ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 25010143-A
Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP 3CG SL GLH

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: I71005136 thru I71005153

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

North Carolina COA: C-0844

January 28,2025

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 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005136
25010143-A	F200	Floor Supported Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:52 Page: 1

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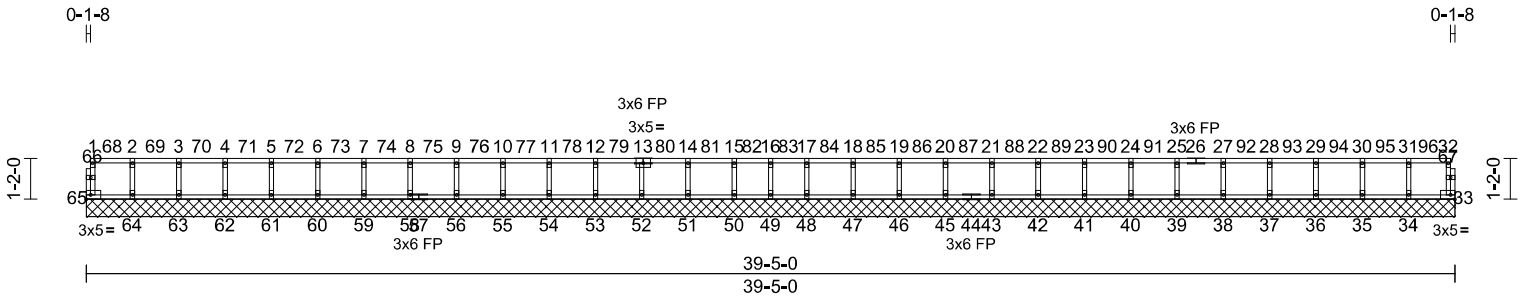

Scale = 1:66.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.08	Horiz(TL)	0.00	33	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							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 10-0-0 oc bracing.

REACTIONS (size) 33=39-5-0, 34=39-5-0, 35=39-5-0, 36=39-5-0, 37=39-5-0, 38=39-5-0, 39=39-5-0, 40=39-5-0, 41=39-5-0, 42=39-5-0, 43=39-5-0, 45=39-5-0, 46=39-5-0, 47=39-5-0, 48=39-5-0, 49=39-5-0, 50=39-5-0, 51=39-5-0, 52=39-5-0, 53=39-5-0, 54=39-5-0, 55=39-5-0, 56=39-5-0, 58=39-5-0, 59=39-5-0, 60=39-5-0, 61=39-5-0, 62=39-5-0, 63=39-5-0, 64=39-5-0, 65=39-5-0

Max Grav 33=351 (LC 34), 34=464 (LC 65), 35=474 (LC 64), 36=471 (LC 63), 37=472 (LC 62), 38=471 (LC 61), 39=471 (LC 60), 40=471 (LC 59), 41=471 (LC 58), 42=472 (LC 57), 43=471 (LC 56), 45=472 (LC 55), 46=470 (LC 54), 47=475 (LC 53), 48=454 (LC 52), 49=415 (LC 51), 50=455 (LC 50), 51=471 (LC 49), 52=470 (LC 48), 53=476 (LC 47), 54=470 (LC 46), 55=472 (LC 45), 56=471 (LC 44), 58=472 (LC 43), 59=471 (LC 42), 60=471 (LC 41), 61=471 (LC 40), 62=472 (LC 39), 63=471 (LC 38), 64=473 (LC 37), 65=344 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-65=-347/0, 32-33=-351/0, 1-2=-26/0, 2-3=-26/0, 3-4=-26/0, 4-5=-26/0, 5-6=-26/0, 6-7=-26/0, 7-8=-26/0, 8-9=-26/0, 9-10=-26/0, 10-11=-26/0, 11-12=-26/0, 12-14=-33/0, 14-15=-33/0, 15-16=-33/0, 16-17=-33/0, 17-18=-33/0, 18-19=-33/0, 19-20=-33/0, 20-21=-33/0, 21-22=-33/0, 22-23=-33/0, 23-24=-33/0, 24-25=-33/0, 25-27=-33/0, 27-28=-33/0, 28-29=-33/0, 29-30=-33/0, 30-31=-33/0, 31-32=-33/0

BOT CHORD 64-65=0/26, 63-64=0/26, 62-63=0/26, 61-62=0/26, 60-61=0/26, 59-60=0/26, 58-59=0/26, 56-58=0/26, 55-56=0/26, 54-55=0/26, 53-54=0/26, 52-53=0/26, 51-52=0/33, 50-51=0/33, 49-50=0/33, 48-49=0/33, 47-48=0/33, 46-47=0/33, 45-46=0/33, 43-45=0/33, 42-43=0/33, 41-42=0/33, 40-41=0/33, 39-40=0/33, 38-39=0/33, 37-38=0/33, 36-37=0/33, 35-36=0/33, 34-35=0/33, 33-34=0/33

WEBS 2-64=-457/0, 3-63=-459/0, 4-62=-458/0, 5-61=-458/0, 6-60=-458/0, 7-59=-458/0, 8-58=-458/0, 9-56=-458/0, 10-55=-458/0, 11-54=-457/0, 12-53=-463/0, 13-52=-457/0, 14-51=-457/0, 15-50=-443/0, 31-34=-452/0, 30-35=-460/0, 29-36=-458/0, 28-37=-458/0, 27-38=-458/0, 25-39=-458/0, 24-40=-458/0, 23-41=-458/0, 22-42=-458/0, 21-43=-458/0, 20-45=-458/0, 19-46=-457/0, 18-47=-462/0, 17-48=-442/0, 16-49=-406/0

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) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
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

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 33-65=-10, 1-32=-208

January 28,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005137
25010143-A	F201	Floor	3	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:53 Page: 1

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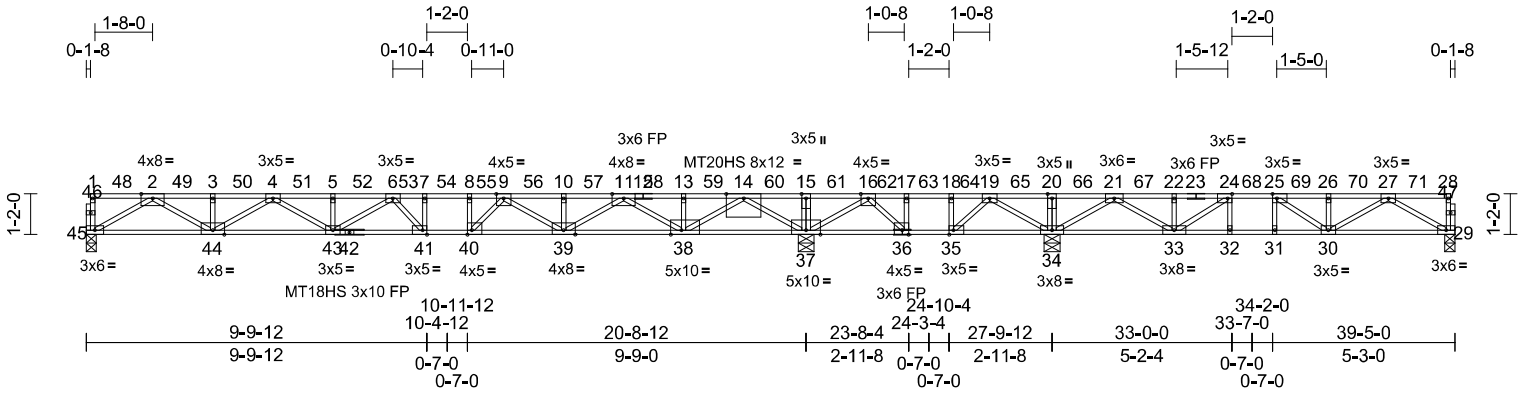

Scale = 1:66.4

Plate Offsets (X, Y): [24:0-1-8,Edge], [25:0-1-8,Edge], [35:0-1-8,Edge], [36:0-2-4,Edge], [38:0-3-12,Edge], [40:0-1-8,Edge], [41:0-1-8,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	0.94	Vert(LL)	-0.38	41-43	>659	480	MT18HS	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.94	Vert(CT)	-0.64	41-43	>384	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.07	37	n/a	n/a	MT20HS	187/143
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 202 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) *Except* 12-23:2x4 SP 2400F 2.0E(flat)

BOT CHORD 2x4 SP No.1(flat) *Except* 36-29:2x4 SP No.2(flat), 42-36:2x4 SP 2400F 2.0E(flat)

WEBS 2x4 SP No.3(flat) *Except* 38-14:2x4 SP No.2(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) 29=0-3-8, 34=0-5-8, 37=0-5-8, 45=0-3-8

Max Grav 29=656 (LC 4), 34=1312 (LC 4), 37=2594 (LC 3), 45=1192 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-45=-324/0, 28-29=-325/0, 1-2=-19/0, 2-3=-3254/0, 3-4=-3254/0, 4-5=-4833/0, 5-6=-4833/0, 6-7=-4808/0, 7-8=-4808/0, 8-9=-4808/0, 9-10=-3410/0, 10-11=-3410/0, 11-13=-568/141, 13-14=-568/141, 14-15=0/4418, 15-16=0/4418, 16-17=0/2740, 17-18=0/2671, 18-19=0/2671, 19-20=0/1761, 20-21=0/1761, 21-22=-888/111, 22-24=-888/111, 24-25=-1464/0, 25-26=-1465/0, 26-27=-1465/0, 27-28=-19/0

BOT CHORD 44-45=0/1871, 43-44=0/4235, 41-43=0/4989, 40-41=0/4808, 39-40=0/4348, 38-39=0/2084, 37-38=-1861/0, 35-37=-3416/0, 34-35=-2081/0, 33-34=-582/86, 32-33=0/1464, 31-32=0/1464, 30-31=0/1464, 29-30=0/953

WEBS 7-41=-108/265, 8-40=-455/0, 15-37=-411/0, 17-36=-744/0, 18-35=-41/446, 20-34=-368/0, 24-32=-10/176, 25-31=-157/28, 2-45=-2157/0, 2-44=0/1615, 3-44=-362/0, 4-44=-1145/0, 4-43=0/698, 5-43=-351/0, 6-43=-360/212, 6-41=-532/168, 14-37=-2965/0, 14-38=0/2511, 13-38=-371/0, 11-38=-1982/0, 11-39=0/1562, 10-39=-369/0, 9-39=-1108/0, 9-40=0/901, 16-37=-1576/0, 16-36=0/1246, 19-34=-482/527, 19-35=-839/10, 21-34=-1618/0, 21-33=0/1111, 22-33=-364/0, 24-33=-851/0, 27-29=-1097/0, 27-30=0/643, 26-30=-414/0, 25-30=-198/300

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) The Fabrication Tolerance at joint 42 = 11%
5) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
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

January 28,2025

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005138
25010143-A	F202	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:54 Page: 1

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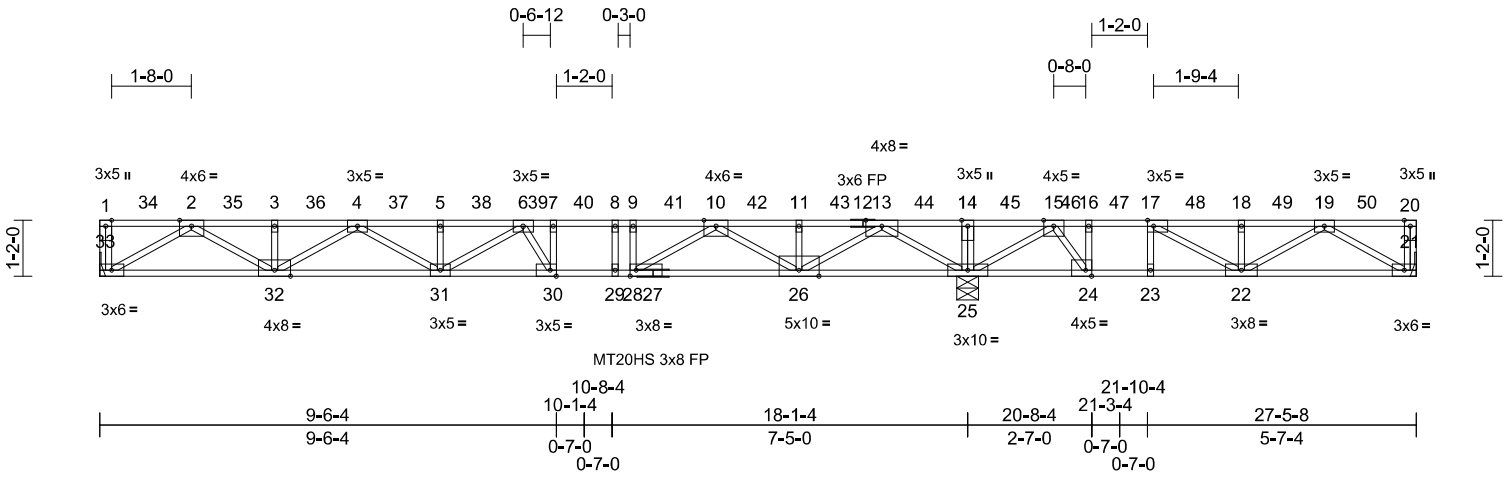

Scale = 1:48.1

Plate Offsets (X, Y): [17:0-1-8,Edge], [24:0-1-8,Edge], [28:0-1-8,Edge], [30:0-1-8,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	0.96	Vert(LL)	-0.25	30-31	>847	480	MT20HS	187/143
TCDL	24.0	Lumber DOL	1.00	BC	0.70	Vert(CT)	-0.44	30-31	>493	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.05	25	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 142 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E(flat) *Except* 12-20:2x4 SP No.1(flat)

BOT CHORD 2x4 SP 2400F 2.0E(flat) *Except* 27-21:2x4 SP No.1(flat)

WEBS 2x4 SP No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-4-12 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 21= Mechanical, 25=0-5-8, 33= Mechanical

Max Grav 21=512 (LC 4), 25=2295 (LC 1), 33=1104 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-33=-325/0, 20-21=-327/0, 1-2=0/0, 2-3=-2927/0, 3-4=-2927/0, 4-5=-4197/0, 5-6=-4197/0, 6-7=-3857/0, 7-8=-3857/0, 8-9=-3857/0, 9-10=-3857/0, 10-11=-1500/0, 11-13=-1500/0, 13-14=0/2407, 14-15=0/2407, 15-16=-548/1006, 16-17=-548/1006, 17-18=-990/276, 18-19=-990/276, 19-20=0/0

BOT CHORD 32-33=0/1705, 31-32=0/3752, 30-31=0/4164, 29-30=0/3857, 28-29=0/3857, 26-28=0/2757, 25-26=-338/113, 24-25=-1503/42, 23-24=-1006/548, 22-23=-1006/548, 21-22=-83/695

WEBS 7-30=0/534, 8-29=-144/53, 14-25=-406/0, 16-24=-766/0, 17-23=-279/0, 2-33=-1973/0, 2-32=0/1426, 3-32=-361/0, 4-32=-963/0, 4-31=0/554, 5-31=-349/0, 6-31=-193/325, 6-30=-818/0, 13-25=-2437/0, 13-26=0/1998, 11-26=-380/0, 10-26=-1483/0, 10-28=0/1374, 9-28=-492/0, 15-25=-1558/0, 15-24=0/1267, 19-21=-803/96, 19-22=-226/436, 18-22=-458/0, 17-22=0/987

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) Refer to girder(s) for truss to truss connections.
5) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
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

January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005139
25010143-A	F202A	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:54 Page: 1

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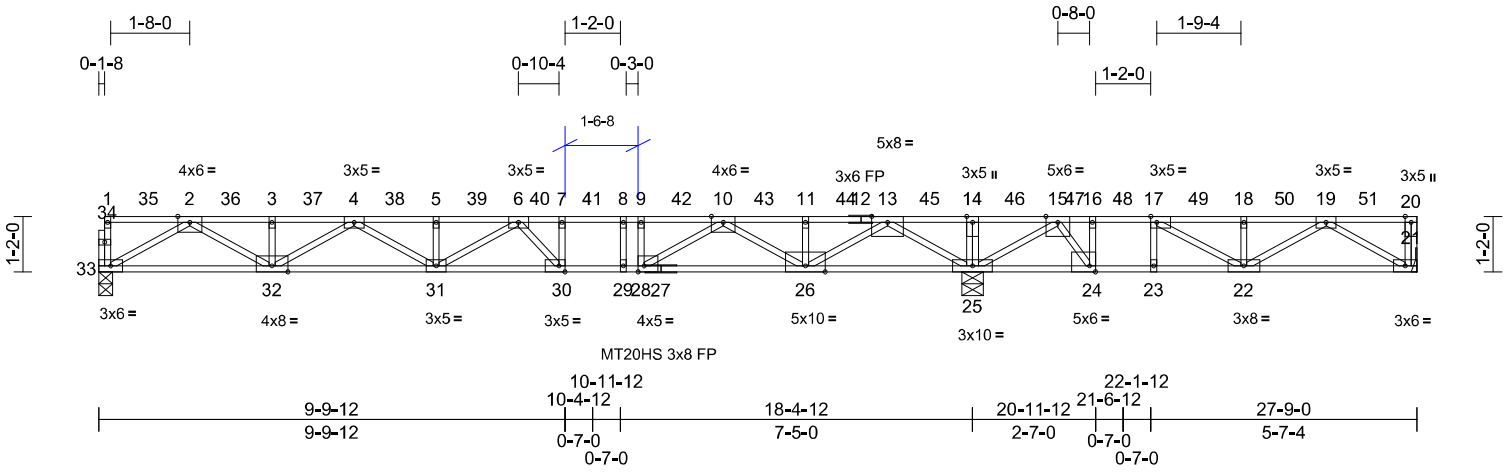

Scale = 1:48.6

Plate Offsets (X, Y): [17:0-1-8,Edge], [24:0-1-8,Edge], [28:0-1-8,Edge], [30:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.68	Vert(LL)	-0.28	30-31	>797	480	MT20HS	187/143
TCDL	24.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.47	30-31	>463	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.05	25	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 143 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat) *Except* 27-21:2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 21= Mechanical, 25=0-5-8, 33=0-3-8
Max Uplift 21=-25 (LC 3)
Max Grav 21=501 (LC 4), 25=2351 (LC 1), 33=1105 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-33=-325/0, 20-21=-328/0, 1-2=-19/0, 2-3=-2958/0, 3-4=-2958/0, 4-5=-4261/0, 5-6=-4261/0, 6-7=-3867/0, 7-8=-3867/0, 8-9=-3867/0, 9-10=-3867/0, 10-11=-1375/0, 11-13=-1375/0, 13-14=0/2620, 14-15=0/2620, 15-16=-486/1147, 16-17=-486/1147, 17-18=-954/357, 18-19=-954/357, 19-20=0/0
BOT CHORD 32-33=0/1718, 31-32=0/3801, 30-31=0/4253, 29-30=0/3867, 28-29=0/3867, 26-28=0/2683, 25-26=-474/26, 24-25=-1687/0, 23-24=-1147/486, 22-23=-1147/486, 21-22=-127/673
WEBS 7-30=0/410, 8-29=-140/55, 14-25=-409/0, 16-24=-858/0, 17-23=-255/0, 2-33=-1981/0, 2-32=0/1447, 3-32=-362/0, 4-32=-984/0, 4-31=0/564, 5-31=-342/0, 6-31=-223/302, 6-30=-785/0, 13-25=-2491/0, 13-26=0/2056, 11-26=-382/0, 10-26=-1541/0, 10-28=0/1461, 9-28=-537/0, 15-25=-1589/0, 15-24=0/1353, 19-21=-779/147, 19-22=-269/417, 18-22=-468/0, 17-22=0/1058

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 21.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

January 28,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005140
25010143-A	F203	Floor Supported Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:54 Page: 1
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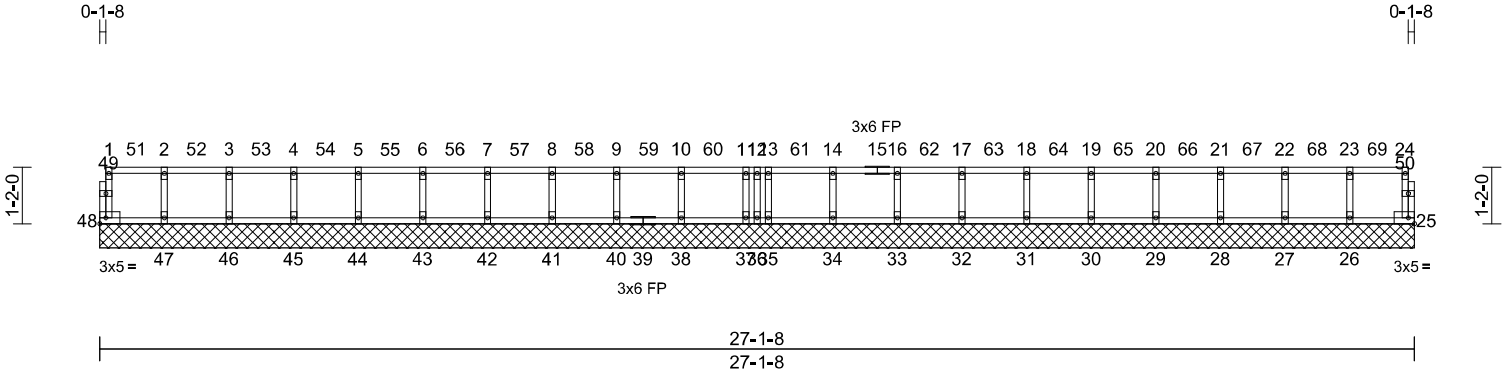


Scale = 1:47.6

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	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.08	Horiz(TL)	0.00	25	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 114 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) 25=27-1-8, 26=27-1-8, 27=27-1-8, 28=27-1-8, 29=27-1-8, 30=27-1-8, 31=27-1-8, 32=27-1-8, 33=27-1-8, 34=27-1-8, 35=27-1-8, 36=27-1-8, 37=27-1-8, 38=27-1-8, 40=27-1-8, 41=27-1-8, 42=27-1-8, 43=27-1-8, 44=27-1-8, 45=27-1-8, 46=27-1-8, 47=27-1-8, 48=27-1-8
Max Uplift 36=-149 (LC 16)
Max Grav 25=349 (LC 26), 26=467 (LC 49), 27=473 (LC 48), 28=471 (LC 47), 29=472 (LC 46), 30=471 (LC 45), 31=471 (LC 44), 32=472 (LC 43), 33=470 (LC 42), 34=478 (LC 41), 35=451 (LC 16), 36=133 (LC 15), 37=451 (LC 13), 38=478 (LC 37), 40=470 (LC 36), 41=472 (LC 35), 42=471 (LC 34), 43=471 (LC 33), 44=472 (LC 32), 45=471 (LC 31), 46=473 (LC 30), 47=467 (LC 29), 48=349 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-48=-350/0, 24-25=-350/0, 1-2=-31/0, 2-3=-31/0, 3-4=-31/0, 4-5=-31/0, 5-6=-31/0, 6-7=-31/0, 7-8=-31/0, 8-9=-31/0, 9-10=-31/0, 10-11=-31/0, 11-12=-31/0, 12-13=-31/0, 13-14=-31/0, 14-16=-31/0, 16-17=-31/0, 17-18=-31/0, 18-19=-31/0, 19-20=-31/0, 20-21=-31/0, 21-22=-31/0, 22-23=-31/0, 23-24=-31/0
BOT CHORD 47-48=0/31, 46-47=0/31, 45-46=0/31, 44-45=0/31, 43-44=0/31, 42-43=0/31, 41-42=0/31, 40-41=0/31, 38-40=0/31, 37-38=0/31, 36-37=0/31, 35-36=0/31, 34-35=0/31, 33-34=0/31, 32-33=0/31, 31-32=0/31, 30-31=0/31, 29-30=0/31, 28-29=0/31, 27-28=0/31, 26-27=0/31, 25-26=0/31
WEBS 2-47=-454/0, 3-46=-459/0, 4-45=-458/0, 5-44=-458/0, 6-43=-458/0, 7-42=-458/0, 8-41=-459/0, 9-40=-456/0, 10-38=-464/0, 11-37=-435/0, 23-26=-454/0, 22-27=-459/0, 21-28=-458/0, 20-29=-458/0, 19-30=-458/0, 18-31=-458/0, 17-32=-459/0, 16-33=-456/0, 14-34=-464/0, 13-35=-435/0, 12-36=-147/135

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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 36. This connection is for uplift only and does not consider lateral forces.
6) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
7) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 25-48=-10, 1-24=-208

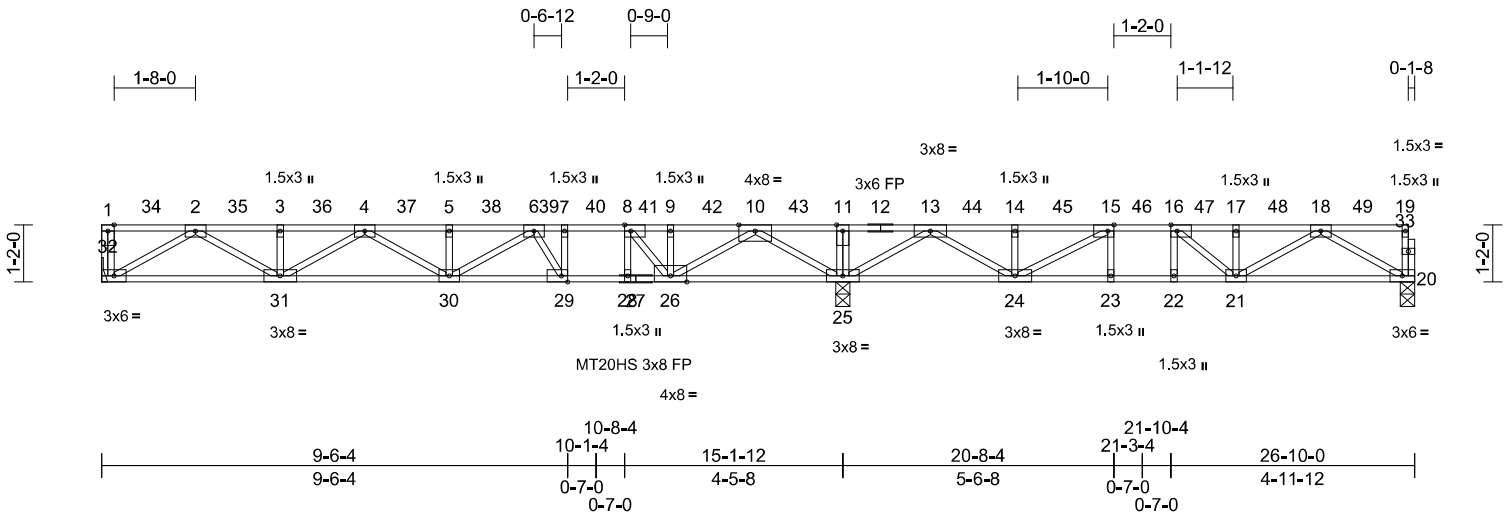
January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005141
25010143-A	F204	Floor	6	1	Job Reference (optional)

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:55 Page: 1
ID:hI7BmnSdAO5OVp8QeHC5RLzkY1U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:47.2

Plate Offsets (X, Y): [8:0-1-8,Edge], [15:0-1-8,Edge], [16:0-1-8,Edge], [29:0-1-8,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	0.90	Vert(LL)	-0.17	29-30	>999	480	MT20HS	187/143
TCDL	24.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.29	29-30	>615	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.04	20	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 139 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.1(flat) *Except* 12-19:2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 20=0-3-8, 25=0-3-8, 32= Mechanical
Max Grav 20=653 (LC 4), 25=2216 (LC 1), 32=906 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-32=-325/0, 19-20=-324/0, 1-2=0/0, 2-3=-2262/0, 3-4=-2262/0, 4-5=-2879/0, 5-6=-2879/0, 6-7=-2071/0, 7-8=-2071/0, 8-9=-1211/47, 9-10=-1211/47, 10-11=0/2313, 11-13=0/2313, 13-14=-844/518, 14-15=-844/518, 15-16=-1474/0, 16-17=-1444/0, 17-18=-1444/0, 18-19=-19/0

BOT CHORD 31-32=0/1367, 30-31=0/2761, 29-30=0/2516, 28-29=0/2071, 26-28=0/2071, 25-26=-684/35, 24-25=-1096/0, 23-24=0/1474, 22-23=0/1474, 21-22=0/1474, 20-21=0/949

WEBS 7-29=0/609, 8-28=0/431, 11-25=-384/0, 15-23=-31/185, 16-22=-199/57, 2-32=-1581/0, 2-31=0/1045, 3-31=-362/0, 4-31=-583/0, 4-30=-208/315, 5-30=-350/0, 6-30=0/564, 6-29=-1011/0, 10-25=-2084/0, 10-26=0/1550, 9-26=-252/235, 8-26=-1474/0, 13-25=-1705/0, 13-24=0/1245, 14-24=-378/0, 15-24=-1000/0, 18-20=-1092/0, 18-21=0/594, 17-21=-413/0, 16-21=-191/358

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x5 MT20 unless otherwise indicated.
4) Refer to girder(s) for truss to truss connections.
5) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
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.

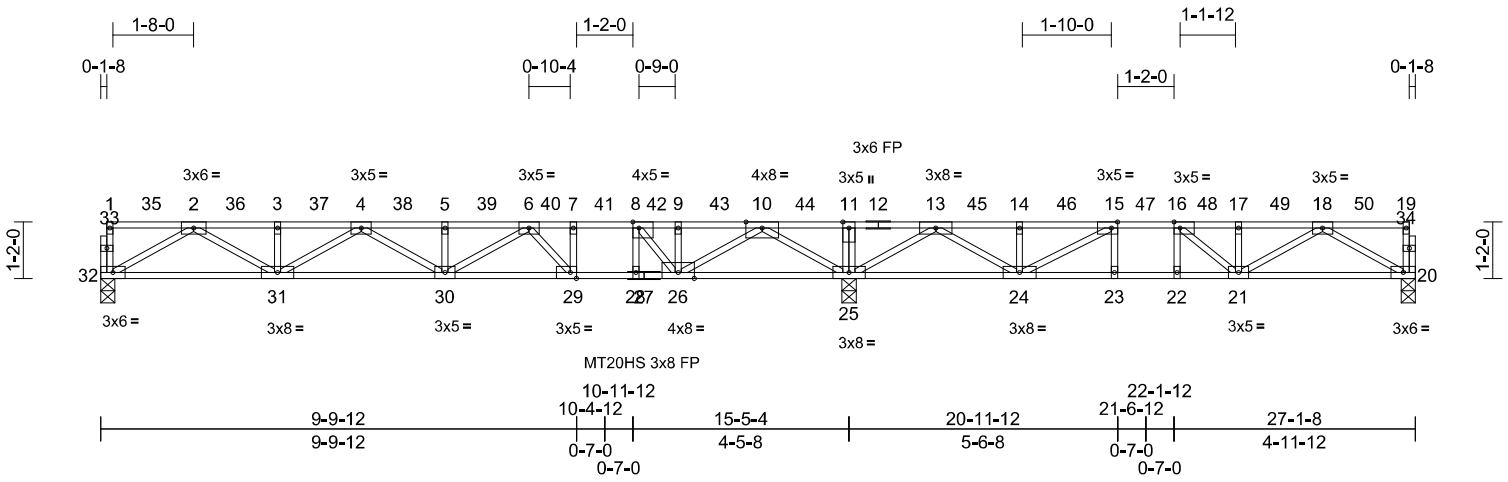
LOAD CASE(S) Standard

January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005142
25010143-A	F204A	Floor	2	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:55 Page: 1
ID:hI7BmnSdAO5OVp8QeHC5RLzkY1U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:47.6

Plate Offsets (X, Y): [8:0-1-8,Edge], [15:0-1-8,Edge], [16:0-1-8,Edge], [29:0-1-8,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	0.81	Vert(LL)	-0.18	29-30	>999	480	MT20HS	187/143
TCDL	24.0	Lumber DOL	1.00	BC	0.88	Vert(CT)	-0.30	29-30	>611	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.03	20	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 140 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.1(flat) *Except* 12-19:2x4 SP No.2(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat) *Except* 27-20:2x4 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: 25-26,24-25.

REACTIONS (size) 20=0-3-8, 25=0-3-8, 32=0-3-8
Max Grav 20=653 (LC 4), 25=2232 (LC 1), 32=921 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-32=-324/0, 19-20=-324/0, 1-2=-19/0, 2-3=-2337/0, 3-4=-2337/0, 4-5=-3037/0, 5-6=-3037/0, 6-7=-2176/0, 7-8=-2176/0, 8-9=-1277/28, 9-10=-1277/28, 10-11=0/2306, 11-13=0/2306, 13-14=-842/511, 14-15=-842/511, 15-16=-1472/0, 16-17=-1443/0, 17-18=-1443/0, 18-19=-19/0
BOT CHORD 31-32=0/1405, 30-31=0/2882, 29-30=0/2717, 28-29=0/2176, 26-28=0/2176, 25-26=-664/53, 24-25=-1087/0, 23-24=0/1472, 22-23=0/1472, 21-22=0/1472, 20-21=0/949
WEBS 7-29=0/423, 8-28=0/505, 11-25=-384/0, 15-23=-31/184, 16-22=-199/57, 2-32=-1619/0, 2-31=0/1089, 3-31=-361/0, 4-31=-635/0, 4-30=-185/342, 5-30=-344/0, 6-30=0/520, 6-29=-958/0, 10-25=-2115/0, 10-26=0/1581, 9-26=-253/228, 8-26=-1536/0, 13-25=-1703/0, 13-24=0/1243, 14-24=-378/0, 15-24=-997/0, 18-20=-1091/0, 18-21=0/595, 17-21=-413/0, 16-21=-191/356

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

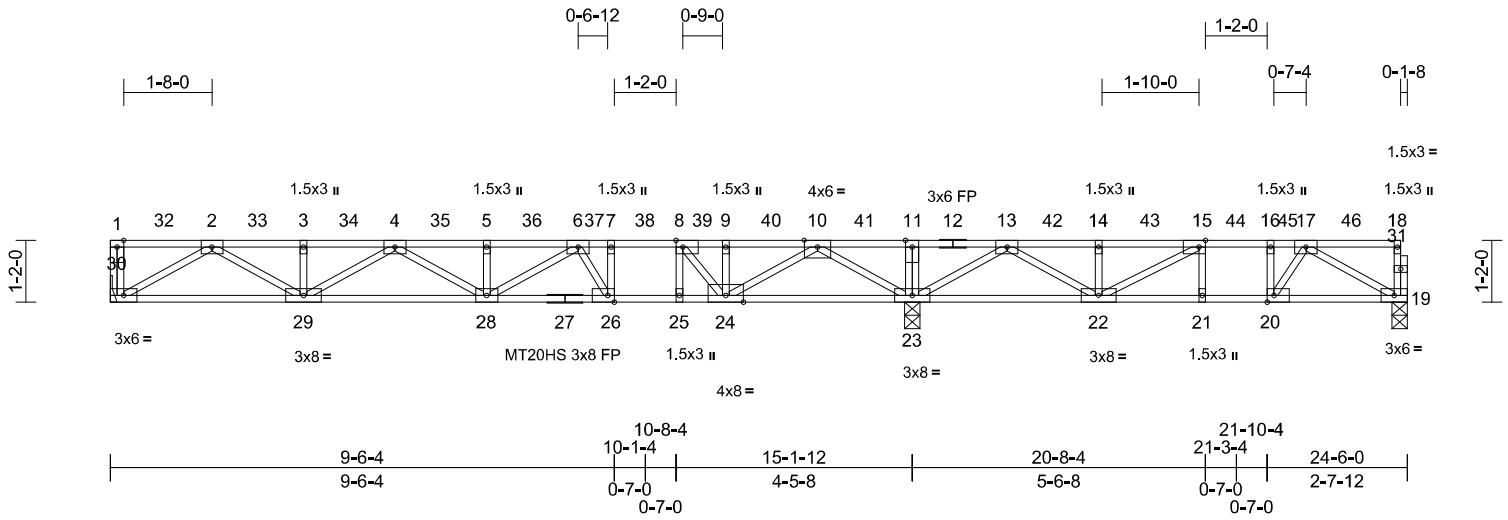
LOAD CASE(S) Standard

January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005143
25010143-A	F205	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:55 Page: 1
ID:gORCn50_Bq6GkXXZAnZB6FzkY3L-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:43.6

Plate Offsets (X, Y): [8:0-1-8,Edge], [15:0-1-8,Edge], [20:0-1-8,Edge], [26:0-1-8,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	0.89	Vert(LL)	-0.17	26-28	>999	480	MT20HS	187/143
TCDL	24.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.29	26-28	>612	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.04	23	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 128 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.1(flat) *Except* 12-18:2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS (size) 19=0-3-8, 23=0-3-8, 30= Mechanical
Max Grav 19=475 (LC 4), 23=2084 (LC 1), 30=910 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-30=-325/0, 18-19=-324/0, 1-2=0/0, 2-3=-2275/0, 3-4=-2275/0, 4-5=-2905/0, 5-6=-2905/0, 6-7=-2108/0, 7-8=-2108/0, 8-9=-1254/0, 9-10=-1254/0, 10-11=0/2172, 11-13=0/2172, 13-14=-533/564, 14-15=-533/564, 15-16=-791/92, 16-17=-791/92, 17-18=-19/0
BOT CHORD 29-30=0/1374, 28-29=0/2780, 26-28=0/2549, 25-26=0/2108, 24-25=0/2108, 23-24=-556/90, 22-23=-1093/0, 21-22=-92/791, 20-21=-92/791, 19-20=0/653
WEBS 7-26=0/596, 8-25=0/421, 11-23=-384/0, 15-21=-73/88, 16-20=-246/150, 2-30=-1589/0, 2-29=0/1052, 3-29=-362/0, 4-29=-590/0, 4-28=-200/323, 5-28=-350/0, 6-28=0/543, 6-26=-989/0, 10-23=-2067/0, 10-24=0/1534, 9-24=-255/229, 8-24=-1447/0, 13-23=-1466/0, 13-22=0/1026, 14-22=-394/0, 15-22=-698/0, 17-19=-749/0, 17-20=-195/323

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x5 MT20 unless otherwise indicated.
4) Refer to girder(s) for truss to truss connections.
5) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
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.

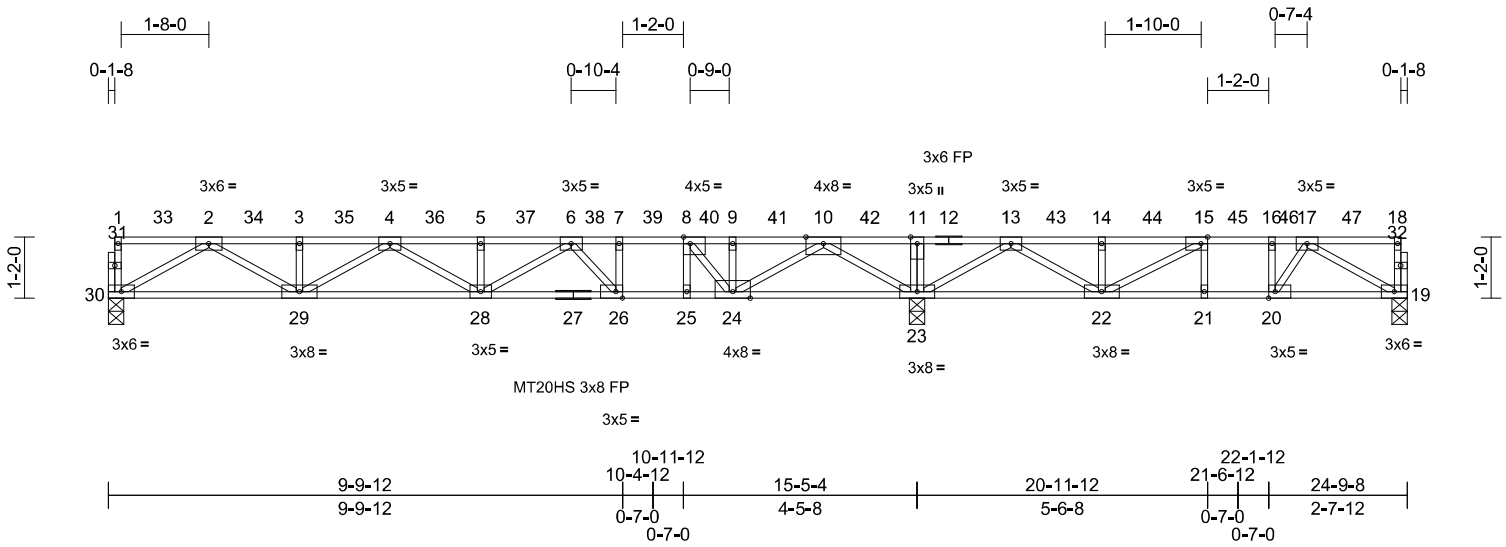
LOAD CASE(S) Standard

January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005144
25010143-A	F205A	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:55 Page: 1
ID:gORCn50_Bq6GkXXZAnZB6FzkY3L-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:44

Plate Offsets (X, Y): [8:0-1-8,Edge], [15:0-1-8,Edge], [20:0-1-8,Edge], [26:0-1-8,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	0.80	Vert(LL)	-0.19	26-28	>992	480	MT20HS	187/143
TCDL	24.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.31	26-28	>584	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.04	23	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 129 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.1(flat) *Except* 12-18:2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat) *Except* 27-19:2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS (size) 19=0-3-8, 23=0-3-8, 30=0-3-8
Max Grav 19=472 (LC 4), 23=2115 (LC 1), 30=918 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-30=-324/0, 18-19=-324/0, 1-2=-19/0, 2-3=-2329/0, 3-4=-2329/0, 4-5=-3016/0, 5-6=-3016/0, 6-7=-2150/0, 7-8=-2150/0, 8-9=-1238/0, 9-10=-1238/0, 10-11=0/2248, 11-13=0/2248, 13-14=-517/623, 14-15=-517/623, 15-16=-783/123, 16-17=-783/123, 17-18=-19/0
BOT CHORD 29-30=0/1399, 28-29=0/2863, 26-28=0/2690, 25-26=0/2150, 24-25=0/2150, 23-24=-597/74, 22-23=-1168/0, 21-22=-123/783, 20-21=-123/783, 19-20=-10/651
WEBS 7-26=0/413, 8-25=0/513, 11-23=-385/0, 15-21=-81/106, 16-20=-242/150, 2-30=-1612/0, 2-29=0/1086, 3-29=-363/0, 4-29=-624/0, 4-28=-183/344, 5-28=-346/0, 6-28=0/520, 6-26=-941/0, 10-23=-2105/0, 10-24=0/1573, 9-24=-254/223, 8-24=-1535/0, 13-23=-1479/0, 13-22=0/1040, 14-22=-392/0, 15-22=-729/0, 17-19=-746/14, 17-20=-210/315

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005145
25010143-A	F206	Floor	4	1	Job Reference (optional)

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:56 Page: 1
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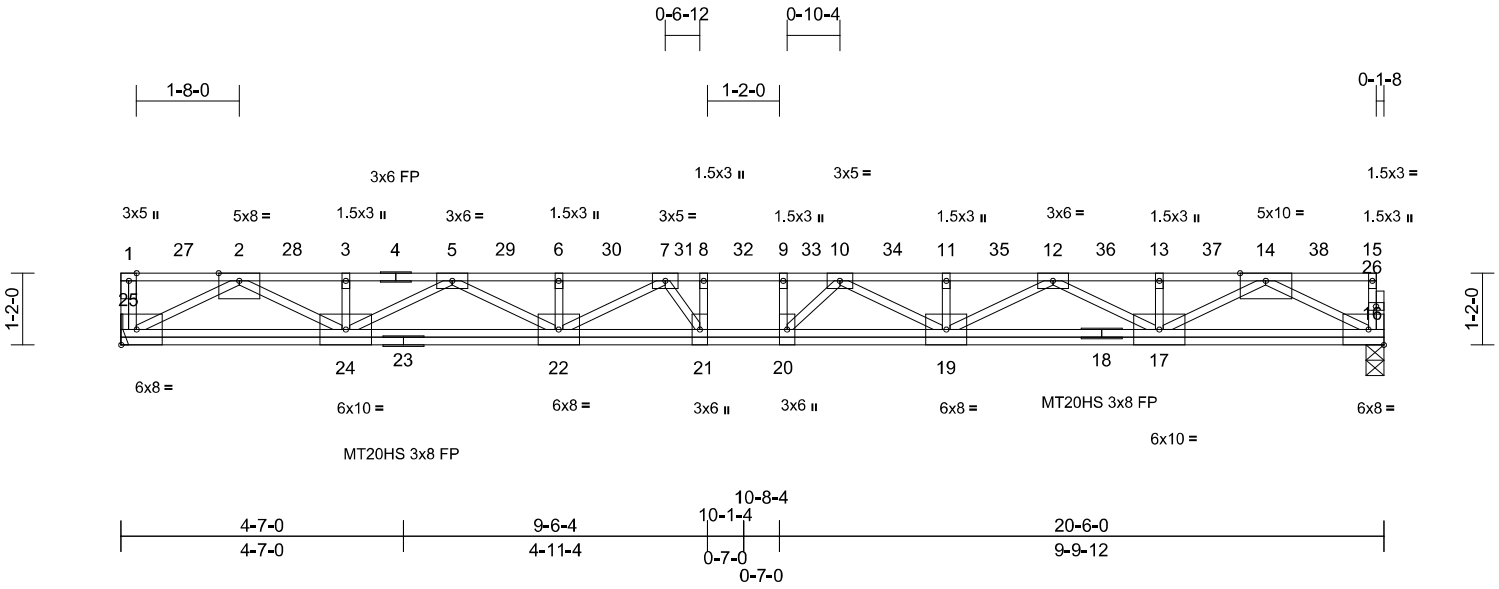


Scale = 1:37.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.37	20-21	>648	480	MT20	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.65	20-21	>375	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.99	Horz(CT)	0.07	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 133 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 4-15:2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 23-16,18-25:2x4 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 5-8-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 16=0-3-8, 25= Mechanical
Max Grav 16=1393 (LC 1), 25=1393 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-25=-324/0, 15-16=-323/0, 1-2=0/0, 2-3=-4111/0, 3-5=-4111/0, 5-6=-6447/0, 6-7=-6447/0, 7-8=-7086/0, 8-9=-7086/0, 9-10=-7086/0, 10-11=-6421/0, 11-12=-6421/0, 12-13=-4063/0, 13-14=-4063/0, 14-15=0/0
BOT CHORD 24-25=0/2329, 22-24=0/5492, 21-22=0/7001, 20-21=0/7086, 19-20=0/6978, 17-19=0/5453, 16-17=0/2258
WEBS 2-25=-2654/0, 2-24=0/2048, 3-24=-356/0, 5-24=-1587/0, 5-22=0/1097, 6-22=-352/0, 7-22=-804/0, 7-21=-262/499, 14-16=-2595/0, 14-17=0/2075, 13-17=-356/0, 12-17=-1597/0, 12-19=0/1112, 11-19=-352/0, 10-19=-768/0, 10-20=-235/495, 8-21=-246/154, 9-20=-237/103

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) Refer to girder(s) for truss to truss connections.
5) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
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

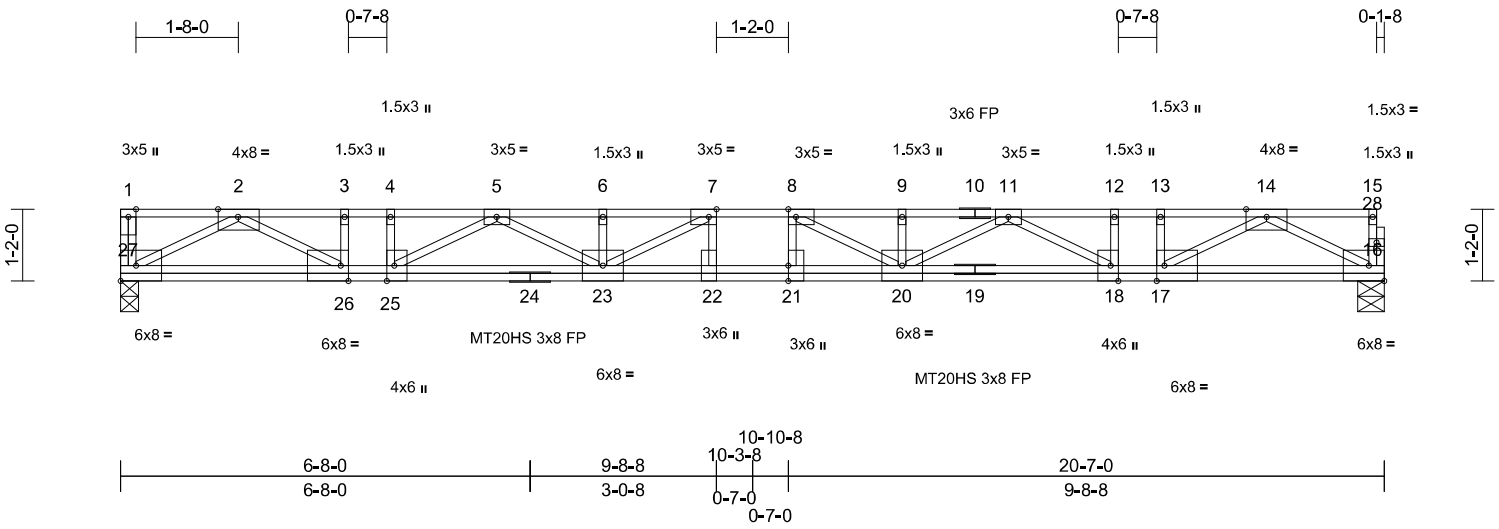
January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005146
25010143-A	F207	Floor	7	1	Job Reference (optional)

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:56 Page: 1
ID:VCKOlBur3SiXrdlGh75aIFzrNql-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:37.6

Plate Offsets (X, Y): [7:0-1-8,Edge], [8:0-1-8,Edge], [17:0-1-8,Edge], [18:0-3-0,Edge], [21:0-3-0,Edge], [25:0-3-0,Edge], [26:0-1-8,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	0.57	Vert(LL)	-0.36	21-22	>668	480	MT20	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.79	Vert(CT)	-0.63	21-22	>387	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.06	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 133 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 16=0-5-4, 27=0-3-8
Max Grav 16=1118 (LC 1), 27=1118 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-83/0, 15-16=-80/0, 1-2=0/0, 2-3=-3545/0, 3-4=-3545/0, 4-5=-3545/0, 5-6=-5464/0, 6-7=-5464/0, 7-8=-5720/0, 8-9=-5447/0, 9-11=-5447/0, 11-12=-3503/0, 12-13=-3503/0, 13-14=-3503/0, 14-15=0/0
BOT CHORD 26-27=0/1943, 25-26=0/3545, 23-25=0/4740, 22-23=0/5720, 21-22=0/5720, 20-21=0/5720, 18-20=0/4711, 17-18=0/3503, 16-17=0/1884
WEBS 7-23=-618/120, 2-27=-2214/0, 6-23=-169/0, 2-26=0/1841, 5-23=0/876, 3-26=-354/0, 5-25=-1419/0, 4-25=0/131, 8-20=-633/105, 14-16=-2165/0, 9-20=-168/0, 14-17=0/1861, 11-20=0/888, 13-17=-357/0, 11-18=-1432/0, 12-18=0/133, 7-22=-192/160, 8-21=-186/165

LOAD CASE(S) Standard

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) 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.

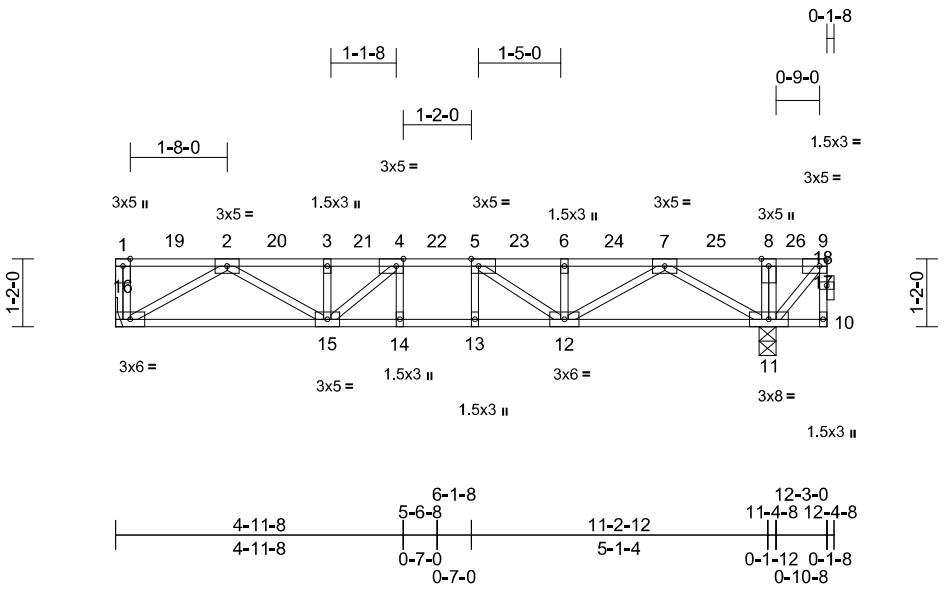
January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005147
25010143-A	F208	Floor	3	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:56 Page: 1

ID:5x?1kZqhwci0xSp?rli_6gzkXxq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:39.7

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [9:0-1-8,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	0.66	Vert(LL)	-0.06	13	>999	480	MT20	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.66	Vert(CT)	-0.10	13-14	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							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.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=0-3-8, 16= Mechanical
Max Grav 11=1316 (LC 1), 16=752 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-325/0, 9-10=0/371, 1-2=0/0, 2-3=-1740/0, 3-4=-1740/0, 4-5=-1946/0, 5-6=-1682/0, 6-7=-1682/0, 7-8=0/401, 8-9=0/401
BOT CHORD 15-16=0/1107, 14-15=0/1946, 13-14=0/1946, 12-13=0/1946, 11-12=0/988, 10-11=0/0
WEBS 4-14=-109/116, 5-13=-94/113, 8-11=-371/0, 2-16=-1280/0, 2-15=0/739, 3-15=-389/0, 4-15=-413/152, 7-11=-1325/0, 7-12=0/850, 6-12=-391/0, 5-12=-526/84, 9-11=-599/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 381 lb down at 12-2-4 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

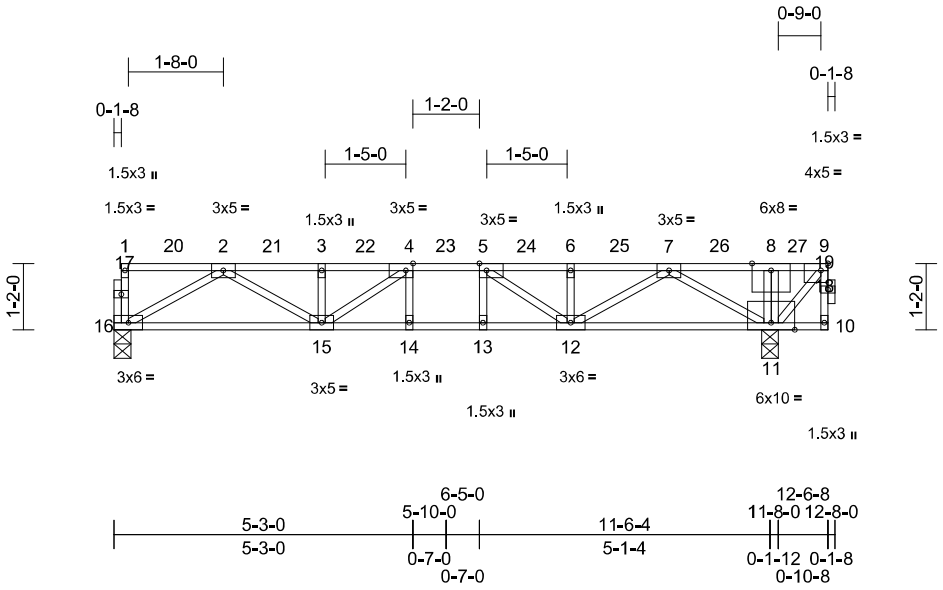
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 10-16=-10, 1-9=-128
Concentrated Loads (lb)
Vert: 10=-381 (F)

January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005148
25010143-A	F209	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:56 Page: 1
ID:nQszjg5_bghJHTNWzmdSpWzkY_3-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:40.5

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [9:0-1-8,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	0.63	Vert(LL)	-0.06	13-14	>999	480	MT20	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.34	Vert(CT)	-0.09	14	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.71	Horz(CT)	0.02	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 68 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 11-12.

REACTIONS (size) 11=0-3-8, 16=0-3-8
Max Grav 11=7893 (LC 1), 16=741 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-324/0, 9-10=0/646, 1-2=-19/0, 2-3=-1739/0, 3-4=-1739/0, 4-5=-1932/0, 5-6=-1565/0, 6-7=-1565/0, 7-8=0/762, 8-9=0/762
BOT CHORD 15-16=0/1100, 14-15=0/1932, 13-14=0/1932, 12-13=0/1932, 11-12=-186/817, 10-11=0/0
WEBS 4-14=-151/99, 5-13=-81/170, 8-11=-6281/0, 2-16=-1266/0, 2-15=0/746, 3-15=-393/0, 4-15=-376/200, 7-11=-1440/0, 7-12=0/936, 6-12=-376/0, 5-12=-679/0, 9-11=-1139/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 664 lb down at 12-5-12 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 10-16=-10, 1-9=-128
Concentrated Loads (lb)
Vert: 10=-664 (F), 9=-160, 8=-6079

January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005149
25010143-A	F209A	Floor	3	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:56 Page: 1

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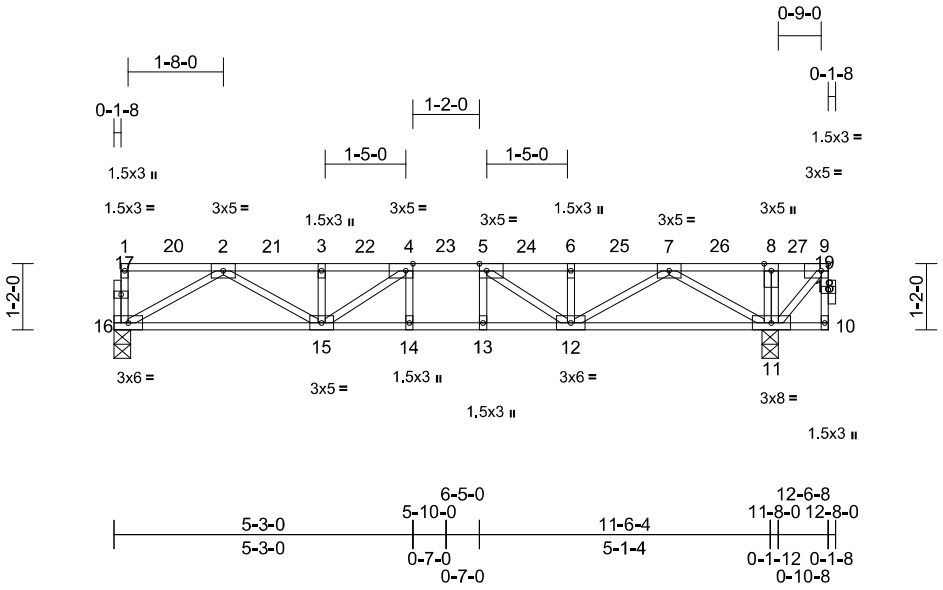


Scale = 1:40.5

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [9:0-1-8,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	0.64	Vert(LL)	-0.06	13-14	>999	480	MT20	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.11	14	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 68 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=0-3-8, 16=0-3-8
Max Grav 11=1508 (LC 1), 16=751 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-16=-324/0, 9-10=0/369, 1-2=-19/0, 2-3=-1774/0, 3-4=-1774/0, 4-5=-1984/0, 5-6=-1645/0, 6-7=-1645/0, 7-8=0/542, 8-9=0/542
BOT CHORD 15-16=0/1116, 14-15=0/1984, 13-14=0/1984, 12-13=0/1984, 11-12=0/901, 10-11=0/0
WEBS 4-14=-121/91, 5-13=-75/138, 8-11=-372/0, 2-16=-1285/0, 2-15=0/768, 3-15=-399/0, 4-15=-399/178, 7-11=-1386/0, 7-12=0/907, 6-12=-385/0, 5-12=-613/23, 9-11=-811/0

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 381 lb down at 12-5-12 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 10-16=-10, 1-9=-128
Concentrated Loads (lb)
Vert: 10=-381 (F), 9=-160

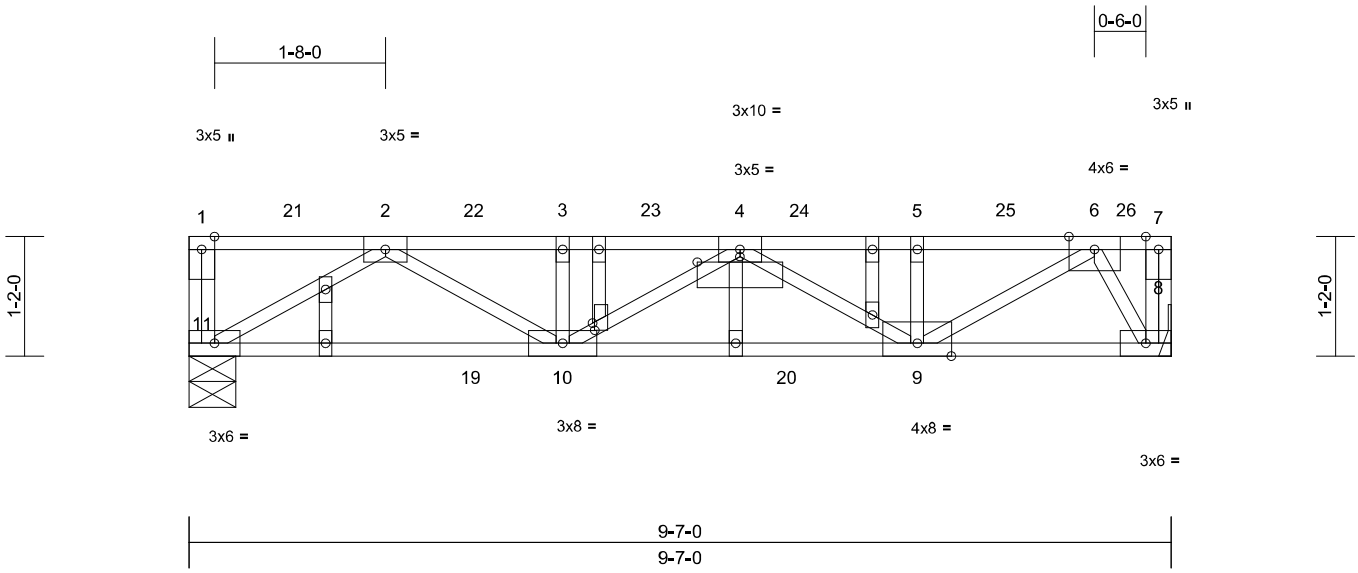
January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005150
25010143-A	F210	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:56 Page: 1

ID:SVwcBo2f1XsFX_WI8yCSIYzkXbc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:22.5

Plate Offsets (X, Y): [4:0-5-0,0-0-10], [14:0-0-13,0-0-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.66	Vert(LL)	-0.03	9-10	>999	480	MT20	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.69	Vert(CT)	-0.13	9-10	>850	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 57 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 8= Mechanical, 11=0-5-8
Max Grav 8=981 (LC 1), 11=947 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-11=-324/0, 7-8=-286/92, 1-2=0/0, 2-3=-2306/0, 3-4=-2306/0, 4-5=-1834/0, 5-6=-1834/0, 6-7=0/0
BOT CHORD 10-11=0/1394, 9-10=0/2273, 8-9=0/599
WEBS 2-11=-1612/0, 2-10=0/1114, 3-10=-353/0, 4-10=-181/299, 4-9=-607/0, 5-9=-431/0, 6-9=0/1441, 6-8=-1165/0

NOTES

1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
3) Gable studs spaced at 1-4-0 oc.
4) Refer to girder(s) for truss to truss connections.
5) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 250 lb down at 2-9-0, and 250 lb down at 5-10-0 on bottom 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: 8-11=-10, 1-24=-128, 7-24=-168
Concentrated Loads (lb)
Vert: 19=-250 (F), 20=-250 (F)

January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005151
25010143-A	F211	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:56 Page: 1
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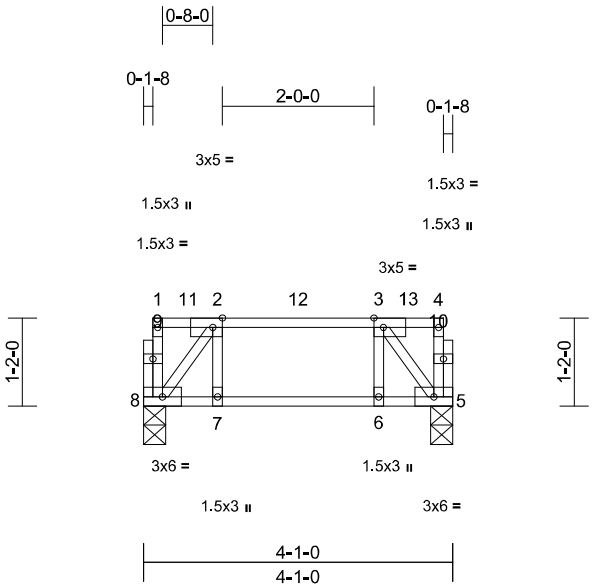


Scale = 1:30.4

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,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	0.54	Vert(LL)	-0.01	6-7	>999	480	MT20	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.23	Vert(CT)	-0.01	6-7	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 23 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 4-1-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=0-3-8, 8=0-3-8
Max Grav 5=393 (LC 11), 8=393 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-294/76, 4-5=-294/76, 1-2=-18/5, 2-3=-263/0, 3-4=-18/5
BOT CHORD 7-8=0/263, 6-7=0/263, 5-6=0/263
WEBS 2-8=-422/0, 3-5=-422/0, 2-7=-54/88, 3-6=-54/88

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

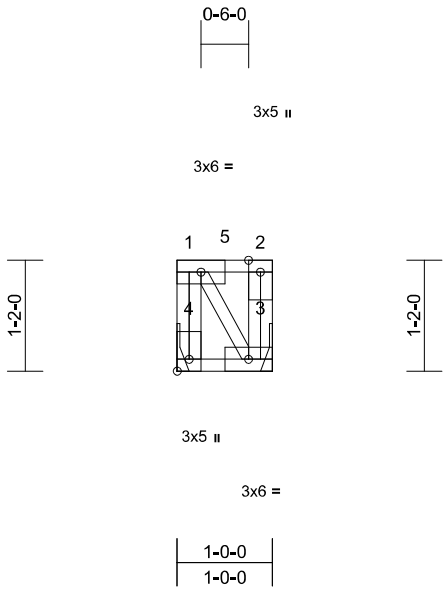
LOAD CASE(S) Standard

January 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005152
25010143-A	F212	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:57 Page: 1
ID:sGbBzZgLhG3TdykrA8J3_BzY1?A-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:24.3

Plate Offsets (X, Y): [4: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	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.00	Vert(CT)	0.00	4	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MP							Weight: 10 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)

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

REACTIONS (size) 3= Mechanical, 4= Mechanical
Max Grav 3=342 (LC 5), 4=342 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-338/0, 2-3=-338/0, 1-2=0/0
BOT CHORD 3-4=0/0
WEBS 1-3=0/0

NOTES
1) Refer to girder(s) for truss to truss connections.
2) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 3-4=-10, 1-2=-208

January 28,2025

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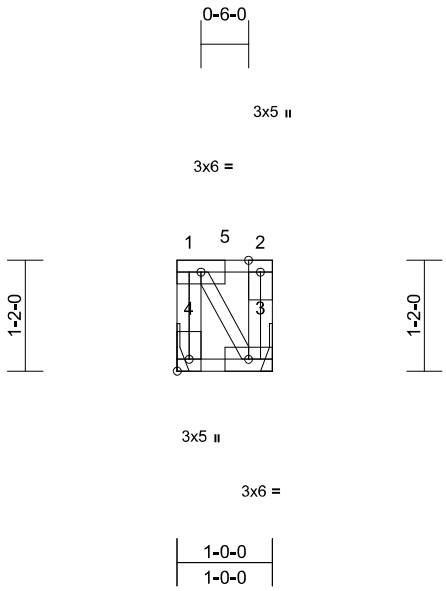
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 41 Magnolia Acres-2nd Floor-Greyson HC MNR SP I71005153
25010143-A	F213	Floor	2	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Sun Jan 26 20:47:57 Page: 1
ID:gd?miVN1ooumKe2CDYHCkKz6l5w-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:24.3

Plate Offsets (X, Y): [4: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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	24.0	Lumber DOL	1.00	BC	0.00	Vert(CT)	0.00	4	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MP							Weight: 10 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)

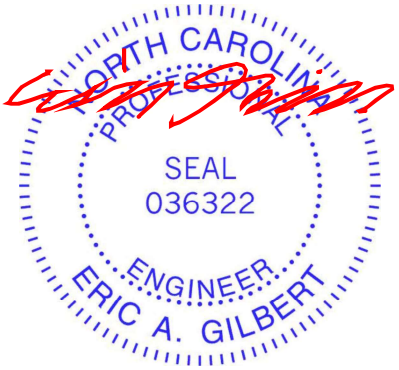
BRACING
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical
Max Grav 3=472 (LC 5), 4=312 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-308/0, 2-3=-468/0, 1-2=0/0
BOT CHORD 3-4=0/0
WEBS 1-3=0/0

NOTES
1) Refer to girder(s) for truss to truss connections.
2) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord, nonconcurrent with any other live loads.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 3-4=-10, 1-2=-128
Concentrated Loads (lb)
Vert: 2=-160



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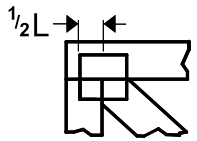
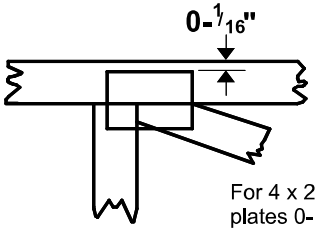
Symbols

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.

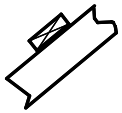
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

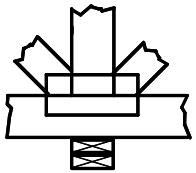
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

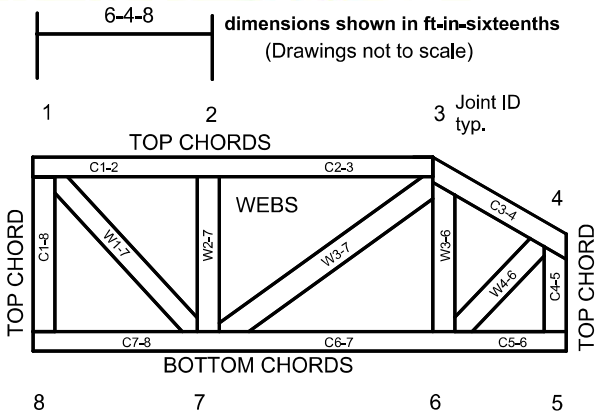


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.

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MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.