ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 25030169-02
Install 36 Magnolia Acres-Crawl-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: I72478625 thru I72478641

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-Crawl-Franklin FA SP 3CG FL I72478625
25030169-02	F101	Floor Supported Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:15 Page: 1
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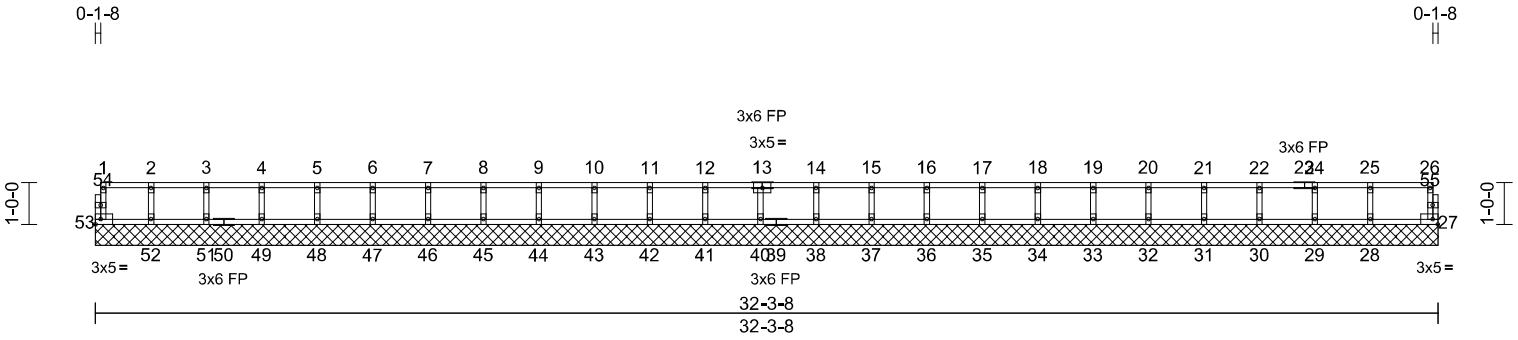


Scale = 1:55.5

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	27	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 125 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.

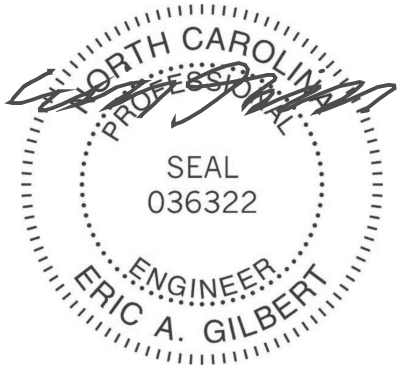
REACTIONS (size) 27=32-3-8, 28=32-3-8, 29=32-3-8, 30=32-3-8, 31=32-3-8, 32=32-3-8, 33=32-3-8, 34=32-3-8, 35=32-3-8, 36=32-3-8, 37=32-3-8, 38=32-3-8, 40=32-3-8, 41=32-3-8, 42=32-3-8, 43=32-3-8, 44=32-3-8, 45=32-3-8, 46=32-3-8, 47=32-3-8, 48=32-3-8, 49=32-3-8, 51=32-3-8, 52=32-3-8, 53=32-3-8
Max Grav 27=73 (LC 1), 28=162 (LC 1), 29=142 (LC 1), 30=148 (LC 1), 31=146 (LC 1), 32=147 (LC 1), 33=147 (LC 1), 34=147 (LC 1), 35=147 (LC 1), 36=146 (LC 1), 37=148 (LC 1), 38=143 (LC 1), 40=147 (LC 1), 41=150 (LC 1), 42=146 (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), 49=146 (LC 1), 51=148 (LC 1), 52=143 (LC 1), 53=56 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-53=-51/0, 26-27=-68/0, 1-2=-11/0, 2-3=-11/0, 3-4=-11/0, 4-5=-11/0, 5-6=-11/0, 6-7=-11/0, 7-8=-11/0, 8-9=-11/0, 9-10=-11/0, 10-11=-11/0, 11-12=-11/0, 12-14=-18/0, 14-15=-18/0, 15-16=-18/0, 16-17=-18/0, 17-18=-18/0, 18-19=-18/0, 19-20=-18/0, 20-21=-18/0, 21-22=-18/0, 22-24=-18/0, 24-25=-18/0, 25-26=-18/0
BOT CHORD 52-53=0/11, 51-52=0/11, 49-51=0/11, 48-49=0/11, 47-48=0/11, 46-47=0/11, 45-46=0/11, 44-45=0/11, 43-44=0/11, 42-43=0/11, 41-42=0/11, 40-41=0/11, 38-40=0/18, 37-38=0/18, 36-37=0/18, 35-36=0/18, 34-35=0/18, 33-34=0/18, 32-33=0/18, 31-32=0/18, 30-31=0/18, 29-30=0/18, 28-29=0/18, 27-28=0/18
WEBS 2-52=-130/0, 3-51=-134/0, 4-49=-133/0, 5-48=-133/0, 6-47=-133/0, 7-46=-133/0, 8-45=-133/0, 9-44=-133/0, 10-43=-134/0, 11-42=-132/0, 12-41=-137/0, 13-40=-134/0, 14-38=-130/0, 15-37=-134/0, 16-36=-133/0, 17-35=-133/0, 18-34=-133/0, 19-33=-133/0, 20-32=-133/0, 21-31=-133/0, 22-30=-134/0, 24-29=-130/0, 25-28=-146/0

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-Crawl-Franklin FA SP 3CG FL I72478626
25030169-02	F105	Floor Supported Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:16 Page: 1
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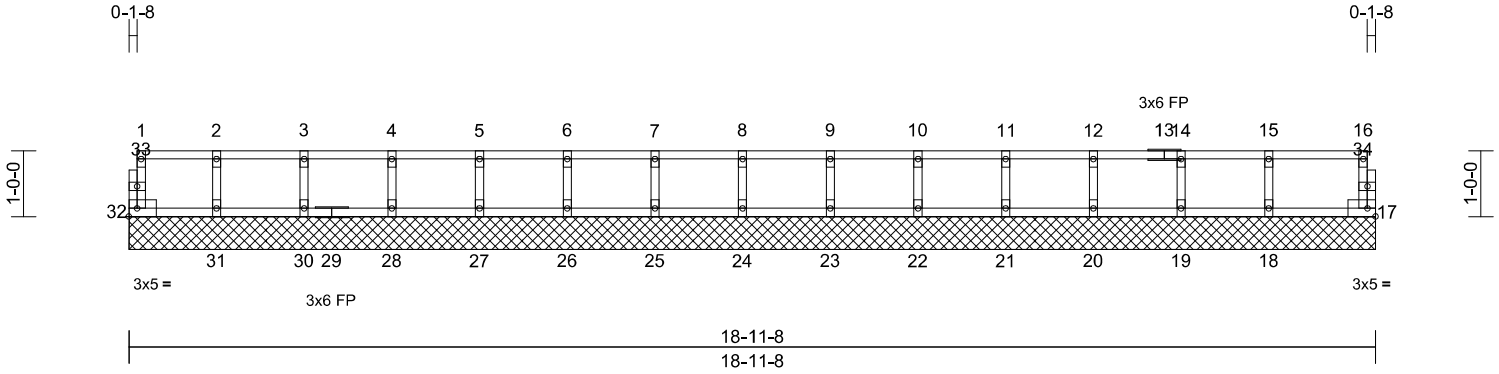

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	17	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 74 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)

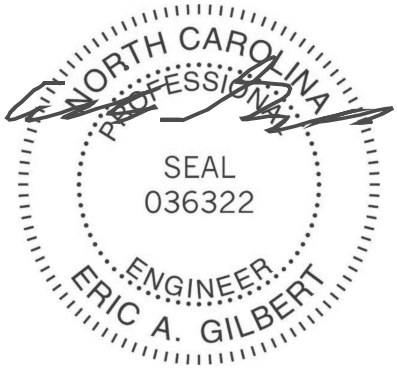
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 17=18-11-8, 18=18-11-8, 19=18-11-8, 20=18-11-8, 21=18-11-8, 22=18-11-8, 23=18-11-8, 24=18-11-8, 25=18-11-8, 26=18-11-8, 27=18-11-8, 28=18-11-8, 30=18-11-8, 31=18-11-8, 32=18-11-8
Max Grav 17=72 (LC 1), 18=164 (LC 1), 19=142 (LC 1), 20=148 (LC 1), 21=146 (LC 1), 22=147 (LC 1), 23=147 (LC 1), 24=147 (LC 1), 25=147 (LC 1), 26=147 (LC 1), 27=147 (LC 1), 28=146 (LC 1), 30=149 (LC 1), 31=138 (LC 1), 32=60 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-32=-54/0, 16-17=-68/0, 1-2=-16/0, 2-3=-16/0, 3-4=-16/0, 4-5=-16/0, 5-6=-16/0, 6-7=-16/0, 7-8=-16/0, 8-9=-16/0, 9-10=-16/0, 10-11=-16/0, 11-12=-16/0, 12-14=-16/0, 14-15=-16/0, 15-16=-16/0
BOT CHORD 31-32=0/16, 30-31=0/16, 28-30=0/16, 27-28=0/16, 26-27=0/16, 25-26=0/16, 24-25=0/16, 23-24=0/16, 22-23=0/16, 21-22=0/16, 20-21=0/16, 19-20=0/16, 18-19=0/16, 17-18=0/16
WEBS 2-31=-128/0, 3-30=-135/0, 4-28=-133/0, 5-27=-133/0, 6-26=-133/0, 7-25=-133/0, 8-24=-133/0, 9-23=-133/0, 10-22=-133/0, 11-21=-133/0, 12-20=-134/0, 14-19=-129/0, 15-18=-147/0

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-Crawl-Franklin FA SP 3CG FL I72478627
25030169-02	F110	Floor	1	1	Job Reference (optional)

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

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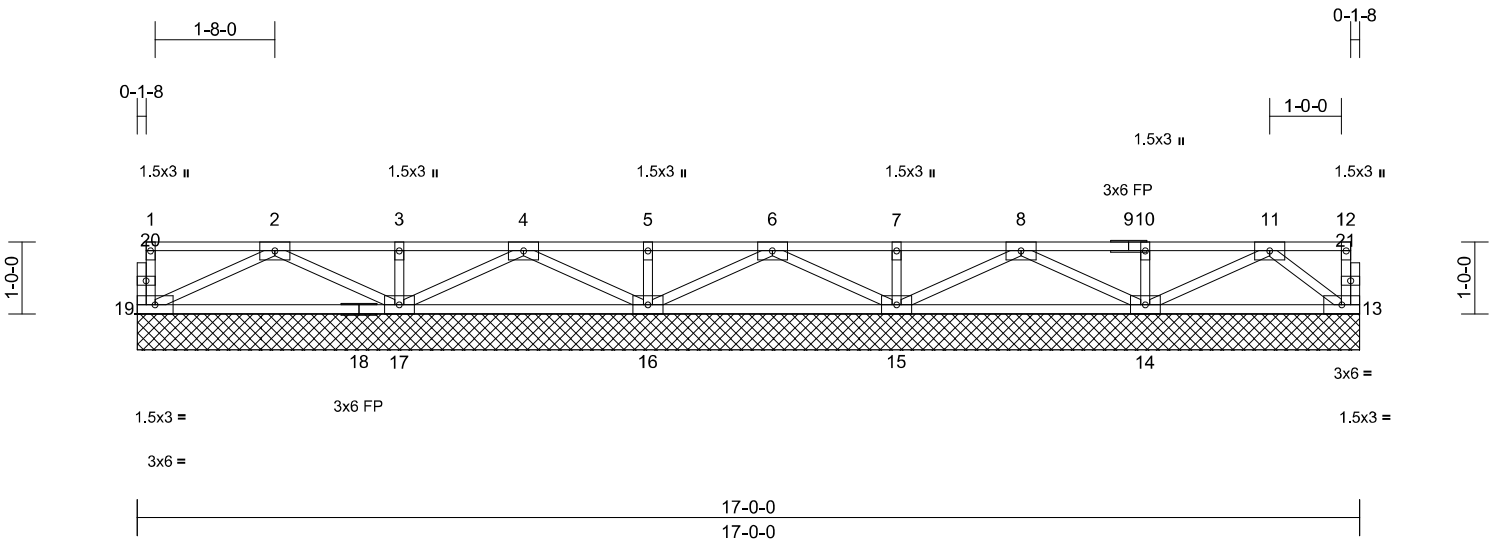

Scale = 1:32.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.17	Vert(LL)	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	13	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 85 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* 13-21:2x4 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) 13=17-0-0, 14=17-0-0, 15=17-0-0, 16=17-0-0, 17=17-0-0, 19=17-0-0
Max Grav 13=121 (LC 1), 14=369 (LC 1), 15=387 (LC 1), 16=379 (LC 1), 17=418 (LC 1), 19=155 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-19=-70/0, 12-13=-36/0, 1-2=-5/0, 2-3=0/88, 3-4=0/88, 4-5=0/83, 5-6=0/83, 6-7=0/81, 7-8=0/81, 8-10=0/52, 10-11=0/52, 11-12=-3/0
BOT CHORD 17-19=0/151, 16-17=0/81, 15-16=0/83, 14-15=0/98, 13-14=0/99
WEBS 2-19=-162/0, 2-17=-267/0, 3-17=-173/0, 4-17=-189/0, 4-16=-184/0, 5-16=-178/0, 6-16=-186/0, 6-15=-184/0, 7-15=-179/0, 8-15=-201/0, 8-14=-168/0, 10-14=-182/0, 11-14=-169/0, 11-13=-122/0

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

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-Crawl-Franklin FA SP 3CG FL
25030169-02	F114	Floor	1	1	I72478628 Job Reference (optional)

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

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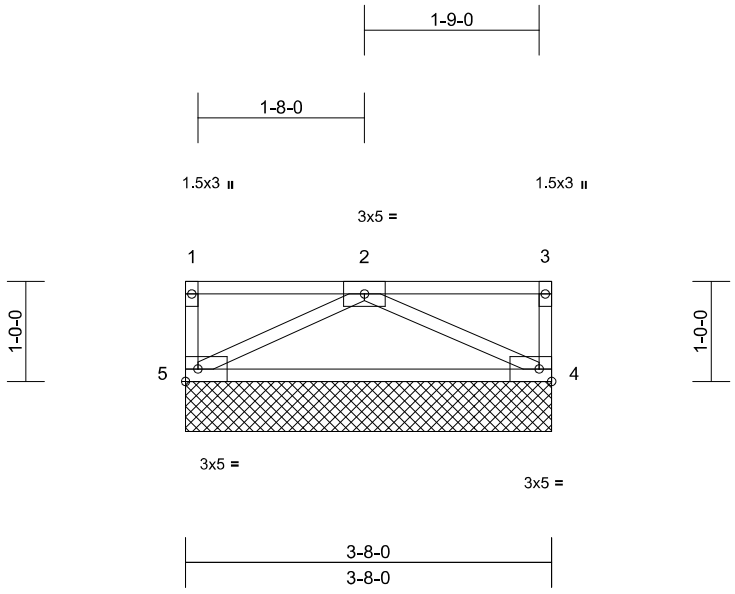

Scale = 1:23.1

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	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	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 3-8-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=3-8-0, 5=3-8-0
Max Grav 4=195 (LC 1), 5=195 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-65/0, 3-4=-70/0, 1-2=0/0, 2-3=0/0
BOT CHORD 4-5=0/221
WEBS 2-5=-248/0, 2-4=-246/0

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

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-Crawl-Franklin FA SP 3CG FL I72478629
25030169-02	F117	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:17 Page: 1
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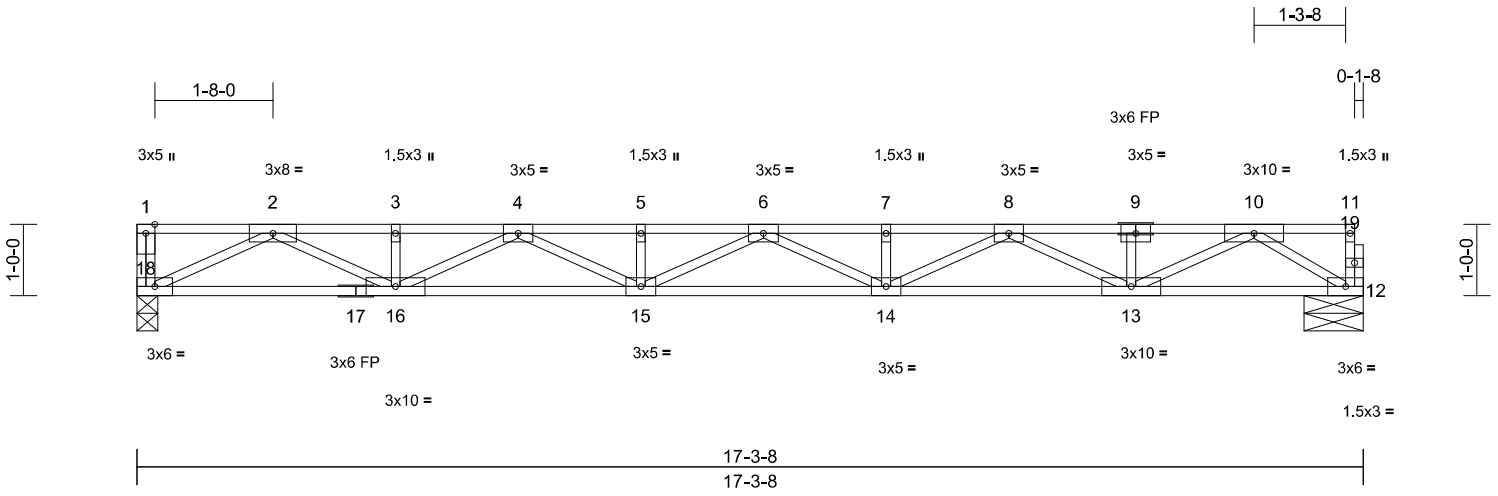

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.51	Vert(LL)	-0.38	14-15	>537	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.53	14-15	>387	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.08	12	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 87 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 17-12:2x4 SP No.1(flat)
WEBS 2x4 SP No.2(flat)
OTHERS 2x4 SP No.2(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 12=0-10-0, 18=0-3-8
Max Grav 12=931 (LC 1), 18=937 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-75/0, 11-12=-53/0, 1-2=0/0, 2-3=-3008/0, 3-4=-3008/0, 4-5=-4417/0, 5-6=-4417/0, 6-7=-4336/0, 7-8=-4336/0, 8-10=-2770/0, 10-11=-4/0
BOT CHORD 16-18=0/1732, 15-16=0/3890, 14-15=0/4554, 13-14=0/3729, 12-13=0/1401
WEBS 2-18=-1927/0, 2-16=0/1430, 3-16=-162/0, 4-16=-989/0, 4-15=0/590, 5-15=-165/0, 6-15=-154/0, 6-14=-244/0, 7-14=-164/0, 8-14=0/681, 8-13=-1087/0, 9-13=-167/0, 10-13=0/1535, 10-12=-1642/0

NOTES
1) Bearings are assumed to be: Joint 18 SP No.2 , Joint 12 SP No.1 .
2) 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.
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.
4) 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-Crawl-Franklin FA SP 3CG FL I72478630
25030169-02	F118	Floor	1	1	Job Reference (optional)

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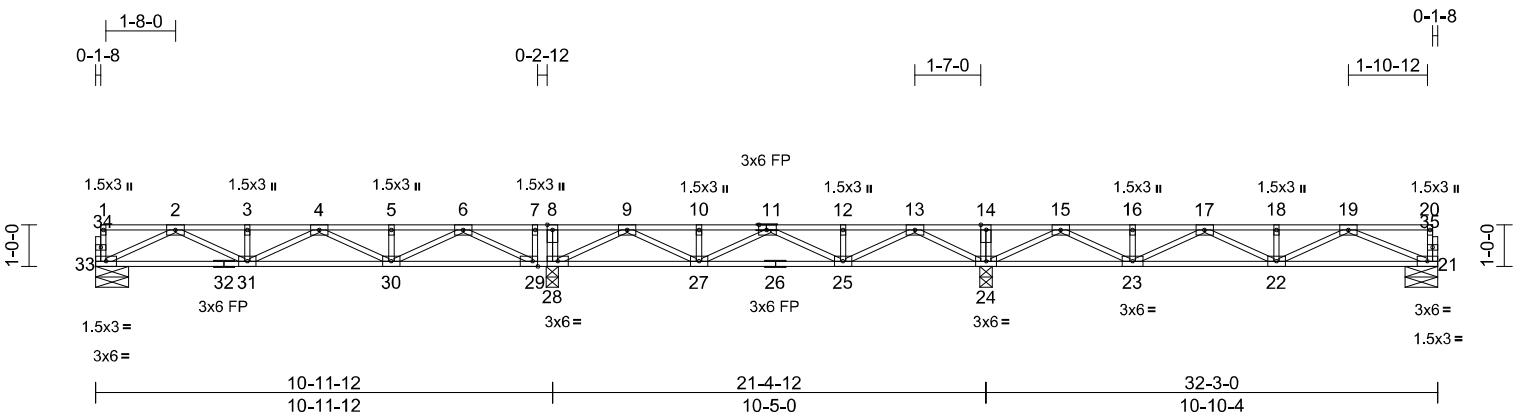


Scale = 1:55.4

Plate Offsets (X, Y): [11:0-2-4,Edge], [29:0-1-8,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	0.74	Vert(LL)	-0.06	29-30	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.39	Vert(CT)	-0.08	29-30	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.02	21	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 161 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)

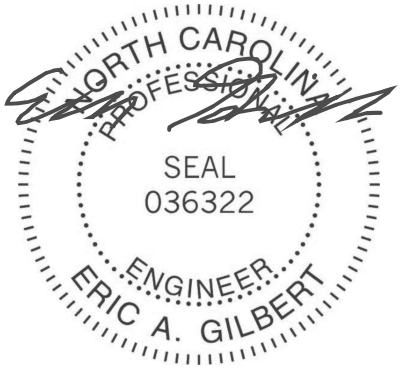
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 21=0-9-8, 24=0-3-8, 28=0-3-8, 33=0-9-8
Max Grav 21=407 (LC 5), 24=1082 (LC 4), 28=1075 (LC 3), 33=419 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-33=-57/0, 20-21=-65/0, 1-2=-4/0, 2-3=-1101/0, 3-4=-1101/0, 4-5=-960/44, 5-6=-960/44, 6-7=0/974, 7-8=0/974, 8-9=0/974, 9-10=-572/344, 10-12=-572/358, 12-13=-553/358, 13-14=0/1150, 14-15=0/1151, 15-16=-807/100, 16-17=-807/100, 17-18=-1083/0, 18-19=-1083/0, 19-20=-5/0
BOT CHORD 31-33=0/719, 30-31=0/1173, 29-30=-276/424, 28-29=-974/0, 27-28=-466/124, 25-27=-329/699, 24-25=-511/89, 23-24=-353/215, 22-23=0/1085, 21-22=0/765
WEBS 8-28=-495/0, 14-24=-157/0, 2-33=-796/0, 2-31=0/428, 3-31=-131/0, 4-31=-81/76, 4-30=-325/0, 5-30=-119/0, 6-30=0/685, 6-29=-1137/0, 7-29=0/319, 9-28=-800/0, 9-27=0/607, 10-27=-154/0, 11-27=-250/0, 11-25=-277/0, 12-25=-140/0, 13-25=0/642, 13-24=-918/0, 15-24=-1077/0, 15-23=0/753, 16-23=-138/0, 17-23=-396/0, 17-22=-2/100, 18-22=-128/0, 19-22=0/356, 19-21=-829/0

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-Crawl-Franklin FA SP 3CG FL I72478631
25030169-02	F122	Floor	1	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:17 Page: 1
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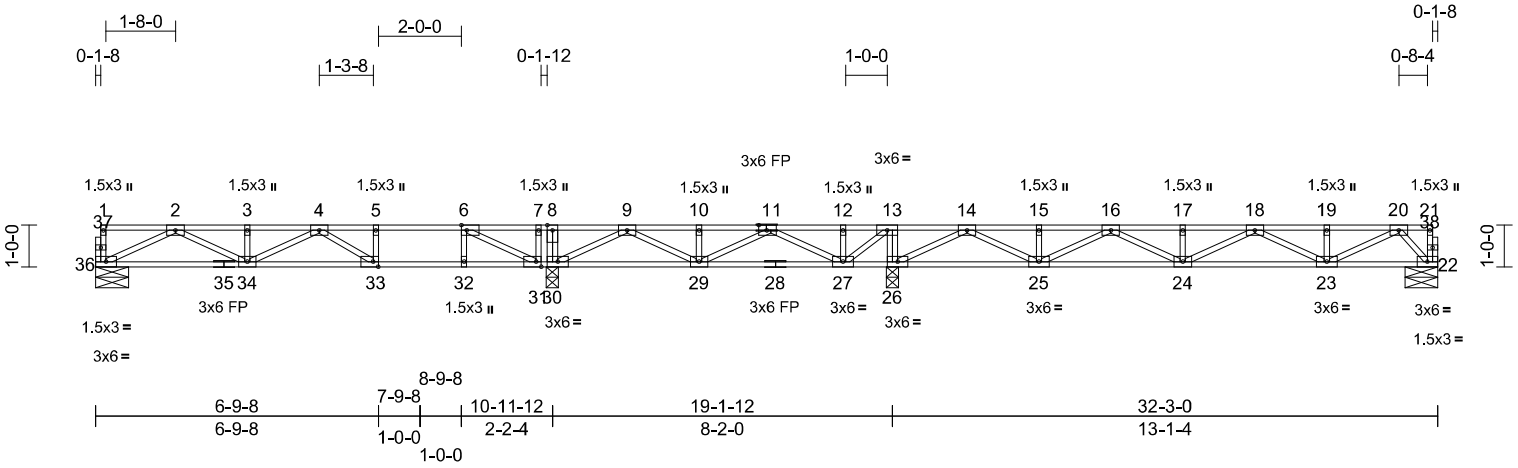

Scale = 1:55.4

Plate Offsets (X, Y): [6:0-1-8,Edge], [11:0-2-4,Edge], [31:0-1-8,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	0.92	Vert(LL)	-0.19	33-34	>669	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.27	33-34	>488	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.03	22	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 160 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 2-2-0 oc bracing.

REACTIONS (size) 22=0-9-8, 26=0-3-8, 30=0-3-8, 36=0-9-8
Max Grav 22=478 (LC 5), 26=1212 (LC 12), 30=783 (LC 3), 36=486 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-36=-56/0, 21-22=-9/0, 1-2=-4/0, 2-3=-1387/0, 3-4=-1387/0, 4-5=-1326/0, 5-6=-1326/0, 6-7=-228/105, 7-8=-228/105, 8-9=-228/105, 9-10=-535/229, 10-12=-535/964, 12-13=0/964, 13-14=0/1475, 14-15=-745/0, 15-16=-745/0, 16-17=-1520/0, 17-18=-1520/0, 18-19=-1099/0, 19-20=-1099/0, 20-21=-1/0
BOT CHORD 34-36=0/868, 33-34=0/1553, 32-33=0/1326, 31-32=0/1326, 30-31=-105/228, 29-30=0/396, 27-29=-566/356, 26-27=-1475/0, 25-26=-290/0, 24-25=0/1270, 23-24=0/1446, 22-23=0/428
WEBS 5-33=0/81, 6-32=0/189, 8-30=-349/0, 13-26=-603/0, 2-36=-962/0, 2-34=0/581, 3-34=-115/0, 4-34=-187/0, 4-33=-334/0, 6-31=-1287/0, 7-31=0/284, 9-30=-504/251, 9-29=-260/175, 10-29=-140/0, 11-29=0/465, 11-27=-785/0, 12-27=-119/0, 13-27=0/786, 14-26=-1320/0, 14-25=0/979, 15-25=-137/0, 16-25=-621/0, 16-24=0/314, 17-24=-137/0, 18-24=-6/83, 18-23=-389/0, 19-23=-139/0, 20-23=0/752, 20-22=-628/0

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-Crawl-Franklin FA SP 3CG FL I72478632
25030169-02	F124	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:18 Page: 1
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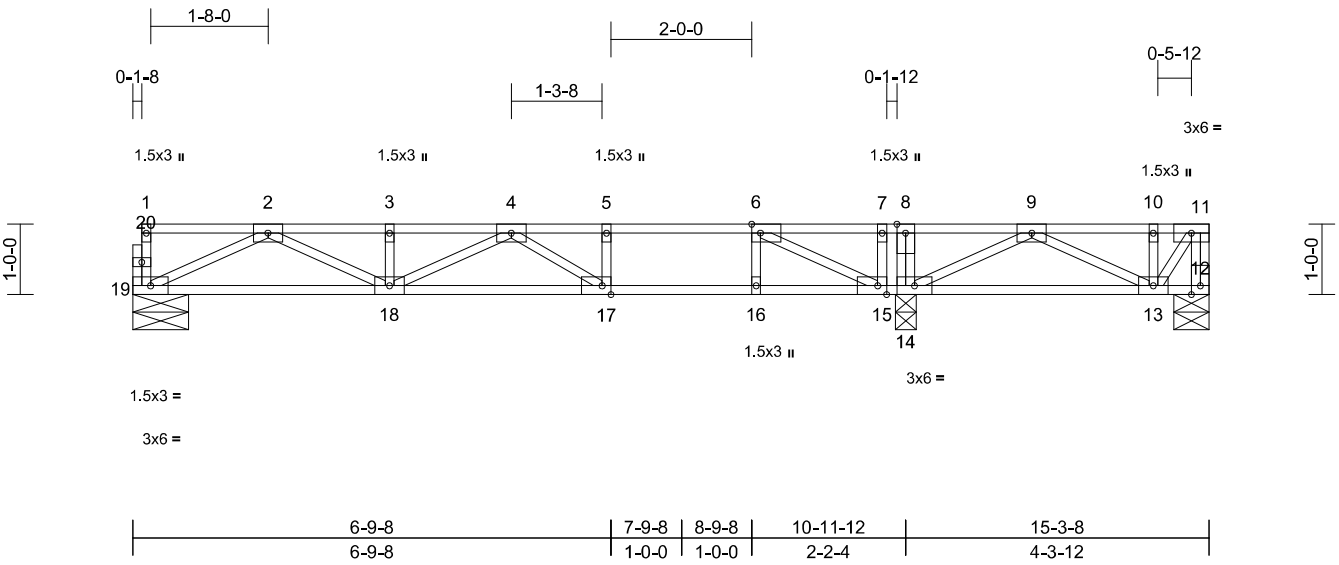


Scale = 1:32.8

Plate Offsets (X, Y): [6:0-1-8,Edge], [15:0-1-8,Edge], [17:0-1-8,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)	-0.19	17-18	>677	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.97	Vert(CT)	-0.26	17-18	>493	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.02	12	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)

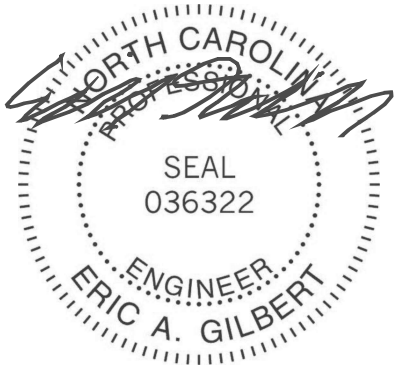
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS (size) 12=0-6-0, 14=0-3-8, 19=0-9-8
Max Grav 12=227 (LC 8), 14=641 (LC 1), 19=480 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-19=-56/0, 11-12=-231/0, 1-2=-4/0, 2-3=-1362/0, 3-4=-1362/0, 4-5=-1271/0, 5-6=-1271/0, 6-7=-238/0, 7-8=-238/0, 8-9=-238/0, 9-10=-172/0, 10-11=-172/0
BOT CHORD 18-19=0/856, 17-18=0/1515, 16-17=0/1271, 15-16=0/1271, 14-15=0/238, 13-14=0/349, 12-13=0/0
WEBS 5-17=0/71, 6-16=0/181, 8-14=-337/0, 2-19=-948/0, 2-18=0/567, 3-18=-114/0, 4-18=-172/0, 4-17=-311/0, 6-15=-1245/0, 7-15=0/277, 9-14=-218/49, 9-13=-199/0, 10-13=-120/0, 11-13=0/284

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



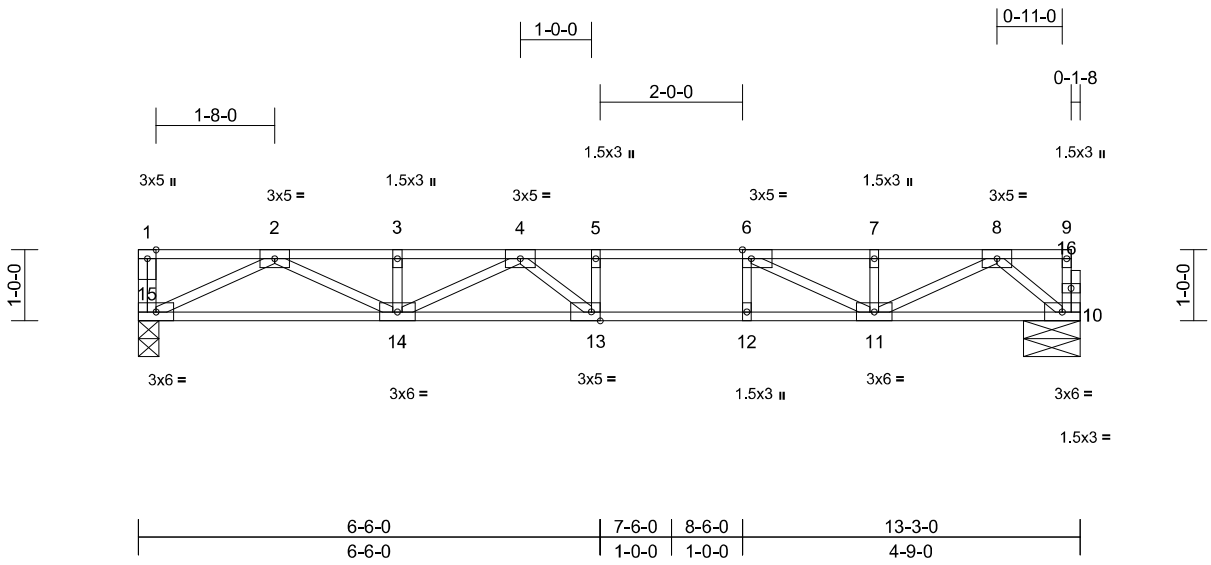
April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-Crawl-Franklin FA SP 3CG FL I72478633
25030169-02	F127	Floor	1	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:18 Page: 1
ID:IPexSy2Ox1Mty8IZz8y2uPzUI9?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:32.5

Plate Offsets (X, Y): [6:0-1-8,Edge], [13:0-1-8,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	0.56	Vert(LL)	-0.17	13-14	>945	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.22	13-14	>699	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.03	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.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) 10=0-9-8, 15=0-3-8
Max Grav 10=567 (LC 1), 15=572 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-15=-59/0, 9-10=-24/3, 1-2=0/0, 2-3=-1702/0, 3-4=-1702/0, 4-5=-2044/0, 5-6=-2044/0, 6-7=-1421/0, 7-8=-1421/0, 8-9=-2/0
BOT CHORD 14-15=0/1026, 13-14=0/2033, 12-13=0/2044, 11-12=0/2044, 10-11=0/637
WEBS 5-13=-141/29, 6-12=-6/109, 2-15=-1142/0, 2-14=0/757, 3-14=-130/0, 4-14=-372/0, 4-13=-143/272, 6-11=-784/0, 7-11=-147/53, 8-11=0/878, 8-10=-830/0

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-Crawl-Franklin FA SP 3CG FL
25030169-02	F126	Floor	1	1	I72478634 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:18 Page: 1
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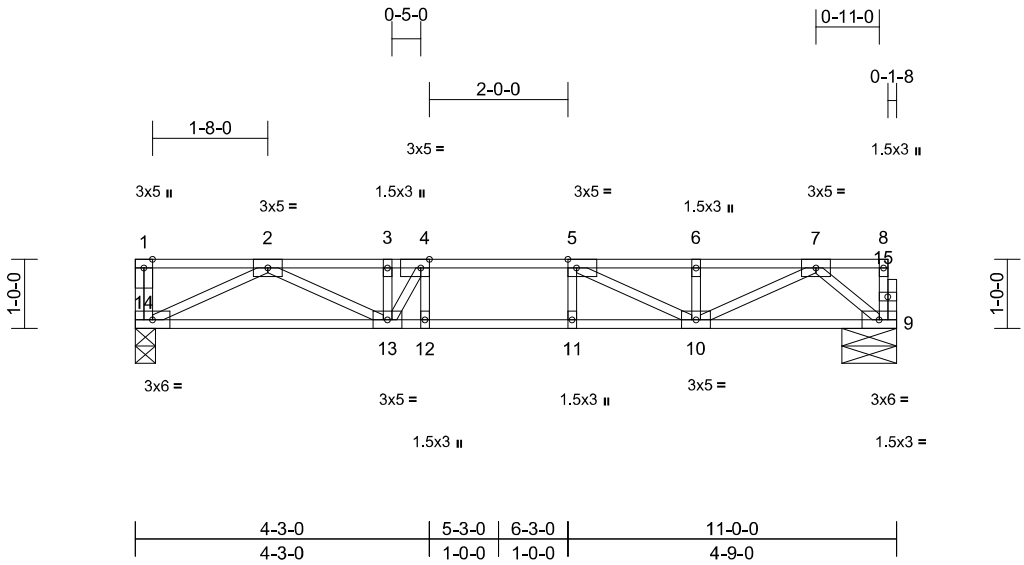

Scale = 1:33.3

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,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	0.35	Vert(LL)	-0.07	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.09	10-11	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 55 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) 9=0-9-8, 14=0-3-8
Max Grav 9=468 (LC 1), 14=473 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-58/0, 8-9=-26/0, 1-2=0/0, 2-3=-1286/0, 3-4=-1286/0, 4-5=-1417/0, 5-6=-1135/0, 6-7=-1135/0, 7-8=-2/0
BOT CHORD 13-14=0/824, 12-13=0/1417, 11-12=0/1417, 10-11=0/1417, 9-10=0/518
WEBS 4-12=-75/113, 5-11=-44/48, 2-14=-917/0, 2-13=0/518, 3-13=-98/126, 4-13=-440/5, 5-10=-433/0, 6-10=-166/4, 7-10=0/691, 7-9=-675/0

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-Crawl-Franklin FA SP 3CG FL I72478635
25030169-02	F108	Floor	2	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:16 Page: 1
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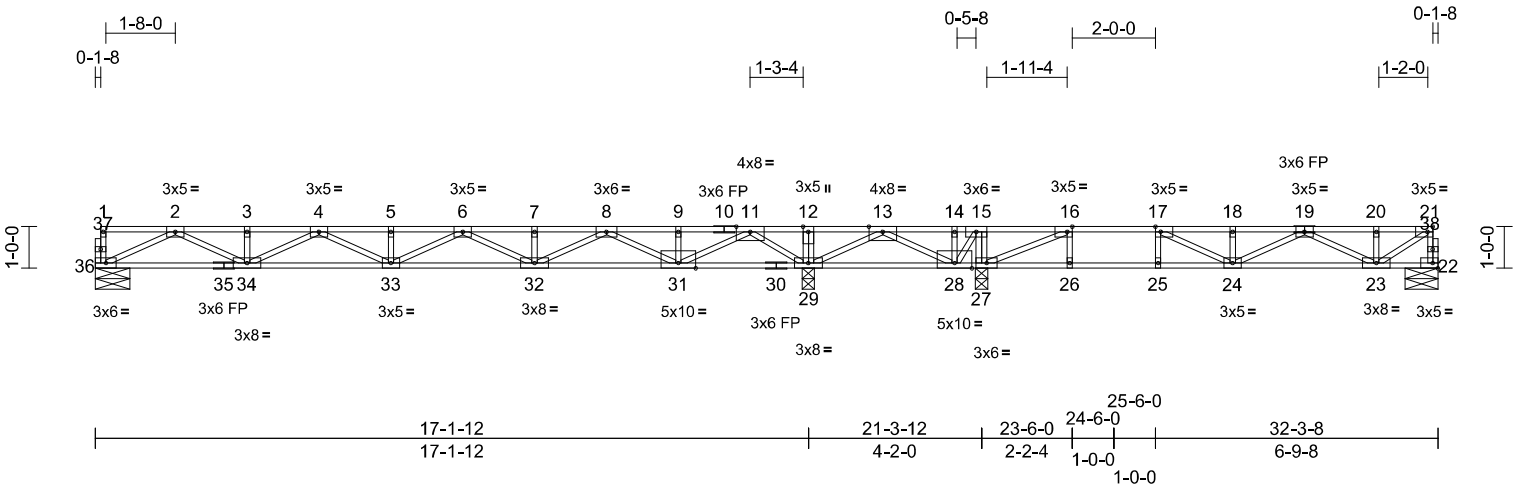

Scale = 1:55.5

Plate Offsets (X, Y): [16:0-1-8,Edge], [17:0-1-8,Edge], [21:0-1-8,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	0.77	Vert(LL)	-0.24	32-33	>869	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.92	Vert(CT)	-0.33	32-33	>627	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.05	22	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 161 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 10-19:2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 30-22:2x4 SP No.1(flat)
WEBS 2x4 SP No.2(flat)
OTHERS 2x4 SP No.2(flat) *Except* 22-38:2x4 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=0-9-8, 27=0-3-8, 29=0-3-8, 36=0-10-0
Max Uplift 27=-353 (LC 3)
Max Grav 22=606 (LC 5), 27=574 (LC 4), 29=2154 (LC 12), 36=752 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-36=-72/0, 21-22=-599/0, 1-2=-5/0, 2-3=-2294/0, 3-4=-2294/0, 4-5=-3001/0, 5-6=-3001/0, 6-7=-2220/0, 7-8=-2220/0, 8-9=0/84, 9-11=0/84, 11-12=0/3419, 12-13=0/3422, 13-14=-141/516, 14-15=-141/516, 15-16=-230/154, 16-17=-1627/0, 17-18=-1995/0, 18-20=-1995/0, 20-21=-855/0
BOT CHORD 34-36=0/1365, 33-34=0/2821, 32-33=0/2782, 31-32=0/1250, 29-31=-1798/0, 28-29=-1826/0, 27-28=-154/230, 26-27=0/1627, 25-26=0/1627, 24-25=0/1627, 23-24=0/1571, 22-23=0/43
WEBS 12-29=-189/0, 15-27=-79/619, 16-26=0/220, 17-25=-190/0, 2-36=-1514/0, 2-34=0/1041, 3-34=-166/0, 4-34=-590/0, 4-33=0/202, 5-33=-170/0, 6-33=0/249, 6-32=-634/0, 7-32=-171/0, 8-32=0/1090, 8-31=-1472/0, 9-31=-176/0, 11-31=0/1921, 11-29=-1927/0, 13-29=-2065/0, 13-28=0/1676, 14-28=-210/0, 15-28=-791/71, 16-27=-1620/0, 17-24=0/440, 18-24=-281/0, 19-24=0/475, 19-23=-802/0, 20-23=-174/0, 21-23=0/981

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 36 SP No.2 , Joint 29 SP No.1 , Joint 27 SP No.1 , Joint 22 SP No.1 .
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 353 lb uplift at joint 27.
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-Crawl-Franklin FA SP 3CG FL
25030169-02	F121	Floor	2	1	I72478636 Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:17 Page: 1
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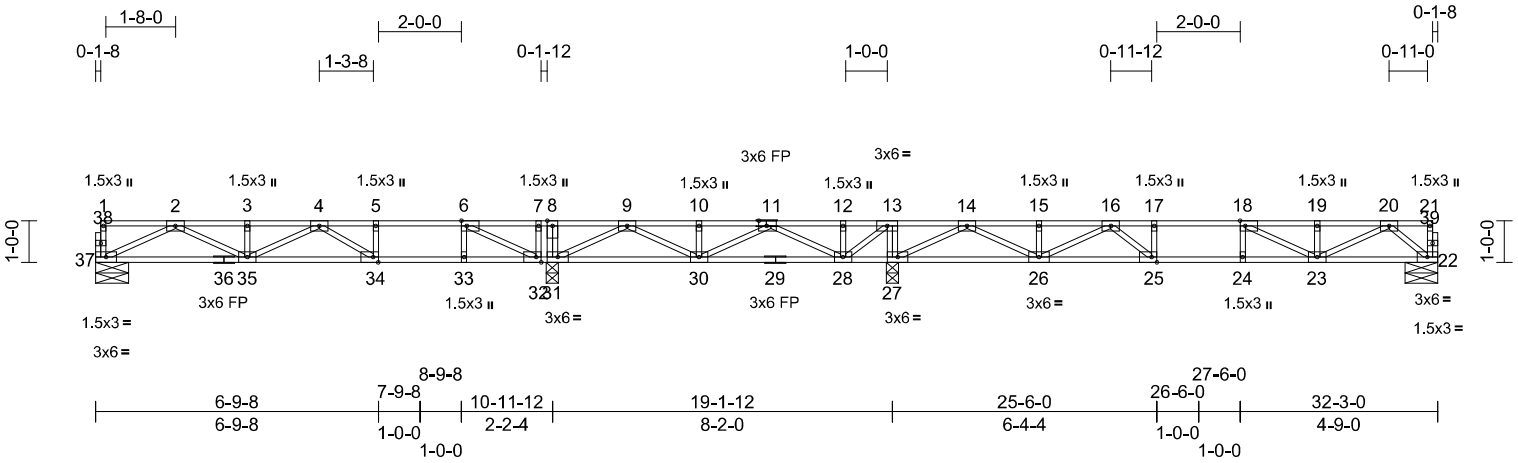


Scale = 1:55.4

Plate Offsets (X, Y): [6:0-1-8,Edge], [11:0-2-4,Edge], [18:0-1-8,Edge], [25:0-1-8,Edge], [32:0-1-8,Edge], [34:0-1-8,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	0.92	Vert(LL)	-0.19	34-35	>668	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.27	34-35	>487	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.03	22	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 158 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 2-2-0 oc bracing.

REACTIONS (size) 22=0-9-8, 27=0-3-8, 31=0-3-8, 37=0-9-8
Max Grav 22=480 (LC 5), 27=1197 (LC 12), 31=791 (LC 3), 37=486 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-37=-56/0, 21-22=-26/0, 1-2=-4/0, 2-3=-1385/0, 3-4=-1385/0, 4-5=-1323/0, 5-6=-1323/0, 6-7=-224/111, 7-8=-224/111, 8-9=-224/111, 9-10=-556/216, 10-12=-556/934, 12-13=0/934, 13-14=0/1397, 14-15=-771/0, 15-16=-771/0, 16-17=-1492/0, 17-18=-1492/0, 18-19=-1172/0, 19-20=-1172/0, 20-21=-2/0
BOT CHORD 35-37=0/868, 34-35=0/1551, 33-34=0/1323, 32-33=0/1323, 31-32=-111/224, 30-31=0/403, 28-30=-545/390, 27-28=-1397/0, 26-27=-309/0, 25-26=0/1284, 24-25=0/1492, 23-24=0/1492, 22-23=0/533
WEBS 5-34=0/82, 6-33=0/189, 8-31=-350/0, 13-27=-593/0, 17-25=-210/0, 18-24=-45/37, 2-37=-961/0, 2-35=0/580, 3-35=-115/0, 4-35=-186/0, 4-34=-336/0, 6-32=-1289/0, 7-32=0/284, 9-31=-519/241, 9-30=-250/190, 10-30=-140/0, 11-30=0/444, 11-28=-765/0, 12-28=-119/0, 13-28=0/768, 14-27=-1303/0, 14-26=0/970, 15-26=-148/0, 16-26=-604/0, 16-25=0/429, 18-23=-406/0, 19-23=-173/4, 20-23=0/716, 20-22=-694/0

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

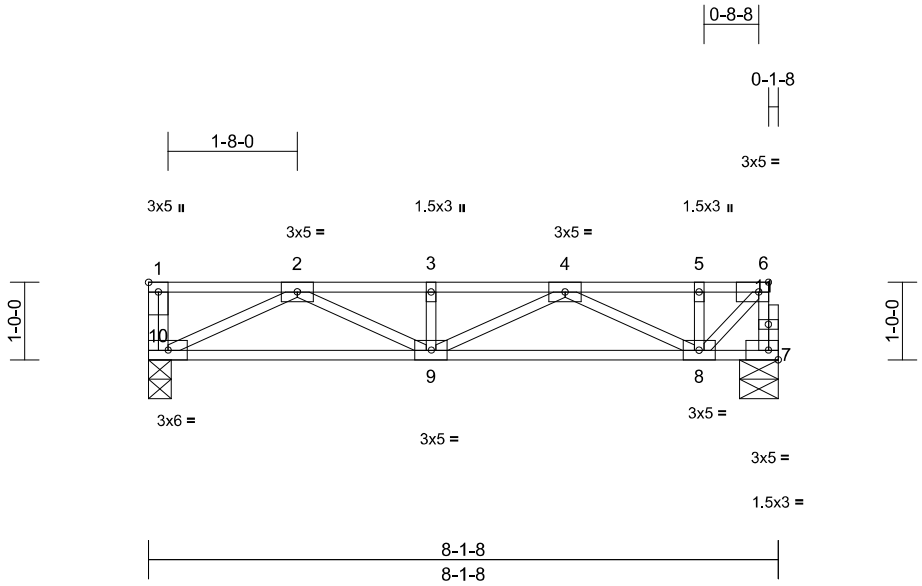
April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-Crawl-Franklin FA SP 3CG FL
25030169-02	F128	Floor	2	1	I72478637 Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:18 Page: 1
ID:IPexSy2Ox1Mty8IZz8y2uPzUI9?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:29.8

Plate Offsets (X, Y): [1:Edge,0-1-8], [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	0.13	Vert(LL)	-0.02	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.23	Vert(CT)	-0.03	9-10	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 43 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) 7=0-6-0, 10=0-3-8
Max Grav 7=341 (LC 1), 10=346 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-10=-58/0, 6-7=-343/0, 1-2=0/0, 2-3=-795/0, 3-4=-795/0, 4-5=-336/0, 5-6=-336/0
BOT CHORD 9-10=0/565, 8-9=0/707, 7-8=0/24
WEBS 2-10=-629/0, 2-9=0/258, 3-9=-130/0, 4-9=0/99, 4-8=-416/0, 5-8=-117/0, 6-8=0/451

NOTES
1) All bearings are assumed to be SP No.2 .
2) 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.
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.
4) 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-Crawl-Franklin FA SP 3CG FL
25030169-02	F120	Floor	2	1	I72478638 Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:17 Page: 1
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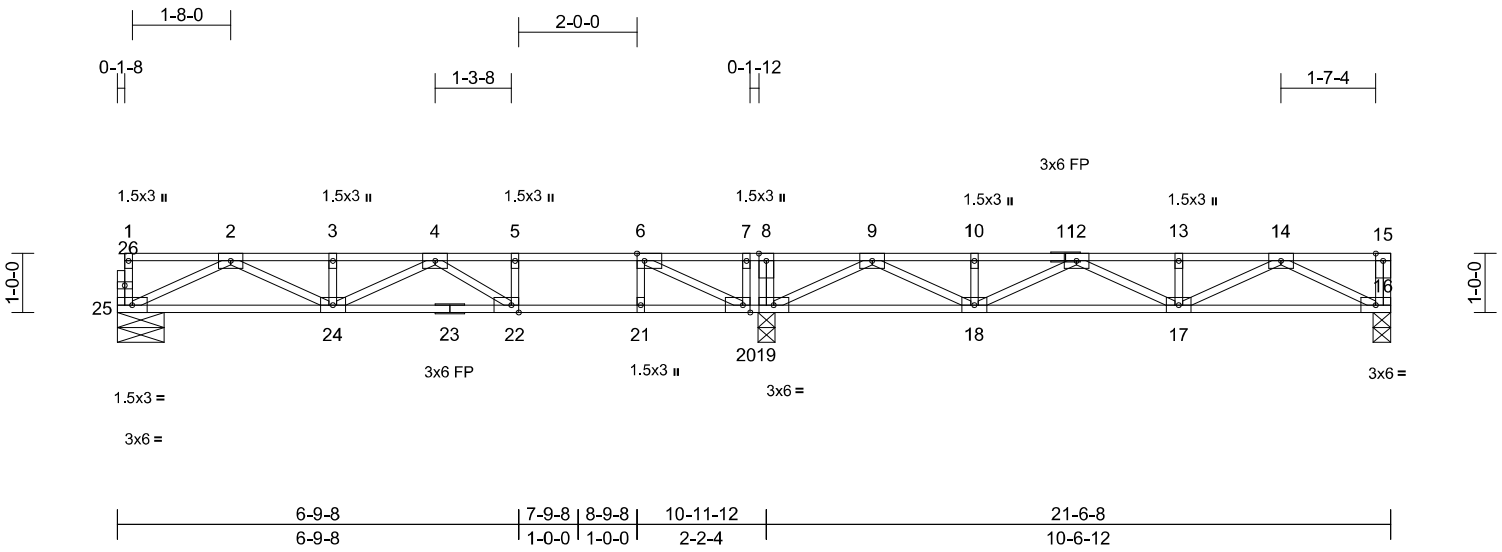


Scale = 1:39

Plate Offsets (X, Y): [6:0-1-8,Edge], [20:0-1-8,Edge], [22:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.77	Vert(LL)	-0.19	22-24	>693	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.26	22-24	>505	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.03	16	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 106 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.1(flat) *Except* 11-15:2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 23-16:2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS (size) 16=0-3-8, 19=0-3-8, 25=0-9-8
Max Grav 16=435 (LC 8), 19=1000 (LC 1), 25=468 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-25=-56/0, 15-16=-56/0, 1-2=-4/0, 2-3=-1316/0, 3-4=-1316/0, 4-5=-1171/0, 5-6=-1171/0, 6-7=-12/407, 7-8=-12/407, 8-9=-12/407, 9-10=-1057/0, 10-12=-1057/0, 12-13=-1141/0, 13-14=-1141/0, 14-15=0/0
BOT CHORD 24-25=0/832, 22-24=0/1446, 21-22=0/1171, 20-21=0/1171, 19-20=-407/12, 18-19=0/559, 17-18=0/1238, 16-17=0/725
WEBS 5-22=0/116, 6-21=0/208, 8-19=-365/0, 2-25=-922/0, 2-24=0/543, 3-24=-113/0, 4-24=-145/52, 4-22=-435/0, 6-20=-1387/0, 7-20=0/315, 9-19=-926/0, 9-18=0/588, 10-18=-141/0, 12-18=-233/0, 12-17=-108/0, 13-17=-132/0, 14-17=0/466, 14-16=-813/0

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 25 SP No.2 , Joint 19 SP No.1 , Joint 16 SP No.1 .
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

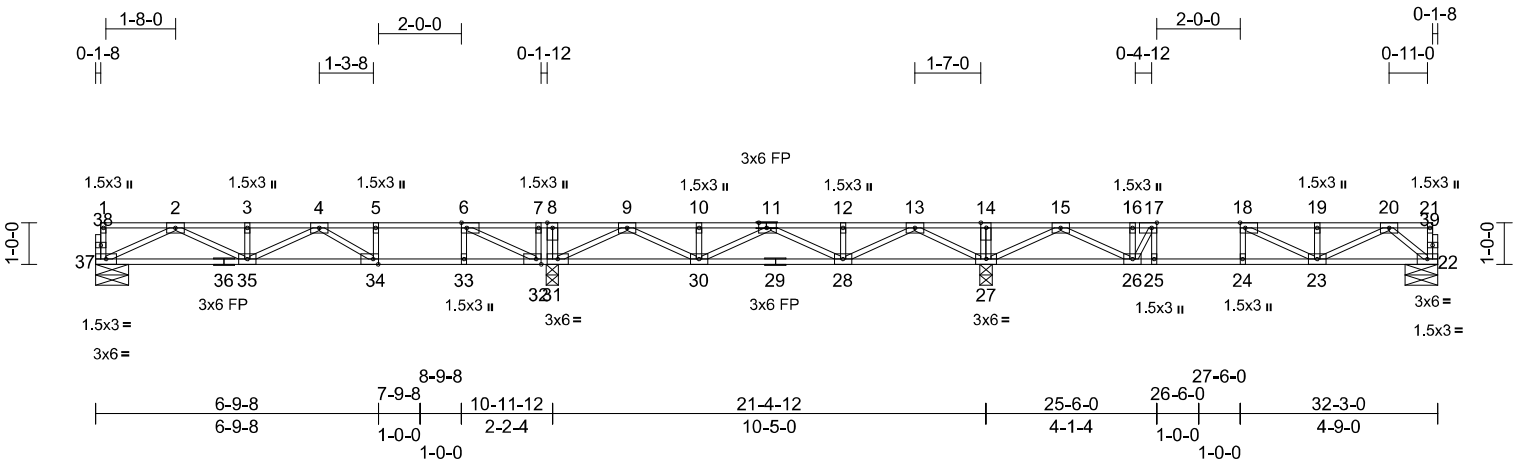
April 4,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 36 Magnolia Acres-Crawl-Franklin FA SP 3CG FL
25030169-02	F119	Floor	5	1	I72478639 Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:17 Page: 1
ID:o0XB1G07PQ59jr8Bsjwap_zUl91-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:55.4

Plate Offsets (X, Y): [6:0-1-8,Edge], [11:0-2-4,Edge], [17:0-1-8,Edge], [18:0-1-8,Edge], [32:0-1-8,Edge], [34:0-1-8,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	0.95	Vert(LL)	-0.19	34-35	>676	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.76	Vert(CT)	-0.26	34-35	>494	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.03	22	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 158 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 36-29:2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

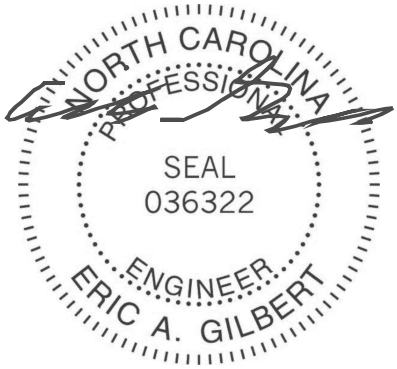
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 31-32,27-28,26-27.

REACTIONS (size) 22=0-9-8, 27=0-3-8, 31=0-3-8, 37=0-9-8
Max Grav 22=417 (LC 5), 27=1075 (LC 12), 31=935 (LC 3), 37=477 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-37=-56/0, 21-22=-28/0, 1-2=-4/0, 2-3=-1350/0, 3-4=-1350/0, 4-5=-1245/0, 5-6=-1245/0, 6-7=-114/318, 7-8=-114/318, 8-9=-114/318, 9-10=-856/0, 10-12=-856/50, 12-13=-752/50, 13-14=0/922, 14-15=0/922, 15-16=-863/33, 16-17=-863/33, 17-18=-1098/0, 18-19=-986/0, 19-20=-986/0, 20-21=-2/0
BOT CHORD 35-37=0/850, 34-35=0/1492, 33-34=0/1245, 32-33=0/1245, 31-32=-318/114, 30-31=0/526, 28-30=0/941, 27-28=-300/241, 26-27=-260/310, 25-26=0/1098, 24-25=0/1098, 23-24=0/1098, 22-23=0/457
WEBS 5-34=0/87, 6-33=0/216, 8-31=-344/0, 14-27=-154/0, 17-25=0/217, 18-24=-86/0, 2-37=-942/0, 2-35=0/561, 3-35=-114/0, 4-35=-159/38, 4-34=-388/0, 6-32=-1357/0, 7-32=0/290, 9-31=-802/0, 9-30=0/466, 10-30=-140/0, 11-30=-108/95, 11-28=-312/0, 12-28=-139/0, 13-28=0/673, 13-27=-950/0, 15-27=-1029/0, 15-26=0/678, 16-26=-4/194, 17-26=-666/0, 18-23=-136/92, 19-23=-189/0, 20-23=0/593, 20-22=-595/0

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 37 SP No.2 , Joint 31 SP No.1 , Joint 27 SP No.2 , Joint 22 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-Crawl-Franklin FA SP 3CG FL
25030169-02	F123	Floor	5	1	I72478640 Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:17 Page: 1
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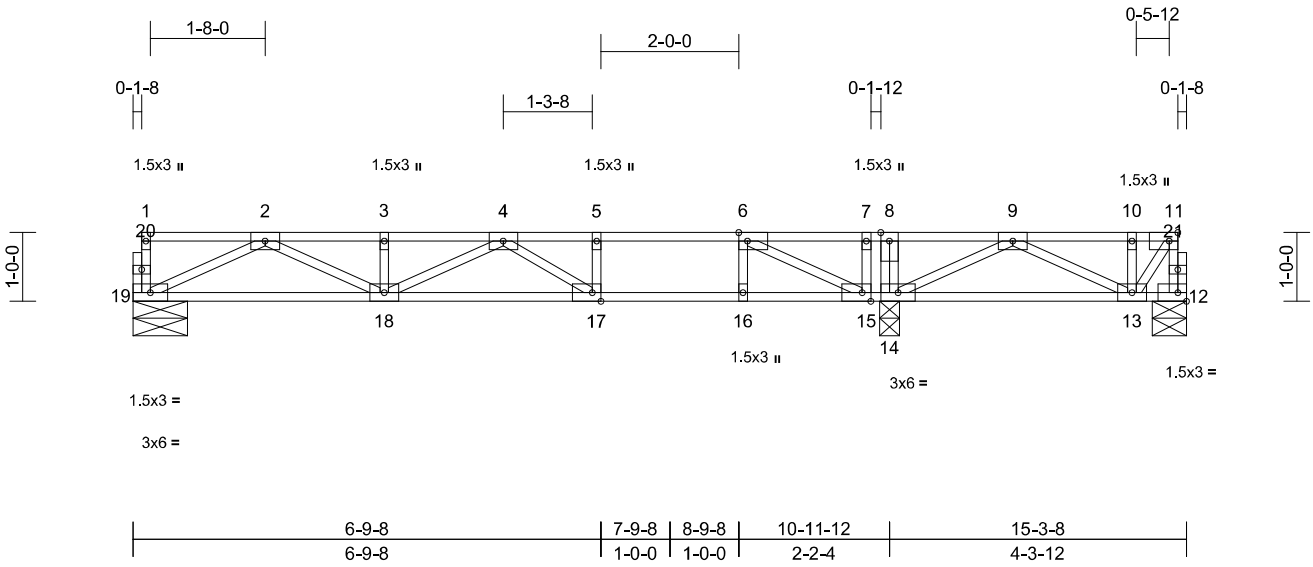

Scale = 1:33.5

Plate Offsets (X, Y): [6:0-1-8,Edge], [11:0-1-8,Edge], [15:0-1-8,Edge], [17:0-1-8,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)	-0.19	17-18	>677	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.97	Vert(CT)	-0.26	17-18	>493	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.02	12	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 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS (size) 12=0-6-0, 14=0-3-8, 19=0-9-8
Max Grav 12=222 (LC 8), 14=641 (LC 1), 19=480 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-19=-56/0, 11-12=-227/0, 1-2=-4/0, 2-3=-1362/0, 3-4=-1362/0, 4-5=-1271/0, 5-6=-1271/0, 6-7=-239/0, 7-8=-239/0, 8-9=-239/0, 9-10=-172/0, 10-11=-172/0
BOT CHORD 18-19=0/856, 17-18=0/1515, 16-17=0/1271, 15-16=0/1271, 14-15=0/239, 13-14=0/349, 12-13=0/16
WEBS 5-17=0/71, 6-16=0/181, 8-14=-337/0, 2-19=-948/0, 2-18=0/567, 3-18=-114/0, 4-18=-172/0, 4-17=-311/0, 6-15=-1244/0, 7-15=0/277, 9-14=-218/49, 9-13=-199/0, 10-13=-120/0, 11-13=0/274

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-Crawl-Franklin FA SP 3CG FL I72478641
25030169-02	F125	Floor	6	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Apr 02 14:36:18 Page: 1
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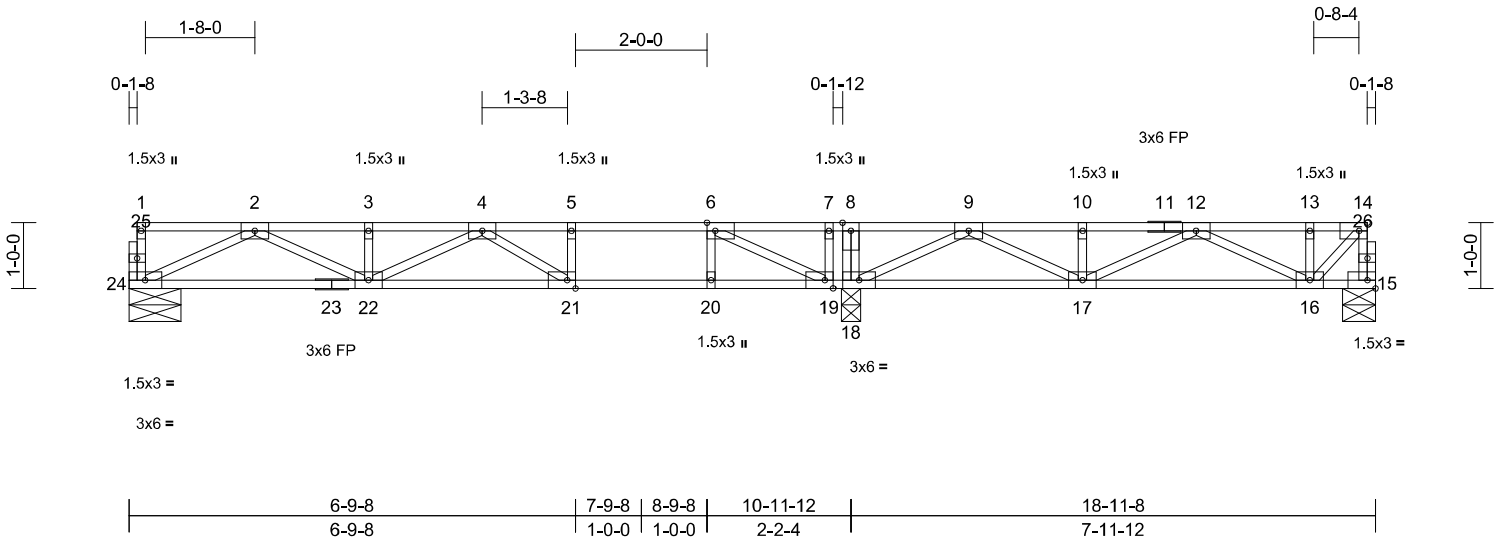


Scale = 1:35.1

Plate Offsets (X, Y): [6:0-1-8,Edge], [14:0-1-8,Edge], [19:0-1-8,Edge], [21:0-1-8,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	0.93	Vert(LL)	-0.20	21-22	>653	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.99	Vert(CT)	-0.27	21-22	>476	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.03	15	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 94 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 2-2-0 oc bracing.

REACTIONS (size) 15=0-6-0, 18=0-3-8, 24=0-9-8
Max Grav 15=341 (LC 8), 18=845 (LC 1), 24=475 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-24=-56/0, 14-15=-345/0, 1-2=-4/0, 2-3=-1344/0, 3-4=-1344/0, 4-5=-1231/0, 5-6=-1231/0, 6-7=-96/146, 7-8=-96/146, 8-9=-96/146, 9-10=-792/0, 10-12=-792/0, 12-13=-330/0, 13-14=-330/0
BOT CHORD 22-24=0/847, 21-22=0/1488, 20-21=0/1231, 19-20=0/1231, 18-19=-146/96, 17-18=0/564, 16-17=0/701, 15-16=0/25
WEBS 5-21=0/89, 6-20=0/192, 8-18=-351/0, 2-24=-938/0, 2-22=0/557, 3-22=-113/0, 4-22=-161/3, 4-21=-363/0, 6-19=-1300/0, 7-19=0/294, 9-18=-633/0, 9-17=0/301, 10-17=-140/0, 12-17=0/102, 12-16=-415/0, 13-16=-118/0, 14-16=0/449

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.

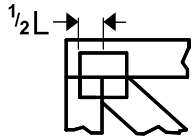
LOAD CASE(S) Standard

April 4,2025

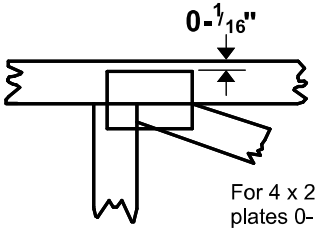
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

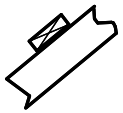
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

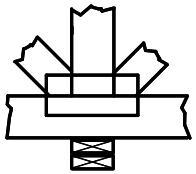
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

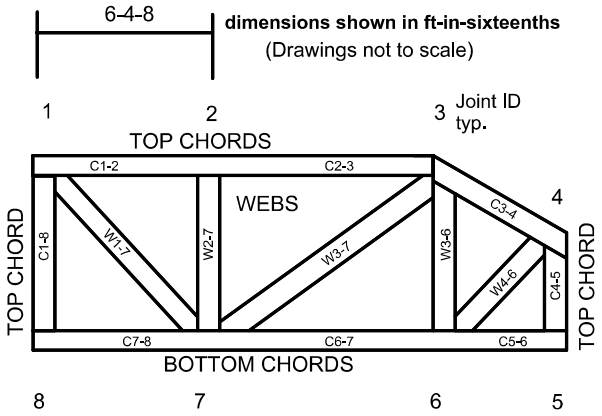


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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®

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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.