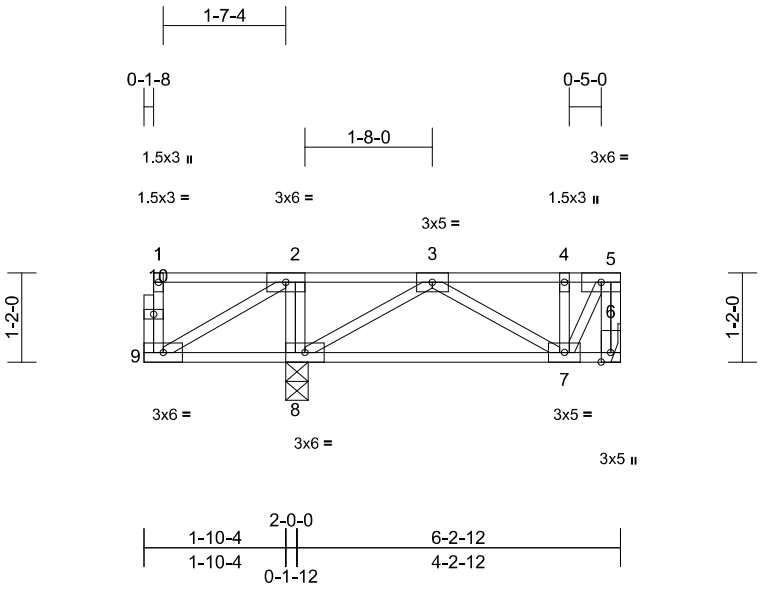

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.24	Vert(LL)	0.00	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.12	Vert(CT)	-0.01	7-8	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.00	6	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 38 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.2(flat)
OTHERS 2x4 SP No.2(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) 6= Mechanical, 8=0-3-8
Max Grav 6=215 (LC 4), 8=468 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-9=-76/0, 5-6=-225/0, 1-2=-5/0, 2-3=0/137, 3-4=-129/0, 4-5=-129/0
BOT CHORD 8-9=-137/0, 7-8=-42/215, 6-7=0/0
WEBS 2-8=-279/0, 2-9=0/163, 3-8=-310/0, 3-7=-100/71, 4-7=-144/0, 5-7=0/257

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Bearings are assumed to be: Joint 8 SP No.2 .
3) Refer to girder(s) for truss to truss connections.
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

April 4,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG I72478831
25030169-A	F216	Floor Girder	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

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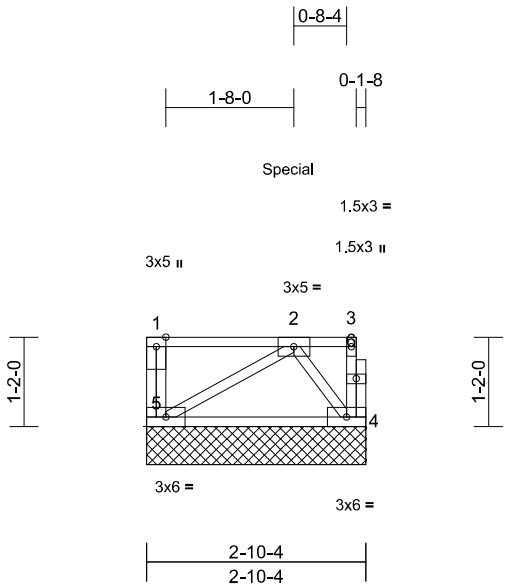

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.22	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.13	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%F, 11%E

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=2-10-4, 5=2-10-4
Max Uplift 4=-43 (LC 7), 5=-6 (LC 7)
Max Grav 4=743 (LC 5), 5=403 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-76/0, 3-4=-8/1, 1-2=0/0, 2-3=0/0
BOT CHORD 4-5=-39/564
WEBS 2-5=-652/45, 2-4=-916/63

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Gable requires continuous bottom chord bearing.
3) All bearings are assumed to be SP No.2 .
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 5 and 43 lb uplift at joint 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 917 lb down and 96 lb up at 1-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 4-5=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 2=-697 (F)

April 4,2025

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F208	Floor Girder	1	1	I72478832 Job Reference (optional)

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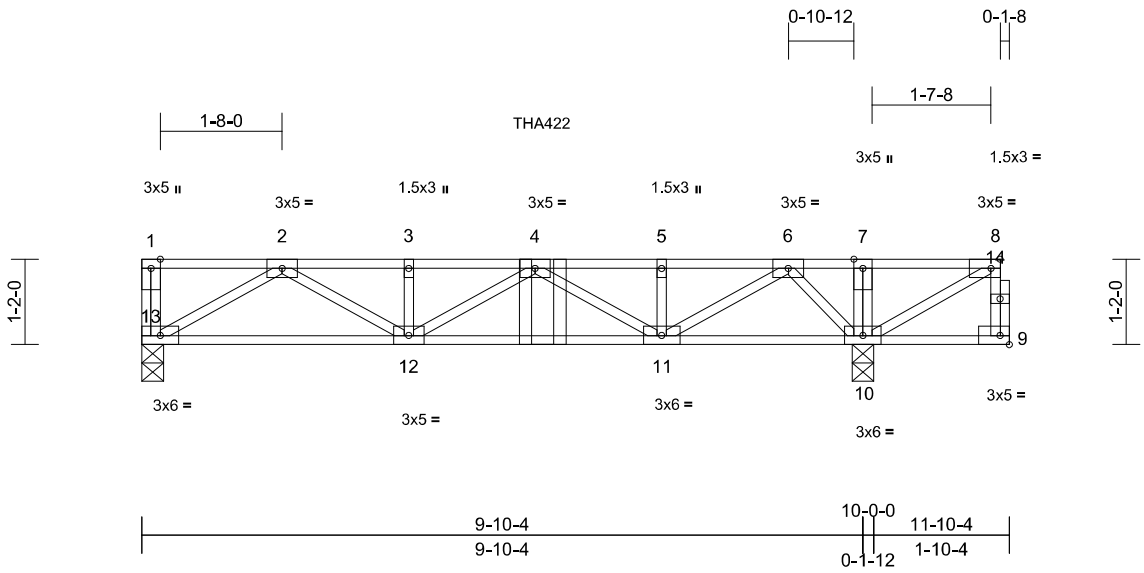

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Plate Offsets (X, Y): [8:0-1-8,Edge]

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	0.23	Vert(LL)	-0.04	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.52	Vert(CT)	-0.06	11-12	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.02	10	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 65 lb	FT = 20%F, 11%E

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

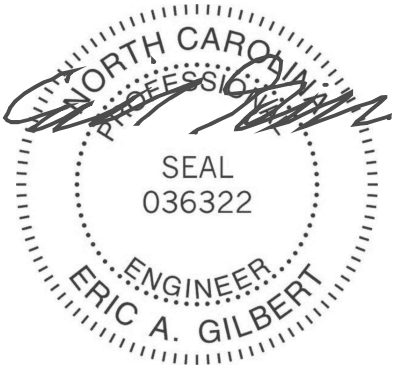
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 10=0-3-8, 13=0-3-8
Max Grav 10=831 (LC 1), 13=599 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-13=-73/0, 8-9=0/6, 1-2=0/0, 2-3=-1395/0, 3-4=-1395/0, 4-5=-1221/0, 5-6=-1221/0, 6-7=0/136, 7-8=0/139
BOT CHORD 12-13=0/879, 11-12=0/1573, 10-11=0/530, 9-10=0/0
WEBS 7-10=-176/0, 2-13=-1016/0, 2-12=0/603, 3-12=-166/0, 4-12=-208/0, 4-11=-435/0, 5-11=-180/0, 6-11=0/838, 6-10=-793/0, 8-10=-160/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) All bearings are assumed to be SP No.2 .
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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 Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 5-5-12 from the left end to connect truss (es) to back face of top chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
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: 9-13=-10, 1-8=-100
Concentrated Loads (lb)
Vert: 4=-147 (B)



April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F212	Floor Girder	1	1	I72478833 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

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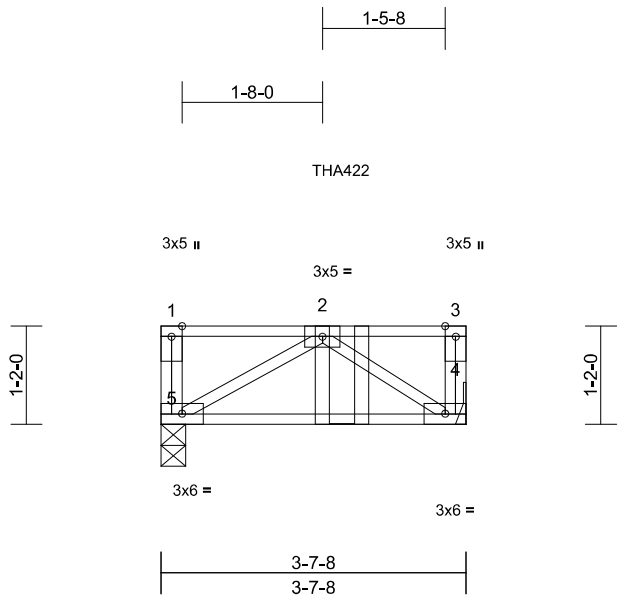

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.19	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 22 lb	FT = 20%F, 11%E

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-7-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5=0-3-8
Max Grav 4=247 (LC 1), 5=240 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-71/0, 3-4=-58/0, 1-2=0/0, 2-3=0/0
BOT CHORD 4-5=0/261
WEBS 2-5=-302/0, 2-4=-312/0

NOTES
1) Bearings are assumed to be: Joint 5 SP No.2 .
2) Refer to girder(s) for truss to truss connections.
3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
5) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 2-1-12 from the left end to connect truss (es) to back face of top chord.
6) Fill all nail holes where hanger is in contact with lumber.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 4-5=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 2=-115 (B)

April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F210	Floor	1	1	I72478834
					Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 9.05 S 8.73 Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:37:58 Page: 1
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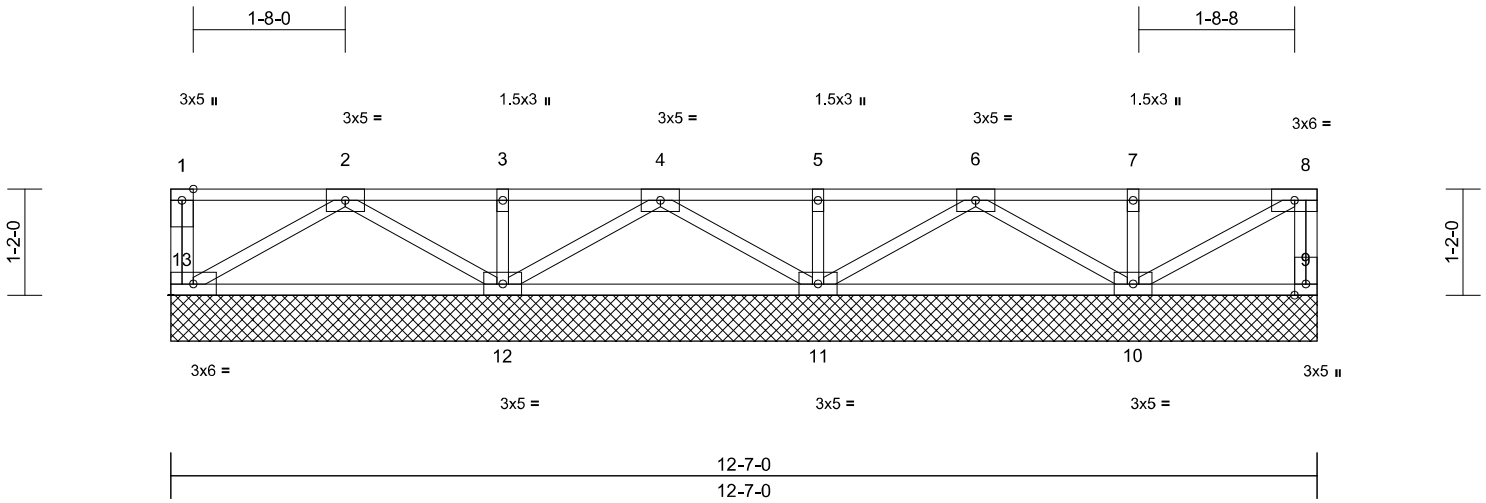


Scale = 1:25.3

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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 67 lb	FT = 20%F, 11%E

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

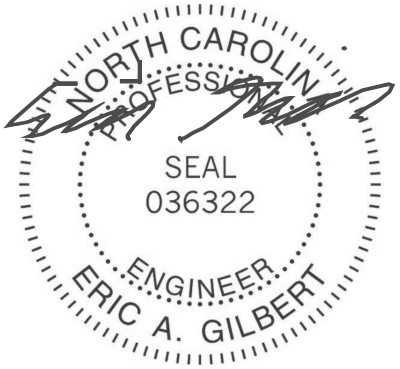
BRACING
TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 9=12-7-0, 10=12-7-0, 11=12-7-0, 12=12-7-0, 13=12-7-0
Max Grav 9=63 (LC 1), 10=328 (LC 1), 11=386 (LC 1), 12=419 (LC 1), 13=161 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-13=-72/0, 8-9=-58/0, 1-2=0/0, 2-3=0/73, 3-4=0/73, 4-5=0/66, 5-6=0/66, 6-7=0/32, 7-8=0/32
BOT CHORD 12-13=0/129, 11-12=0/71, 10-11=0/83, 9-10=0/0
WEBS 2-13=-150/0, 2-12=-237/0, 3-12=-170/0, 4-12=-169/0, 4-11=-161/0, 5-11=-179/0, 6-11=-175/0, 6-10=-135/0, 7-10=-210/0, 8-10=-37/0

NOTES
1) All plates are 3x5 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) All bearings are assumed to be SP No.2 .
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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



April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F213	Floor Supported Gable	1	1	I72478835 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 9.05 S 8.73 Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:37:58 Page: 1
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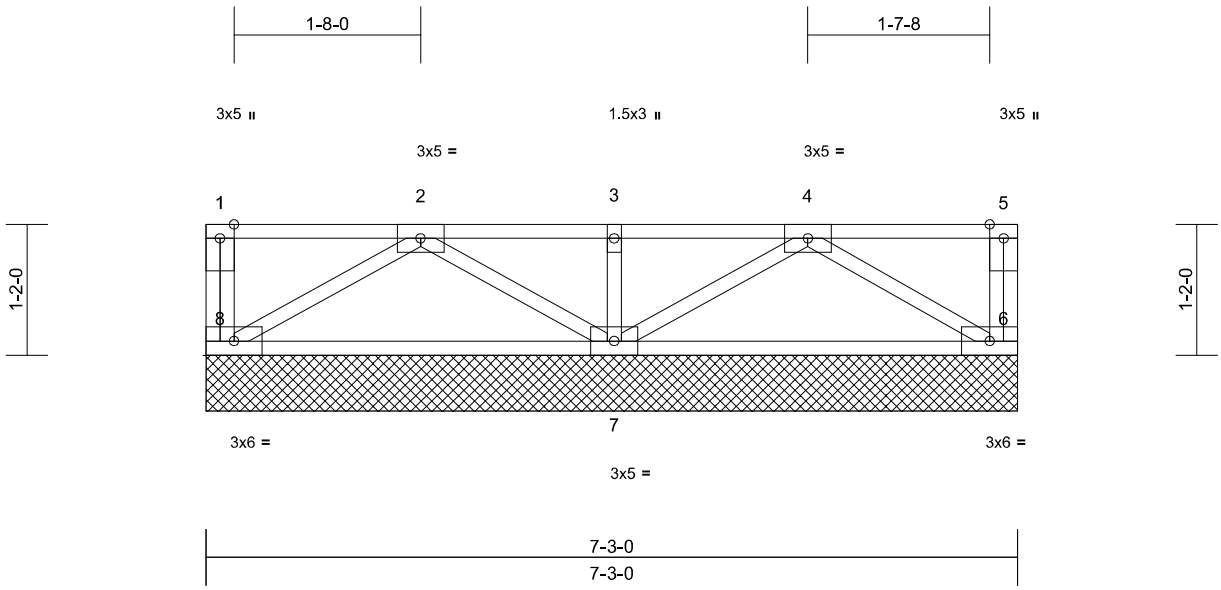

Scale = 1:20.6

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	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 40 lb	FT = 20%F, 11%E

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 7-3-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=7-3-0, 7=7-3-0, 8=7-3-0
Max Grav 6=158 (LC 1), 7=451 (LC 1), 8=161 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-72/0, 5-6=-70/0, 1-2=0/0, 2-3=0/75, 3-4=0/75, 4-5=0/0
BOT CHORD 7-8=0/130, 6-7=0/126
WEBS 2-8=-150/0, 2-7=-239/0, 3-7=-163/0, 4-7=-235/0, 4-6=-147/0

NOTES
1) Gable requires continuous bottom chord bearing.
2) All bearings are assumed to be SP No.2 .
3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F217	Floor	1	1	I72478836 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 9.05 S 8.73 Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:37:58 Page: 1
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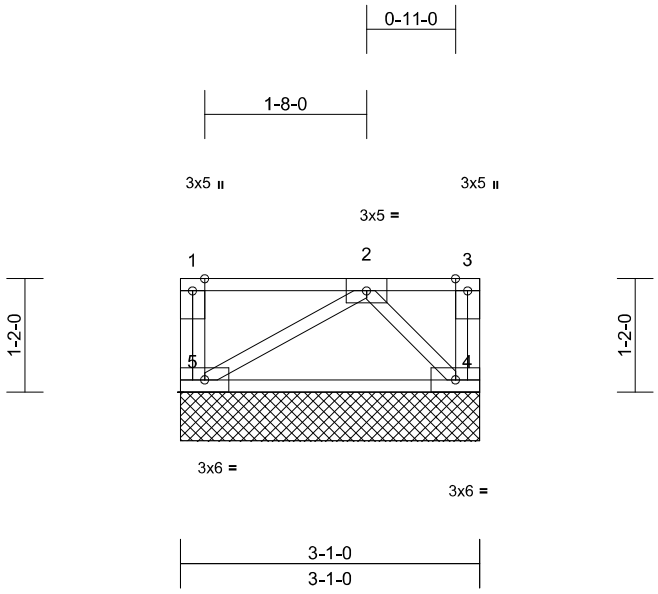

Scale = 1:23.8

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 20%F, 11%E

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=3-1-0, 5=3-1-0
Max Grav 4=156 (LC 1), 5=156 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-73/0, 3-4=-24/0, 1-2=0/0, 2-3=0/0
BOT CHORD 4-5=0/117
WEBS 2-5=-136/0, 2-4=-166/0

NOTES
1) Gable requires continuous bottom chord bearing.
2) All bearings are assumed to be SP No.2 .
3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F22	Floor	1	1	I72478837 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 9.05 S 8.73 Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:37:56 Page: 1
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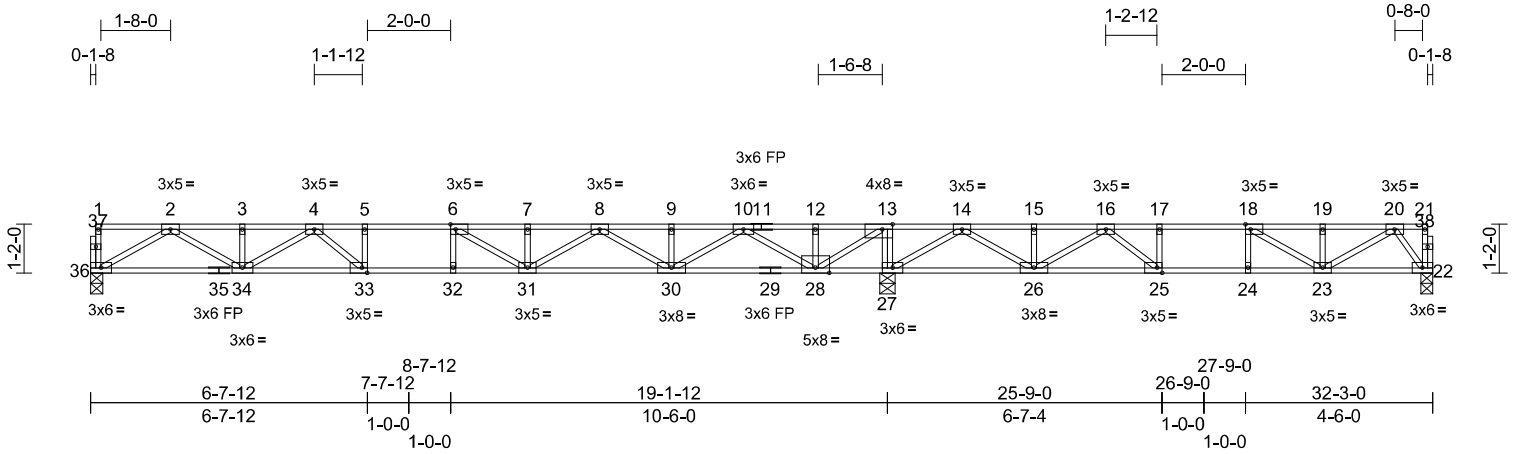

Scale = 1:55.4

Plate Offsets (X, Y): [6:0-1-8,Edge], [13:0-3-0,Edge], [18:0-1-8,Edge], [25:0-1-8,Edge], [33:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.86	Vert(LL)	-0.30	31-32	>765	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.39	31-32	>590	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.05	27	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 162 lb	FT = 20%F, 11%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 2-2-0 oc bracing.

REACTIONS (size) 22=0-3-8, 27=0-4-8, 36=0-3-8
Max Uplift 22=-13 (LC 3)
Max Grav 22=466 (LC 4), 27=1761 (LC 1), 36=717 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-36=-57/0, 21-22=-21/0, 1-2=-3/0, 2-3=-1931/0, 3-4=-1931/0, 4-5=-2788/0, 5-6=-2788/0, 6-7=-2668/0, 7-8=-2668/0, 8-9=-1526/64, 9-10=-1526/64, 10-12=0/1125, 12-13=0/1125, 13-14=0/2592, 14-15=-524/1134, 15-16=-524/1134, 16-17=-1184/401, 17-18=-1184/401, 18-19=-890/61, 19-20=-890/61, 20-21=-1/0
BOT CHORD 34-36=0/1113, 33-34=0/2476, 32-33=0/2788, 31-32=0/2788, 30-31=0/2206, 28-30=-394/570, 27-28=-2592/0, 26-27=-1574/0, 25-26=-769/978, 24-25=-401/1184, 23-24=-401/1184, 22-23=-20/342
WEBS 5-33=-244/0, 6-32=-73/86, 13-27=-1047/0, 17-25=-320/0, 18-24=-130/10, 2-36=-1283/0, 2-34=0/955, 3-34=-148/0, 4-34=-636/0, 4-33=-21/507, 6-31=-576/32, 7-31=-190/37, 8-31=0/590, 8-30=-853/0, 9-30=-140/0, 10-30=0/1174, 10-28=-1449/0, 12-28=-136/0, 13-28=0/1712, 14-27=-1344/0, 14-26=0/1066, 15-26=-160/0, 16-26=-757/0, 16-25=0/722, 18-23=-341/394, 19-23=-232/0, 20-23=-48/640, 20-22=-565/35

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) All bearings are assumed to be SP No.2 .
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 22.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F27	Floor	1	1	I72478838
					Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

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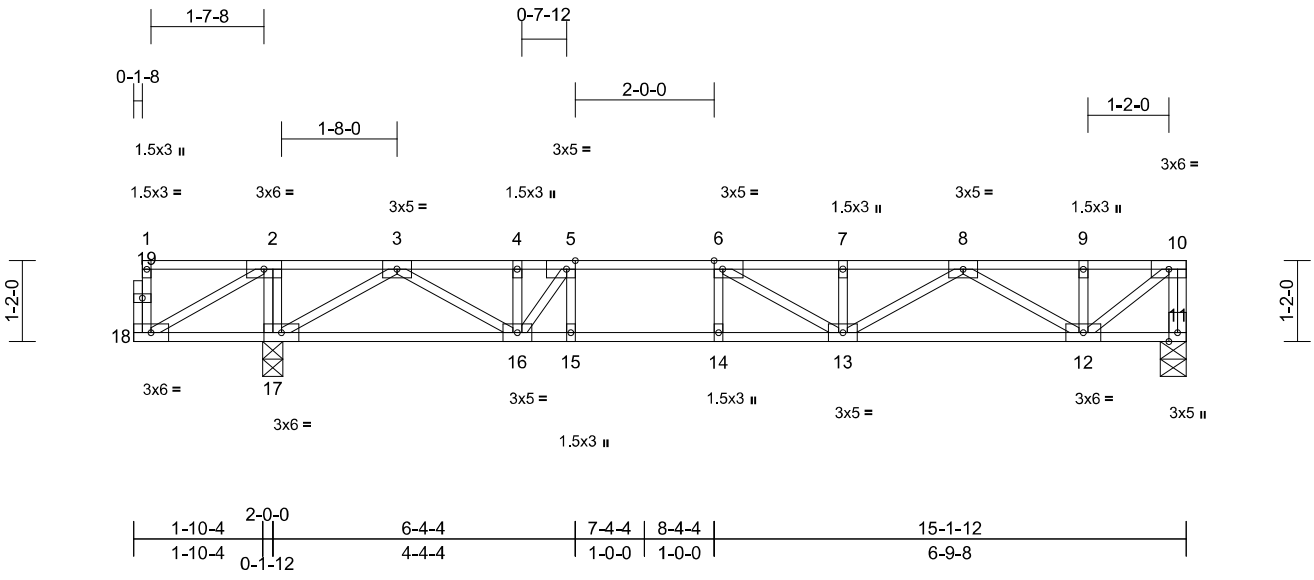

Scale = 1:33.2

Plate Offsets (X, Y): [5:0-1-8,Edge], [6:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.62	Vert(LL)	-0.14	13-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.94	Vert(CT)	-0.18	13-14	>854	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 80 lb	FT = 20%F, 11%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, Except:
6-0-0 oc bracing: 17-18
2-2-0 oc bracing: 14-15.

REACTIONS (size) 11=0-4-8, 17=0-3-8
Max Grav 11=569 (LC 4), 17=744 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-61/0, 10-11=-565/0, 1-2=-4/0, 2-3=0/111, 3-4=-1376/0, 4-5=-1376/0, 5-6=-1691/0, 6-7=-1689/0, 7-8=-1689/0, 8-9=-681/0, 9-10=-681/0
BOT CHORD 17-18=-111/0, 16-17=0/830, 15-16=0/1691, 14-15=0/1691, 13-14=0/1691, 12-13=0/1291, 11-12=0/0
WEBS 2-17=-223/0, 5-15=0/216, 6-14=-116/17, 2-18=0/131, 3-17=-975/0, 3-16=0/657, 4-16=-74/161, 5-16=-691/0, 6-13=-256/173, 7-13=-202/0, 8-13=0/465, 8-12=-712/0, 9-12=-141/0, 10-12=0/860

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All bearings are assumed to be SP No.2 .
3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F23	Floor	2	1	I72478839 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

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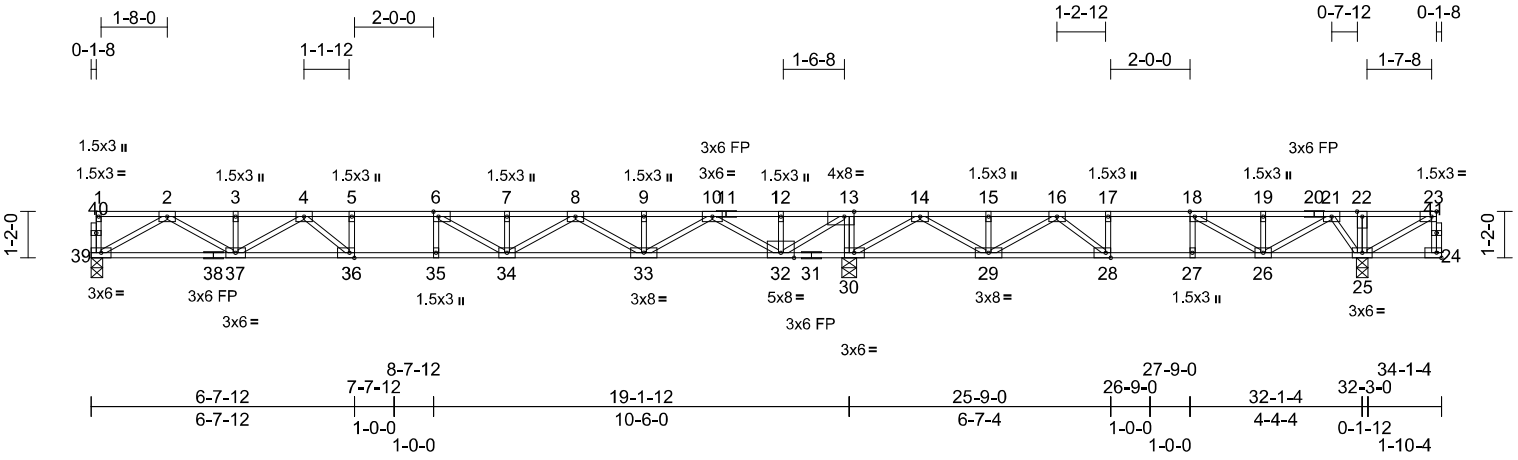


Scale = 1:58.3

Plate Offsets (X, Y): [6:0-1-8,Edge], [13:0-3-0,Edge], [18:0-1-8,Edge], [23:0-1-8,Edge], [28:0-1-8,Edge], [36:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.86	Vert(LL)	-0.30	34-35	>766	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.39	34-35	>591	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.05	30	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 173 lb	FT = 20%F, 11%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 2-2-0 oc bracing.

REACTIONS (size) 25=0-3-8, 30=0-4-8, 39=0-3-8
Max Grav 25=639 (LC 4), 30=1758 (LC 3), 39=716 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-39=-57/0, 23-24=0/8, 1-2=-3/0, 2-3=-1930/0, 3-4=-1930/0, 4-5=-2786/0, 5-6=-2786/0, 6-7=-2665/0, 7-8=-2665/0, 8-9=-1522/68, 9-10=-1522/68, 10-12=0/1130, 12-13=0/1130, 13-14=0/2598, 14-15=-513/1174, 15-16=-513/1174, 16-17=-1163/483, 17-18=-1163/483, 18-19=-859/173, 19-21=-859/173, 21-22=0/110, 22-23=0/113
BOT CHORD 37-39=0/1112, 36-37=0/2474, 35-36=0/2786, 34-35=0/2786, 33-34=0/2203, 32-33=-399/565, 30-32=-2598/0, 29-30=-1598/0, 28-29=-828/963, 27-28=-483/1163, 26-27=-483/1163, 25-26=-150/311, 24-25=0/0
WEBS 5-36=-244/0, 6-35=-73/86, 13-30=-1047/0, 17-28=-317/0, 18-27=-128/19, 22-25=-142/0, 2-39=-1282/0, 2-37=0/954, 3-37=-148/0, 4-37=-636/0, 4-36=-21/507, 6-34=-576/32, 7-34=-190/37, 8-34=0/590, 8-33=-854/0, 9-33=-140/0, 10-33=0/1175, 10-32=-1450/0, 12-32=-136/0, 13-32=0/1714, 14-30=-1339/0, 14-29=0/1061, 15-29=-160/0, 16-29=-752/0, 16-28=0/714, 18-26=-377/359, 19-26=-231/0, 21-26=-26/655, 21-25=-555/67, 23-25=-131/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) All bearings are assumed to be SP No.2 .
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

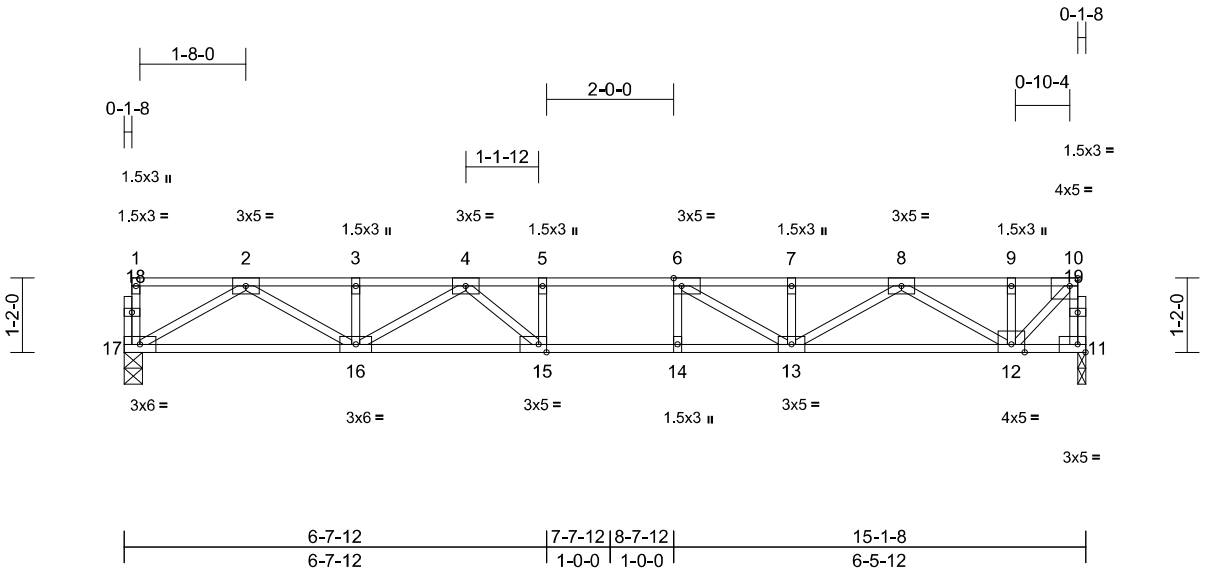
April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F24	Floor	2	1	I72478840 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 9.05 S 8.73 Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:37:57 Page: 1
ID:VgbXZtxk2GD9Nm6rxIIx1VzUI98-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:36.3

Plate Offsets (X, Y): [6:0-1-8,Edge], [10:0-1-8,Edge], [15:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.15	15-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.20	15-16	>891	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 77 lb	FT = 20%F, 11%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) 11=0-1-8, 17=0-3-8
Max Grav 11=649 (LC 1), 17=649 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-17=-57/0, 10-11=-652/0, 1-2=-3/0, 2-3=-1706/0, 3-4=-1706/0, 4-5=-2302/0, 5-6=-2302/0, 6-7=-1982/0, 7-8=-1982/0, 8-9=-628/0, 9-10=-628/0
BOT CHORD 16-17=0/1000, 15-16=0/2132, 14-15=0/2302, 13-14=0/2302, 12-13=0/1423, 11-12=0/39
WEBS 5-15=-210/0, 6-14=-53/84, 2-17=-1153/0, 2-16=0/824, 3-16=-139/0, 4-16=-496/0, 4-15=-13/430, 6-13=-566/0, 7-13=-175/35, 8-13=0/652, 8-12=-929/0, 9-12=-125/0, 10-12=0/860

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) All bearings are assumed to be SP No.2 .
4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 11.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

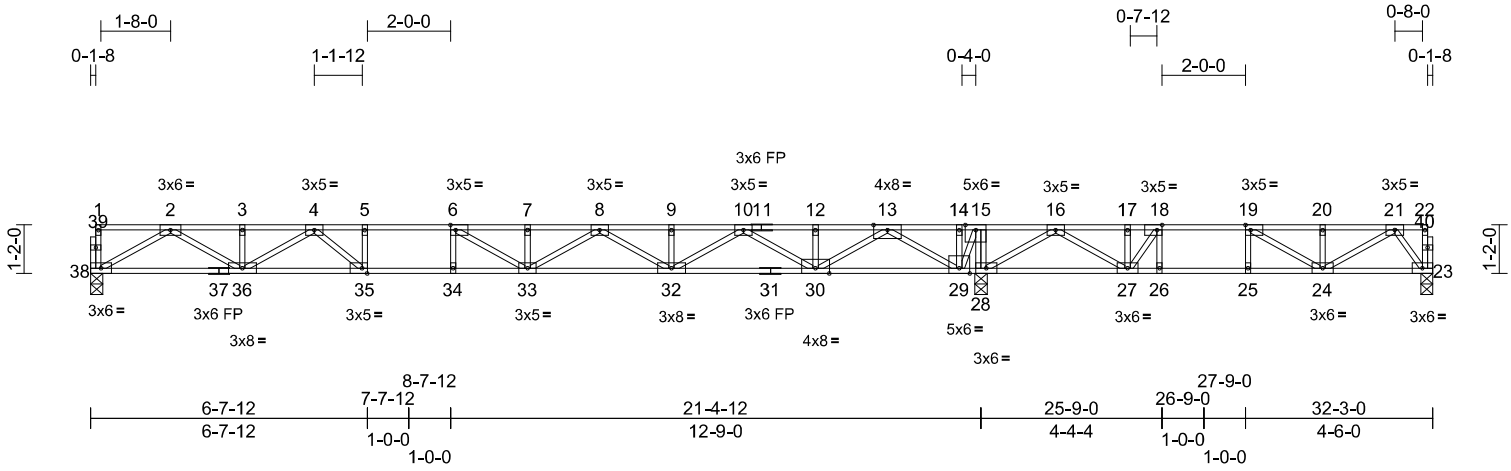
April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F21	Floor	6	1	I72478841 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 9.05 S 8.73 Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:37:55 Page: 1
ID:ZHUn9BvUWfzR8SySqKFTy4zUl9A-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:55.4

Plate Offsets (X, Y): [6:0-1-8,Edge], [18:0-1-8,Edge], [19:0-1-8,Edge], [35:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.77	Vert(LL)	-0.40	33-34	>638	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.95	Vert(CT)	-0.54	33-34	>472	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.06	28	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 165 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.1(flat) *Except* 11-22:2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat) *Except* 38-37:2x4 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 5-8-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS (size) 23=0-3-8, 28=0-3-8, 38=0-3-8
Max Uplift 23=-146 (LC 3)
Max Grav 23=368 (LC 4), 28=1848 (LC 1), 38=792 (LC 3)

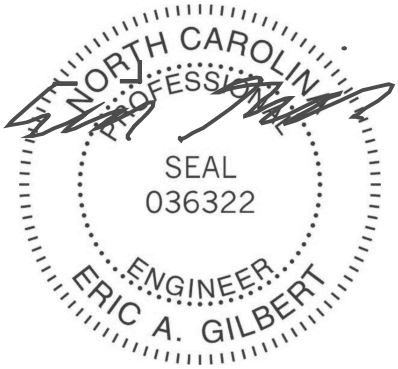
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-38=-58/0, 22-23=-30/0, 1-2=-3/0, 2-3=-2182/0, 3-4=-2182/0, 4-5=-3331/0, 5-6=-3331/0, 6-7=-3435/0, 7-8=-3435/0, 8-9=-2523/0, 9-10=-2523/0, 10-12=-638/26, 12-13=-638/26, 13-14=0/2513, 14-15=0/2513, 15-16=0/3014, 16-17=-382/1627, 17-18=-382/1627, 18-19=-688/1052, 19-20=-674/356, 20-21=-674/356, 21-22=-2/0

BOT CHORD 36-38=0/1238, 35-36=0/2860, 34-35=0/3331, 33-34=0/3331, 32-33=0/3080, 30-32=0/1694, 29-30=-926/0, 28-29=-3014/0, 27-28=-2148/0, 26-27=-1052/688, 25-26=-1052/688, 24-25=-1052/688, 23-24=-124/265

WEBS 5-35=-352/0, 6-34=-141/44, 15-28=-1121/0, 18-26=0/397, 19-25=-224/0, 2-38=-1428/0, 2-36=0/1102, 3-36=-158/0, 4-36=-792/0, 4-35=0/754, 6-33=-387/339, 7-33=-235/9, 8-33=0/436, 8-32=-675/0, 9-32=-144/0, 10-32=0/992, 10-30=-1258/0, 12-30=-137/0, 13-30=0/1578, 13-29=-1853/0, 14-29=-101/25, 15-29=0/1147, 16-28=-1323/0, 16-27=0/963, 17-27=0/360, 18-27=-1275/0, 19-24=-16/806, 20-24=-298/0, 21-24=-271/477, 21-23=-437/207

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Bearings are assumed to be: Joint 38 SP No.2 , Joint 28 SP No.1 , Joint 23 SP No.1 .
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 146 lb uplift at joint 23.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Required 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



April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F25	Floor	6	1	I72478842 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 9.05 S 8.73 Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:37:57 Page: 1
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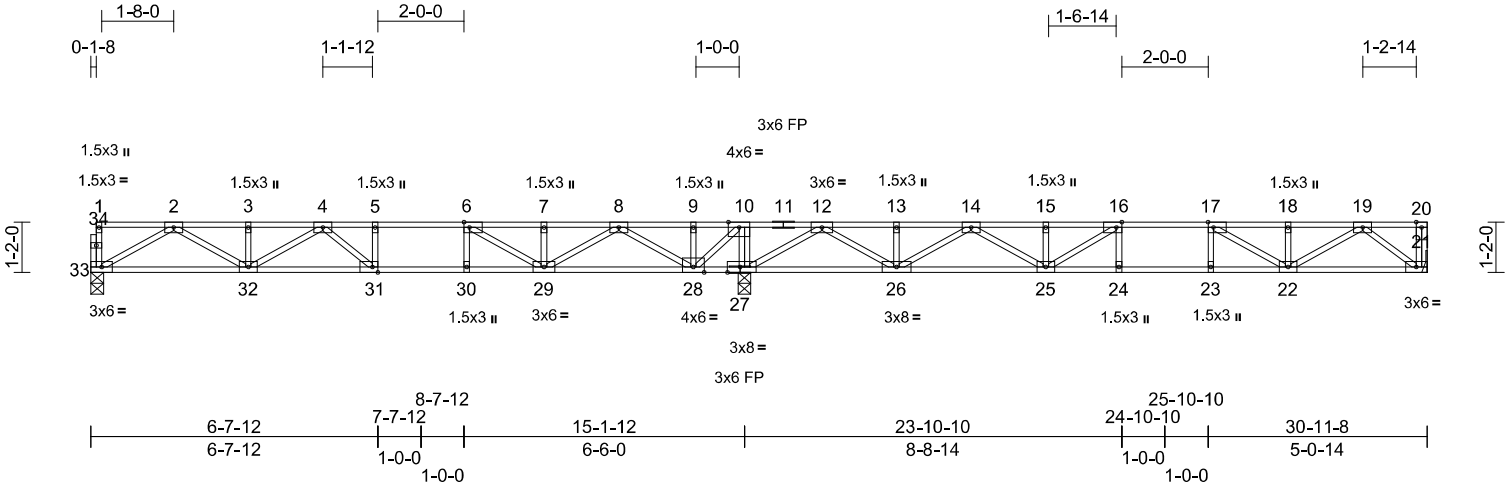

Scale = 1:53.5

Plate Offsets (X, Y): [6:0-1-8,Edge], [16:0-1-8,Edge], [17:0-1-8,Edge], [27:0-3-8,Edge], [31:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.88	Vert(LL)	-0.18	24-25	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.22	24-25	>860	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.03	21	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 157 lb	FT = 20%F, 11%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 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 21= Mechanical, 27=0-3-8, 33=0-3-8
Max Grav 21=596 (LC 4), 27=1634 (LC 1), 33=570 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-33=-56/0, 20-21=-43/0, 1-2=-3/0, 2-3=-1444/0, 3-4=-1444/0, 4-5=-1733/118, 5-6=-1733/118, 6-7=-1179/510, 7-8=-1179/510, 8-9=0/1347, 9-10=0/1347, 10-12=0/2031, 12-13=-730/372, 13-14=-730/372, 14-15=-1808/0, 15-16=-1808/0, 16-17=-1878/0, 17-18=-1366/0, 18-19=-1366/0, 19-20=0/0
BOT CHORD 32-33=0/869, 31-32=0/1729, 30-31=-118/1733, 29-30=-118/1733, 28-29=-816/508, 26-28=-2119/0, 25-26=-124/1379, 24-25=0/1878, 23-24=0/1878, 22-23=0/1878, 21-22=0/711
WEBS 5-31=-38/108, 6-30=0/169, 10-27=-884/0, 16-24=-63/79, 17-23=-53/85, 2-33=-1001/0, 2-32=0/672, 3-32=-128/0, 4-32=-333/88, 4-31=-329/36, 6-29=-956/0, 7-29=-102/94, 8-29=0/889, 8-28=-1212/0, 9-28=-114/9, 10-28=0/1120, 12-27=-1510/0, 12-26=0/1149, 13-26=-140/0, 14-26=-831/0, 14-25=0/567, 15-25=-171/26, 16-25=-487/0, 17-22=-592/12, 18-22=-170/28, 19-22=0/765, 19-21=-895/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) Bearings are assumed to be: Joint 33 SP No.2 , Joint 27 SP No.2 .
4) Refer to girder(s) for truss to truss connections.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-2nd Floor-Franklin FA SP 3CG
25030169-A	F26	Floor	7	1	I72478843 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 9.05 S 8.73 Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:37:57 Page: 1
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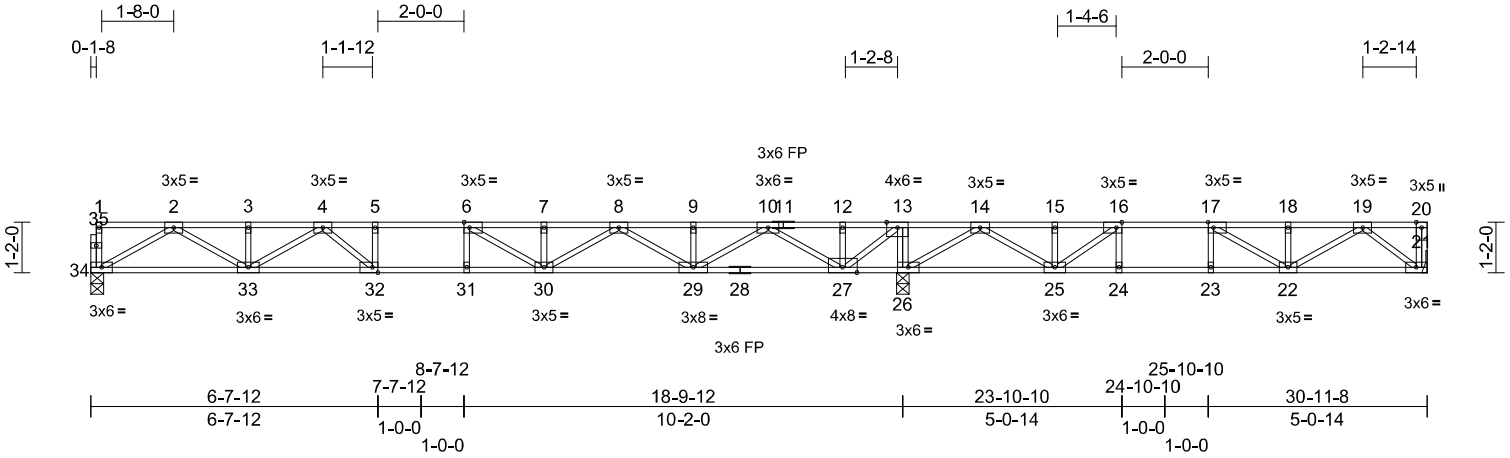


Scale = 1:53.5

Plate Offsets (X, Y): [6:0-1-8,Edge], [16:0-1-8,Edge], [17:0-1-8,Edge], [32:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.82	Vert(LL)	-0.27	30-31	>832	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.36	30-31	>628	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.04	26	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 157 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) *Except* 11-20:2x4 SP No.1(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= Mechanical, 26=0-3-8, 34=0-3-8
Max Uplift 21=-28 (LC 3)
Max Grav 21=448 (LC 4), 26=1676 (LC 1), 34=706 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-34=-57/0, 20-21=-48/0, 1-2=-3/0, 2-3=-1895/0, 3-4=-1895/0, 4-5=-2711/0, 5-6=-2711/0, 6-7=-2559/0, 7-8=-2559/0, 8-9=-1383/0, 9-10=-1383/0, 10-12=0/1131, 12-13=0/1131, 13-14=0/2294, 14-15=-608/1084, 15-16=-608/1084, 16-17=-1042/566, 17-18=-963/146, 18-19=-963/146, 19-20=0/0

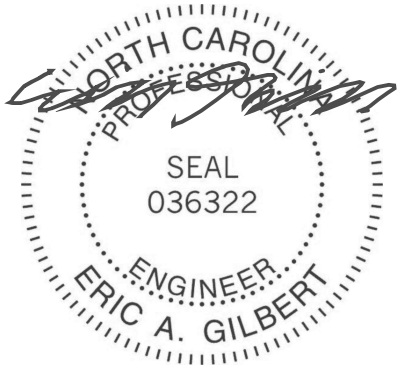
BOT CHORD 33-34=0/1095, 32-33=0/2421, 31-32=0/2711, 30-31=0/2711, 29-30=0/2081, 27-29=-210/409, 26-27=-2294/0, 25-26=-1473/4, 24-25=-566/1042, 23-24=-566/1042, 22-23=-566/1042, 21-22=-61/519

WEBS 5-32=-247/0, 6-31=-75/79, 13-26=-1009/0, 16-24=0/216, 17-23=-172/0, 2-34=-1262/0, 2-33=0/934, 3-33=-146/0, 4-33=-614/0, 4-32=0/514, 6-30=-542/41, 7-30=-191/32, 8-30=0/590, 8-29=-854/0, 9-29=-140/0, 10-29=0/1174, 10-27=-1451/0, 12-27=-125/0, 13-27=0/1452, 14-26=-1253/0, 14-25=0/902, 15-25=-72/130, 16-25=-989/0, 17-22=-91/486, 18-22=-252/0, 19-22=-99/519, 19-21=-653/77

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Bearings are assumed to be: Joint 34 SP No.2 , Joint 26 SP No.2 .
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 21.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

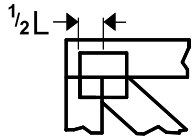


April 4,2025

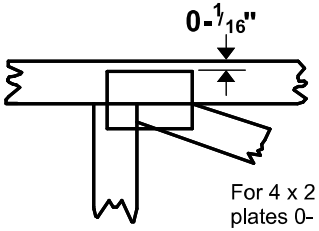
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

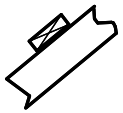
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

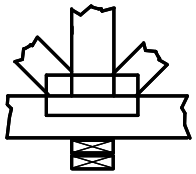
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

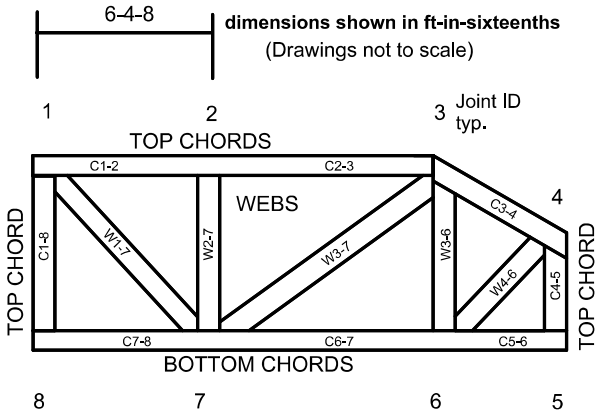


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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
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⚠ General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.