

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 2400183-08042
MCLEAN RESIDENCE

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I63717064 thru I63717089

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844



February 20, 2024

Johnson, Andrew

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 2400183-08042	Truss A01	Truss Type Common	Qty 6	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717064
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:42:59
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Page: 1

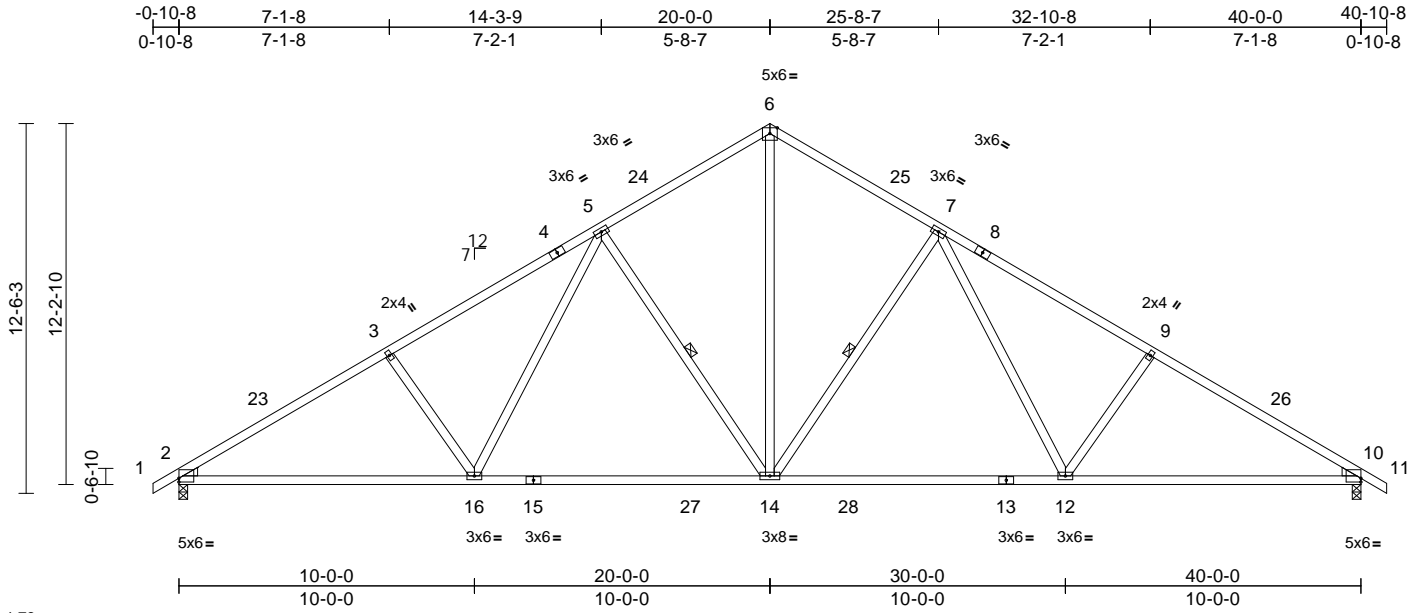


Plate Offsets (X, Y): [2:Edge,0-1-9], [10:Edge,0-1-9]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.38	14-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.63	14-16	>765	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.13	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 223 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2 *Except* 15-13:2x4 SP No.1
 WEBS 2x4 SP No.2 *Except* 12-9,16-3:2x4 SP No.3
 WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-8-3 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
 WEBS 1 Row at midpt 7-14, 5-14

REACTIONS

(size) 2=0-3-8, 10=0-3-8
 Max Horiz 2=-301 (LC 10)
 Max Uplift 2=-318 (LC 12), 10=-318 (LC 13)
 Max Grav 2=1692 (LC 19), 10=1692 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/26, 2-3=-2703/498, 3-5=-2503/524,
 5-6=-1760/442, 6-7=-1760/442,
 7-9=-2503/524, 9-10=-2703/498, 10-11=0/26
 BOT CHORD 2-16=-520/2455, 14-16=-304/1952,
 12-14=-185/1820, 10-12=-317/2229
 WEBS 6-14=-322/1433, 7-14=-746/331,
 7-12=-166/648, 9-12=-378/251,
 5-14=-746/331, 5-16=-166/648,
 3-16=-378/250

NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 3-1-8, Interior (1) 3-1-8 to 20-0-0, Exterior (2) 20-0-0 to 24-0-0, Interior (1) 24-0-0 to 40-10-8 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 4) All plates are 3x6 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SP No.2 .
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 318 lb uplift at joint 2 and 318 lb uplift at joint 10.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 20, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



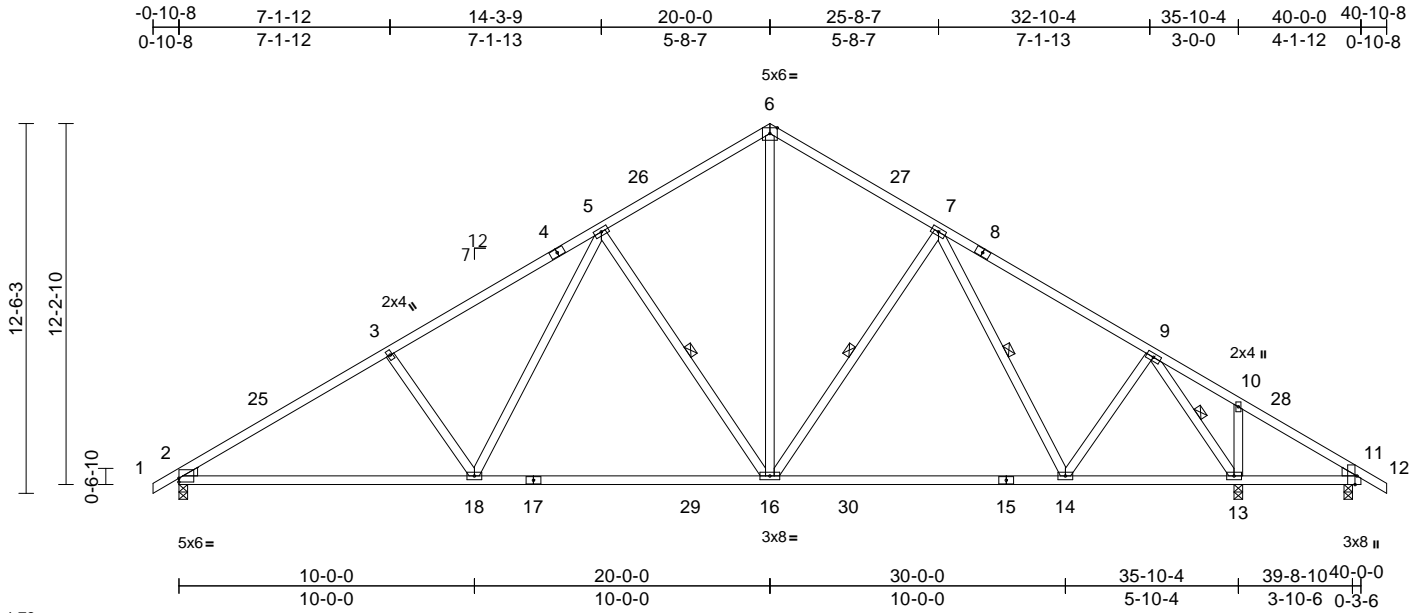
818 Soundside Road
 Edenton, NC 27932

Job 2400183-08042	Truss A01A	Truss Type Common	Qty 4	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717065
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:01
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.33	16-18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.51	16-18	>841	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.07	13	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 234 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 17-15:2x4 SP No.1
WEBS 2x4 SP No.2 *Except*
14-9,18-3,10-13,9-13:2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-3-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 7-16, 7-14, 5-16, 9-13

REACTIONS (size) 2=0-3-8, 11=0-3-8, 13=0-3-8
Max Horiz 2=-301 (LC 10)
Max Uplift 2=-289 (LC 12), 11=-203 (LC 25), 13=-343 (LC 13)
Max Grav 2=1489 (LC 19), 11=60 (LC 12), 13=2020 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-2321/442, 3-5=-2121/469, 5-6=-1352/375, 6-7=-1365/376, 7-9=-1297/315, 9-10=-83/664, 10-11=-126/668, 11-12=0/26
BOT CHORD 2-18=-472/2128, 16-18=-255/1614, 14-16=-98/1212, 13-14=-37/646, 11-13=-504/148
WEBS 6-16=-257/1036, 7-16=-269/250, 7-14=-386/101, 9-14=-44/722, 5-16=-753/333, 5-18=-170/665, 3-18=-387/252, 10-13=-210/99, 9-13=-2049/313

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 3-1-8, Interior (1) 3-1-8 to 20-0-0, Exterior (2) 20-0-0 to 24-0-0, Interior (1) 24-0-0 to 40-10-8 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
 - All plates are 3x6 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - All bearings are assumed to be SP No.2 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 289 lb uplift at joint 2, 343 lb uplift at joint 13 and 203 lb uplift at joint 11.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



NOTES
1) Unbalanced roof live loads have been considered for this design.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

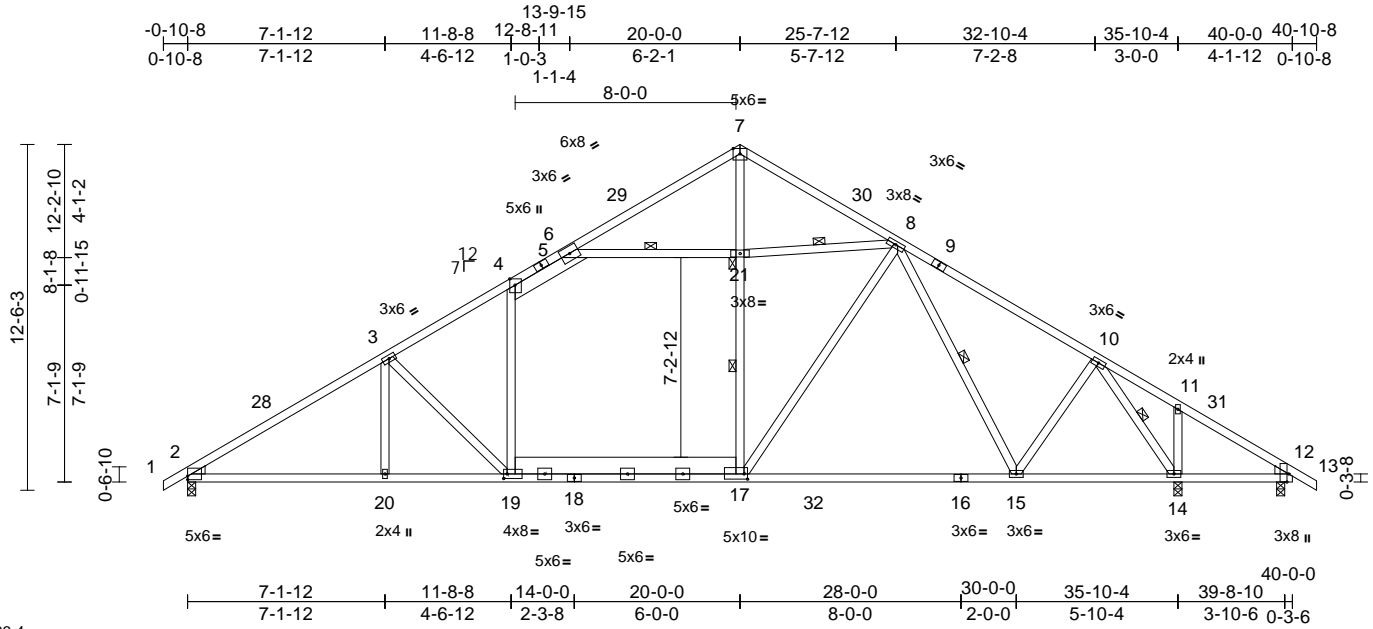
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss A01B	Truss Type Attic	Qty 5	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717066
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84 Components (Dunn, NC), Dunn, NC - 28334,

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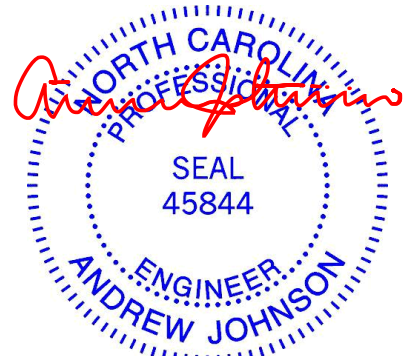
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.27	19-20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.49	19-20	>869	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.06	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS			0.11	17-19	>943	360	Weight: 272 lb	FT = 20%

LUMBER	WEBS	LOAD CASE(S)
TOP CHORD 2x4 SP No.1 *Except* 1-5-9-13:2x4 SP DSS, 4-6:2x6 SP No.2	3-20=0/272, 3-19=654/254, 4-19=89/726, 17-21=-374/310, 7-21=-270/385, 8-17=-267/1017, 8-15=-395/45,	Standard
BOT CHORD 2x4 SP DSS *Except* 19-17:2x8 SP DSS, 16-12:2x4 SP No.2	6-21=-1848/610, 10-15=0/703, 10-14=-2060/222, 11-14=-213/100, 8-21=-1848/610	
WEBS 2x4 SP No.3 *Except* 4-19,7-17,6-21:2x4 SP No.1, 17-8,15-8:2x4 SP No.2		
WEDGE Left: 2x4 SP No.3 Right: 2x4 SP No.3		
BRACING		
TOP CHORD Structural wood sheathing directly applied or 3-0-3 oc purlins.		
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 12-14.		
WEBS 1 Row at midpt 17-21, 8-15, 6-21, 10-14, 8-21		
JOINTS 1 Brace at Jt(s): 21		
REACTIONS		
(size) 2=0-3-8, 12=0-3-8, 14=0-3-8 Max Horiz 2=-301 (LC 10) Max Uplift 2=-272 (LC 12), 12=-51 (LC 13), 14=-277 (LC 13) Max Grav 2=1745 (LC 20), 12=109 (LC 25), 14=2030 (LC 21)		
FORCES		
(lb) - Maximum Compression/Maximum Tension		
TOP CHORD 1-2=0/26, 2-3=-2822/405, 3-4=-2392/363, 4-6=-1964/339, 6-7=-635/218, 7-8=-591/184, 8-10=-1609/327, 10-11=0/299, 11-12=-25/317, 12-13=0/26		
BOT CHORD 2-20=-438/2561, 19-20=-438/2561, 17-19=-255/2090, 15-17=-105/1520, 14-15=-95/951, 12-14=-237/66		

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 3-1-8, Interior (1) 3-1-8 to 20-0-0, Exterior (2) 20-0-0 to 24-0-0, Interior (1) 24-0-0 to 40-10-8 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 17-19
- Bearings are assumed to be: Joint 2 SP DSS, Joint 14 SP No.2, Joint 12 SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 272 lb uplift at joint 2, 277 lb uplift at joint 14 and 51 lb uplift at joint 12.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Attic room checked for L/360 deflection.



February 20, 2024

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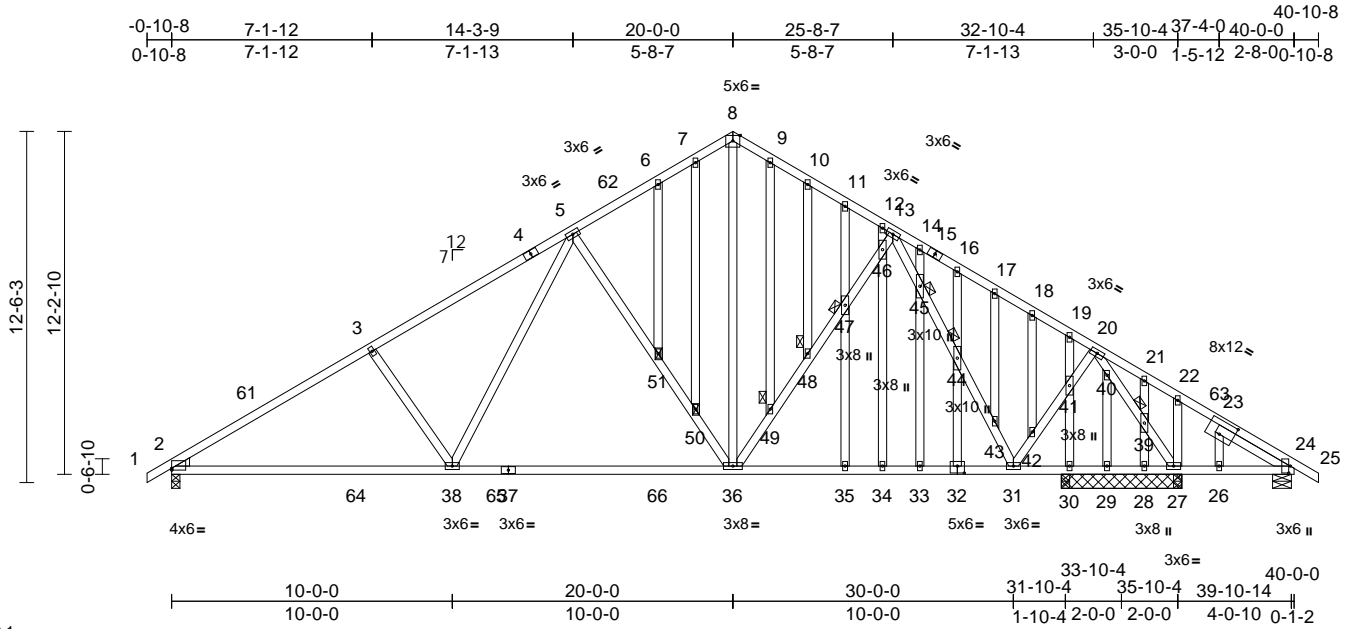
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss A01BE	Truss Type Common Structural Gable	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717067
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:02
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Plate Offsets (X, Y): [2:Edge,0-0-13], [23:0-6-0,0-5-12], [24:0-3-0,0-0-10], [32:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.42	36-38	>916	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.67	36-38	>575	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.06	30	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								Weight: 363 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1 *Except* 37-32:2x4 SP No.2
WEBS 2x4 SP No.2 *Except*
31-20,38-3,24-23,22-27,27-20:2x4 SP No.3
OTHERS 2x4 SP No.3 *Except*
33-45,34-46,48-10,49-9,50-7,51-6:2x4 SP No.2
WEDGE Left: 2x4 SP No.3
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
JOINTS
1 Brace at Jt(s): 39, 44, 45, 47, 48, 49, 50, 51
REACTIONS (size)
2=0-3-8, 24=0-8-0, 27=4-3-8, 28=4-3-8, 29=4-3-8, 30=0-3-8
Max Horiz 2=-301 (LC 10)
Max Uplift 2=-128 (LC 12), 24=-147 (LC 26), 27=-123 (LC 13), 28=-11 (LC 13), 29=-36 (LC 12), 30=-134 (LC 13)
Max Grav 2=1473 (LC 20), 24=35 (LC 12), 27=604 (LC 1), 28=132 (LC 1), 29=444 (LC 1), 30=920 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-2265/173, 3-5=-2065/200, 5-6=-1110/252, 6-7=-1060/264, 7-8=-1024/268, 8-9=-1032/266, 9-10=-1070/266, 10-11=-1060/246, 11-12=-1056/229, 12-13=-1146/248, 13-14=-475/220, 14-16=-531/228, 16-17=-514/193, 17-18=-489/165, 18-19=-520/134, 19-20=-280/83, 20-21=-6/460, 21-22=-34/539, 22-23=-64/558, 23-24=-84/501, 24-25=0/26

BOT CHORD 2-38=-397/2083, 36-38=-109/1461, 35-36=0/808, 34-35=0/808, 33-34=0/808, 31-33=0/808, 30-31=-250/123, 29-30=-250/123, 28-29=-250/123, 27-28=-250/123, 26-27=-424/129, 24-26=-424/129
WEBS 8-36=-143/760, 36-49=-65/320, 48-49=-61/283, 47-48=-52/323, 46-47=-59/303, 13-46=-78/367, 13-45=-986/86, 44-45=-933/78, 43-44=-959/77, 31-43=-1017/94, 31-42=-83/1078, 41-42=-92/1037, 20-41=-69/890, 5-51=-872/219, 50-51=-879/224, 36-50=-852/224, 5-38=0/894, 3-38=-395/251, 22-27=-151/89, 20-40=-771/49, 39-40=-309/0, 27-39=-420/14, 23-26=-24/43, 21-39=-268/58, 28-39=-134/43, 29-40=-537/57, 19-41=-534/89, 30-41=-722/133, 18-42=-9/57, 17-43=-88/41, 16-44=-61/51, 32-44=-41/58, 14-45=-27/89, 33-45=-16/32, 12-46=-126/217, 34-46=-55/196, 11-47=-122/59, 35-47=-159/69, 10-48=-63/29, 9-49=-20/51, 7-50=-12/47, 6-51=-16/12

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=3.0psf; h=25ft; Cat II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-10-8 to 3-1-8, Interior (1) 3-1-8 to 20-0-0, Exterior (2) 20-0-0 to 24-0-0, Interior (1) 24-0-0 to 40-10-8 zone; cantilever left exposed ; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 200.0lb AC unit load placed on the bottom chord, 9-1-0 from left end, supported at two points, 5-0-0 apart.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.1 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 128 lb uplift at joint 2, 147 lb uplift at joint 24, 123 lb uplift at joint 27, 11 lb uplift at joint 28, 36 lb uplift at joint 29 and 134 lb uplift at joint 30.



February 20,2024

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	MCLEAN RESIDENCE	I63717067
2400183-08042	A01BE	Common Structural Gable	1	1	Job Reference (optional)	

84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:02
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Page: 2

- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 13) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



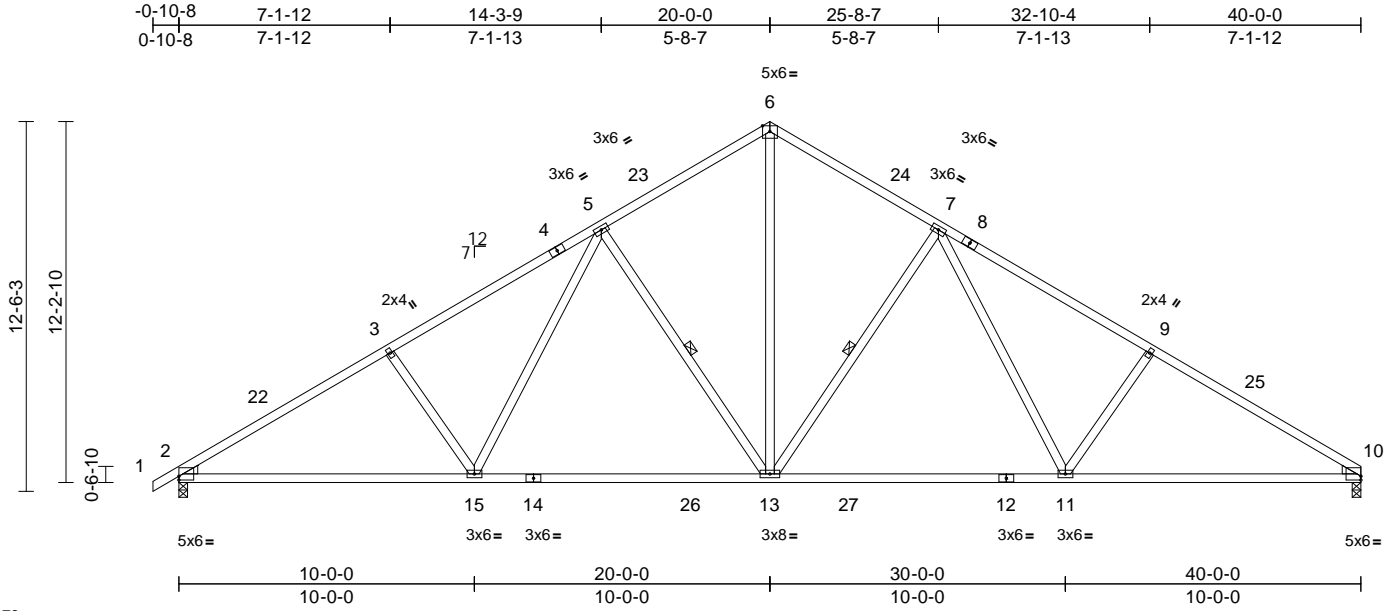
818 Soundside Road
 Edenton, NC 27932

Job 2400183-08042	Truss A01C	Truss Type Common	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717068
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:03
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Page: 1



Scale = 1:78

Plate Offsets (X, Y): [2:Edge,0-1-9], [10:Edge,0-1-9]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.38	13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.63	13-15	>765	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.12	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 221 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2 *Except* 14-12:2x4 SP No.1
 WEBS 2x4 SP No.2 *Except* 11-9,15-3:2x4 SP No.3
 WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-8-1 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
 WEBS 1 Row at midpt 7-13, 5-13

REACTIONS

(size) 2=0-3-8, 10=0-3-8
 Max Horiz 2=297 (LC 11)
 Max Uplift 2=-319 (LC 12), 10=-300 (LC 13)
 Max Grav 2=1693 (LC 19), 10=1642 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/26, 2-3=-2703/497, 3-5=-2504/525,
 5-6=-1761/442, 6-7=-1760/444,
 7-9=-2507/526, 9-10=-2707/499
 BOT CHORD 2-15=-527/2448, 13-15=-313/1946,
 11-13=-194/1814, 10-11=-335/2236
 WEBS 6-13=-324/1434, 7-13=-748/332,
 7-11=-169/654, 9-11=-381/251,
 5-13=-746/331, 5-15=-167/650,
 3-15=-378/250

NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 3-1-8, Interior (1) 3-1-8 to 20-0-0, Exterior (2) 20-0-0 to 24-0-0, Interior (1) 24-0-0 to 40-0-0 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 319 lb uplift at joint 2 and 300 lb uplift at joint 10.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 20, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



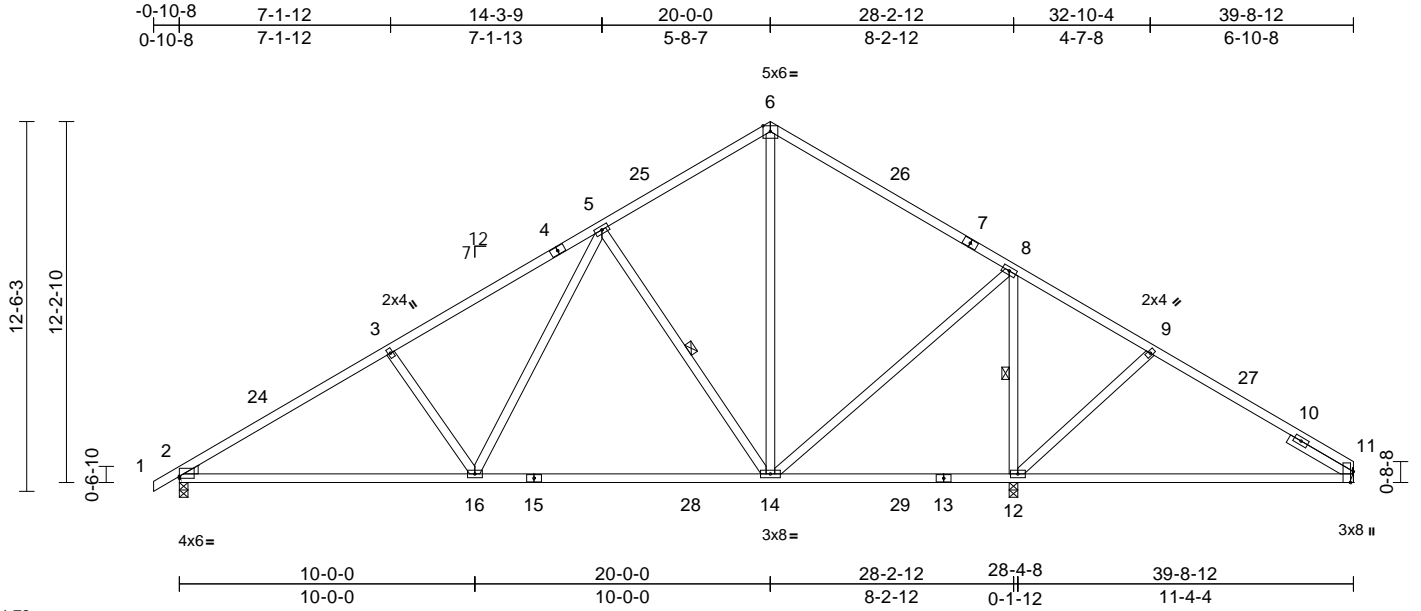
818 Soundside Road
 Edenton, NC 27932

Job 2400183-08042	Truss A01D	Truss Type Common	Qty 10	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717069
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:03
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Page: 1



Scale = 1:78

Plate Offsets (X, Y): [2:Edge,0-0-13], [11:0-4-7,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.41	14-16	>829	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.67	12-22	>205	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.04	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 222 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2 *Except* 2-15:2x4 SP No.1
 WEBS 2x4 SP No.2 *Except* 16-3:2x4 SP No.3
 WEDGE Left: 2x4 SP No.3
 SLIDER Right 2x4 SP No.3 -- 2-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 5-14, 8-12

REACTIONS (size) 2=0-3-8, 11= Mechanical, 12=0-3-8
 Max Horiz 2=296 (LC 9)
 Max Uplift 2=-240 (LC 12), 11=-150 (LC 13),
 12=-268 (LC 12)
 Max Grav 2=1198 (LC 1), 11=564 (LC 24),
 12=1632 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/26, 2-3=-1773/348, 3-5=-1569/376,
 5-6=-823/304, 6-8=-829/290, 8-9=-338/186,
 9-11=-1120/210
 BOT CHORD 2-16=-404/1648, 14-16=-184/1105,
 12-14=-26/241, 11-12=-193/468
 WEBS 6-14=-142/459, 8-14=-131/842,
 5-14=-767/328, 5-16=-172/715,
 3-16=-399/255, 8-12=-1190/270,
 9-12=-335/175

NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 3-1-3, Interior (1) 3-1-3 to 20-0-0, Exterior (2) 20-0-0 to 23-11-11, Interior (1) 23-11-11 to 39-8-12 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 4) All plates are 3x6 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Bearings are assumed to be: Joint 2 SP No.1 , Joint 12 SP No.2 .
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 240 lb uplift at joint 2, 150 lb uplift at joint 11 and 268 lb uplift at joint 12.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 20, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



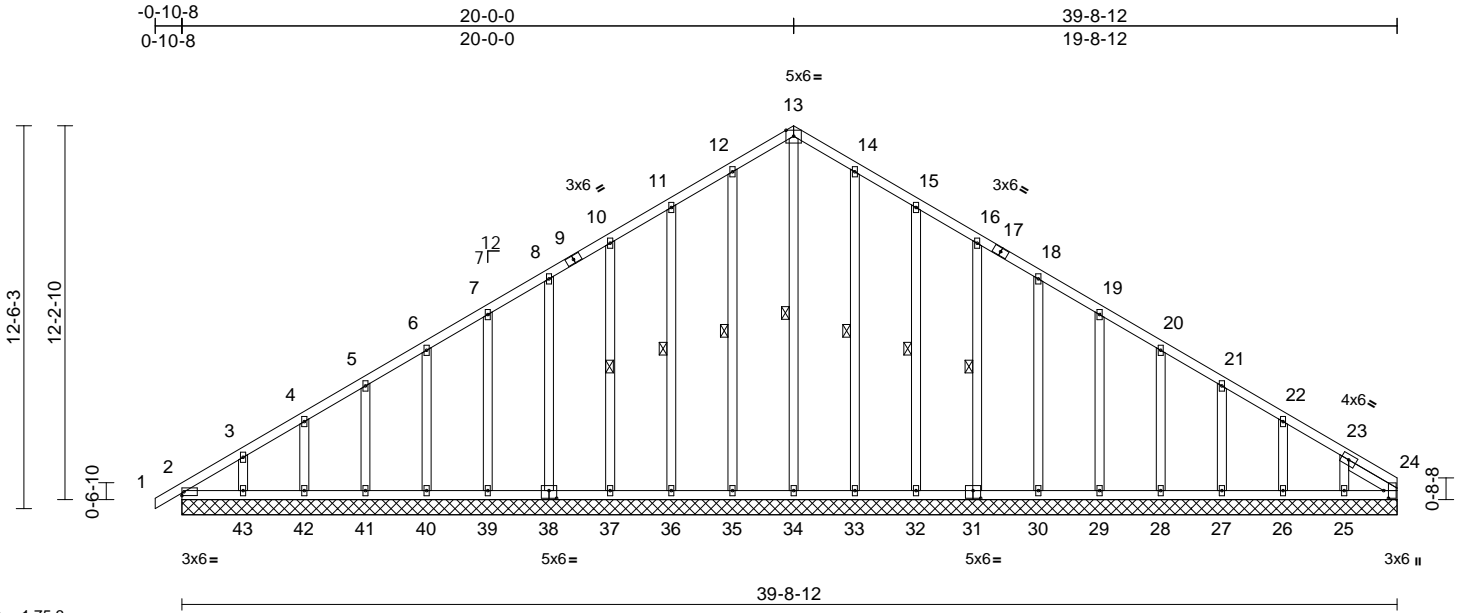
818 Soundside Road
 Edenton, NC 27932

Job 2400183-08042	Truss A01DE	Truss Type Common Structural Gable	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717070
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:04
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Page: 1



Scale = 1:75.3
Plate Offsets (X, Y): [24:0-3-0-0-1-14], [31:0-3-0-0-3-0], [38:0-3-0-0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	24	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 306 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except*
34-13,35-12,36-11,37-10,38-8,33-14,32-15,31-16,30-18:2x4 SP No.2
SLIDER Right 2x4 SP No.3 -- 1-10-8

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

WEBS 1 Row at midpt 13-34, 12-35, 11-36, 10-37, 14-33, 15-32, 16-31

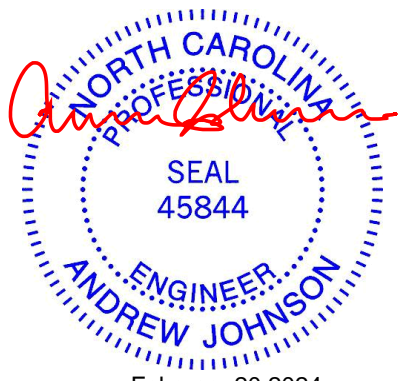
REACTIONS (size)
2=39-8-12, 24=39-8-12, 25=39-8-12, 26=39-8-12, 27=39-8-12, 28=39-8-12, 29=39-8-12, 30=39-8-12, 31=39-8-12, 32=39-8-12, 33=39-8-12, 34=39-8-12, 35=39-8-12, 36=39-8-12, 37=39-8-12, 38=39-8-12, 39=39-8-12, 40=39-8-12, 41=39-8-12, 42=39-8-12, 43=39-8-12, 44=39-8-12, 47=39-8-12
Max Horiz 2=296 (LC 9), 44=296 (LC 9)
Max Uplift 2=-87 (LC 8), 24=-41 (LC 11), 25=-119 (LC 13), 26=-64 (LC 13), 27=-69 (LC 13), 28=-67 (LC 13), 29=-68 (LC 13), 30=-67 (LC 13), 31=-66 (LC 13), 32=-74 (LC 13), 33=-56 (LC 13), 35=-60 (LC 12), 36=-72 (LC 12), 37=-67 (LC 12), 38=-68 (LC 12), 39=-68 (LC 12), 40=-67 (LC 12), 41=-71 (LC 12), 42=-54 (LC 12), 43=-119 (LC 12), 44=-87 (LC 8), 47=-41 (LC 11)

Max Grav 2=197 (LC 20), 24=136 (LC 13), 25=188 (LC 20), 26=167 (LC 20), 27=168 (LC 20), 28=168 (LC 20), 29=167 (LC 20), 30=170 (LC 20), 31=167 (LC 20), 32=166 (LC 20), 33=173 (LC 20), 34=231 (LC 13), 35=177 (LC 19), 36=167 (LC 19), 37=168 (LC 19), 38=168 (LC 19), 39=168 (LC 19), 40=168 (LC 19), 41=170 (LC 19), 42=160 (LC 19), 43=198 (LC 19), 44=197 (LC 20), 47=136 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-288/228, 3-4=-229/200, 4-5=-202/184, 5-6=-176/164, 6-7=-161/157, 7-8=-147/163, 8-10=-134/193, 10-11=-174/222, 11-12=-218/254, 12-13=-254/286, 13-14=-254/286, 14-15=-218/244, 15-16=-174/191, 16-18=-136/144, 18-19=-95/94, 19-20=-72/65, 20-21=-83/60, 21-22=-105/79, 22-23=-157/98, 23-24=-68/26
BOT CHORD 2-43=-219/218, 42-43=-120/194, 41-42=-120/194, 40-41=-120/194, 39-40=-120/194, 37-39=-120/194, 36-37=-120/194, 35-36=-120/194, 34-35=-120/194, 33-34=-120/194, 32-33=-120/194, 30-32=-120/194, 29-30=-118/192, 28-29=-118/192, 27-28=-118/192, 26-27=-118/192, 25-26=-118/192, 24-25=-118/192

WEBS 13-34=-221/138, 12-35=-136/72, 11-36=-127/84, 10-37=-128/79, 8-38=-128/80, 7-39=-128/79, 6-40=-128/79, 5-41=-129/81, 4-42=-125/74, 3-43=-140/101, 14-33=-132/68, 15-32=-128/85, 16-31=-127/78, 18-30=-128/79, 19-29=-128/80, 20-28=-128/80, 21-27=-128/80, 22-26=-129/79, 23-25=-144/115

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) 0-10-8 to 3-1-3, Exterior (2) 3-1-3 to 20-0-0, Corner (3) 20-0-0 to 24-0-0, Exterior (2) 24-0-0 to 39-8-12 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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Job	Truss	Truss Type	Qty	Ply	MCLEAN RESIDENCE	I63717070
2400183-08042	A01DE	Common Structural Gable	1	1	Job Reference (optional)	

84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:04
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Page: 2

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 2, 41 lb uplift at joint 24, 60 lb uplift at joint 35, 72 lb uplift at joint 36, 67 lb uplift at joint 37, 68 lb uplift at joint 38, 68 lb uplift at joint 39, 67 lb uplift at joint 40, 71 lb uplift at joint 41, 54 lb uplift at joint 42, 119 lb uplift at joint 43, 56 lb uplift at joint 33, 74 lb uplift at joint 32, 66 lb uplift at joint 31, 67 lb uplift at joint 30, 68 lb uplift at joint 29, 67 lb uplift at joint 28, 69 lb uplift at joint 27, 64 lb uplift at joint 26, 119 lb uplift at joint 25, 87 lb uplift at joint 2 and 41 lb uplift at joint 24.
- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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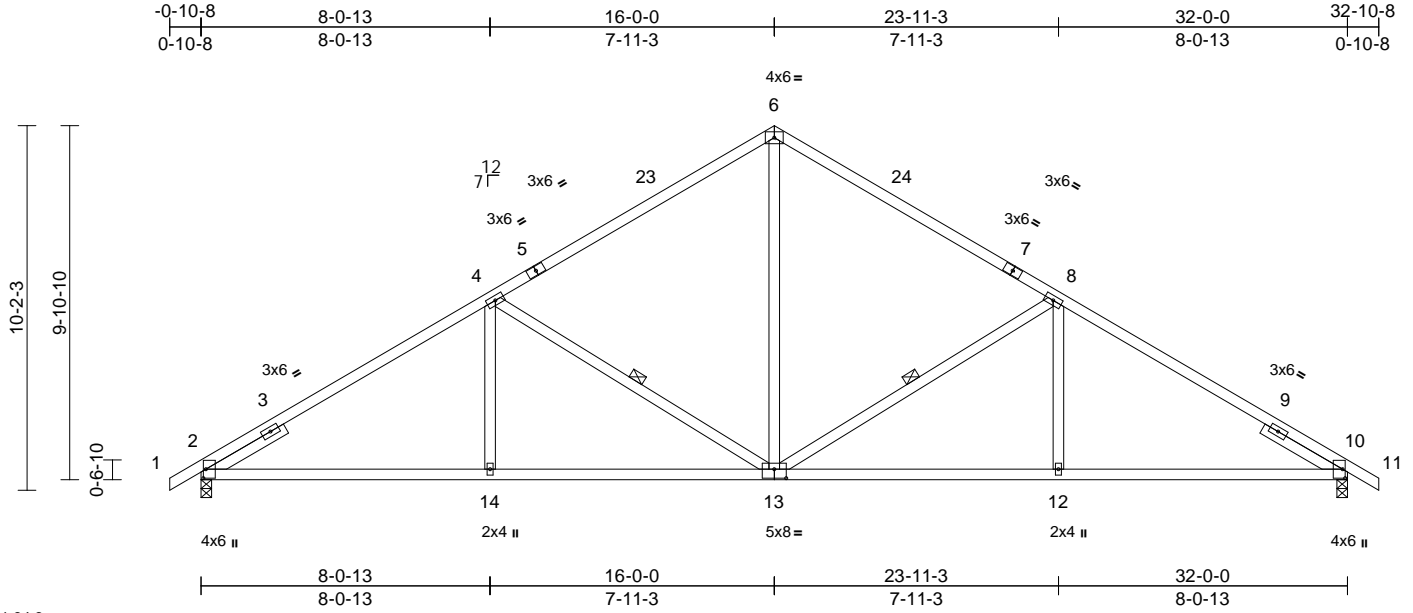
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss B01	Truss Type Common	Qty 5	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717071
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:04
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Page: 1



Scale = 1:64.3

Plate Offsets (X, Y): [2:0-3-0,0-0-14], [10:0-3-0,0-0-14], [13:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.09	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.22	12-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.07	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								Weight: 168 lb FT = 20%

LUMBER

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- WEBS 2x4 SP No.2 *Except* 14-4,12-8:2x4 SP No.3
- SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

BRACING

- TOP CHORD Structural wood sheathing directly applied.
- BOT CHORD Rigid ceiling directly applied or 9-7-3 oc bracing.
- WEBS 1 Row at midpt 4-13, 8-13

REACTIONS

- (size) 2=0-3-8, 10=0-3-8
- Max Horiz 2=243 (LC 11)
- Max Uplift 2=-259 (LC 12), 10=-259 (LC 13)
- Max Grav 2=1330 (LC 1), 10=1330 (LC 1)

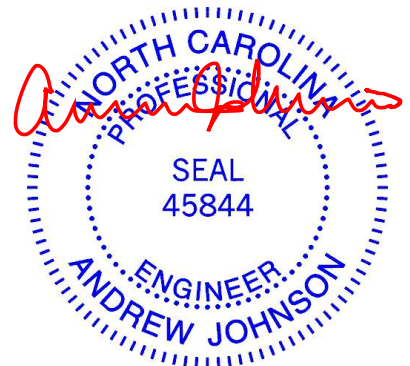
FORCES

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/31, 2-4=-1763/368, 4-6=-1376/331, 6-8=-1376/331, 8-10=-1763/368, 10-11=0/31
- BOT CHORD 2-14=-356/1615, 12-14=-356/1615, 10-12=-197/1600
- WEBS 4-14=0/309, 4-13=-669/304, 6-13=-159/836, 8-13=-669/305, 8-12=0/309

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-3-14, Interior (1) 2-3-14 to 16-0-0, Exterior (2) 16-0-0 to 19-2-6, Interior (1) 19-2-6 to 32-10-8 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be SP No.2 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 259 lb uplift at joint 2 and 259 lb uplift at joint 10.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 20,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



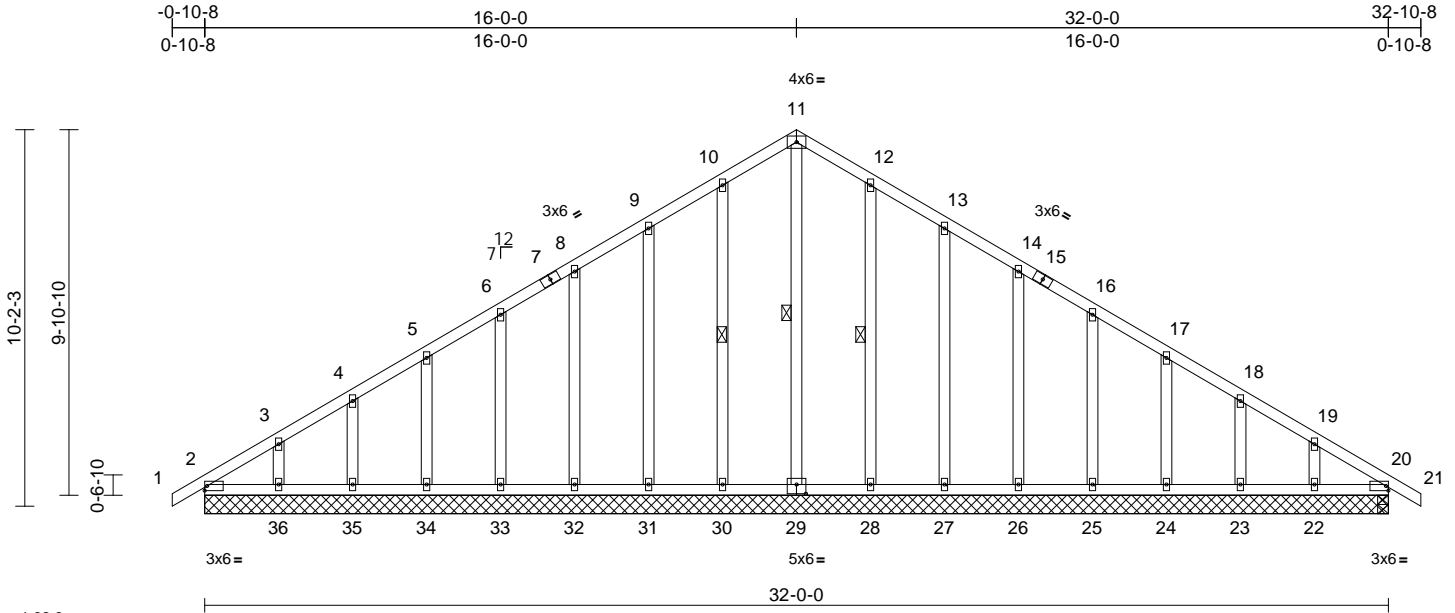
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss B01E	Truss Type Common Structural Gable	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717072
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:05
ID:zftuD50UDfmJFJq9n60C?yzo2in-RfC?PsB70Hq3NSgPqnL8w3uITxbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:62.3
Plate Offsets (X, Y): [29:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	0.00	36-39	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	36-39	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	20	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 217 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except*
29-11,30-10,31-9,28-12,27-13:2x4 SP No.2

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

WEBS 1 Row at midpt 11-29, 10-30, 12-28

REACTIONS (size)
2=32-0-0, 20=32-0-0, 22=32-0-0,
23=32-0-0, 24=32-0-0, 25=32-0-0,
26=32-0-0, 27=32-0-0, 28=32-0-0,
29=32-0-0, 30=32-0-0, 31=32-0-0,
32=32-0-0, 33=32-0-0, 34=32-0-0,
35=32-0-0, 36=32-0-0, 37=32-0-0,
40=32-0-0
Max Horiz 2=-243 (LC 10), 37=-243 (LC 10)
Max Uplift 2=-70 (LC 8), 20=-14 (LC 9),
22=-98 (LC 13), 23=-60 (LC 13),
24=-70 (LC 13), 25=-67 (LC 13),
26=-67 (LC 13), 27=-72 (LC 13),
28=-61 (LC 13), 30=-64 (LC 12),
31=-71 (LC 12), 32=-67 (LC 12),
33=-67 (LC 12), 34=-70 (LC 12),
35=-57 (LC 12), 36=-108 (LC 12),
37=-70 (LC 8), 40=-14 (LC 9)
Max Grav 2=180 (LC 20), 20=140 (LC 1),
22=182 (LC 20), 23=164 (LC 20),
24=169 (LC 20), 25=168 (LC 20),
26=168 (LC 20), 27=168 (LC 20),
28=173 (LC 20), 29=204 (LC 22),
30=176 (LC 19), 31=167 (LC 19),
32=168 (LC 19), 33=168 (LC 19),
34=170 (LC 19), 35=161 (LC 19),
36=193 (LC 19), 37=180 (LC 20),
40=140 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-217/186, 3-4=-175/159,
4-5=-154/143, 5-6=-139/133, 6-8=-124/149,
8-9=-135/178, 9-10=-178/209,
10-11=-217/243, 11-12=-217/243,
12-13=-178/199, 13-14=-135/147,
14-16=-95/98, 16-17=-62/58, 17-18=-73/51,
18-19=-97/68, 19-20=-154/105, 20-21=0/26
BOT CHORD 2-36=-181/183, 35-36=-99/164,
34-35=-99/164, 33-34=-99/164,
32-33=-99/164, 31-32=-99/164,
30-31=-99/164, 28-30=-99/164,
27-28=-99/164, 26-27=-99/164,
25-26=-99/164, 24-25=-99/164,
23-24=-99/164, 22-23=-99/164,
20-22=-99/164
WEBS 11-29=-183/105, 10-30=-136/76,
9-31=-127/83, 8-32=-128/79, 6-33=-128/80,
5-34=-129/81, 4-35=-126/76, 3-36=-138/96,
12-28=-133/73, 13-27=-128/84,
14-26=-128/79, 16-25=-128/80,
17-24=-128/80, 18-23=-127/77,
19-22=-138/91

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-10-8 to 2-3-14, Exterior (2) 2-3-14 to 16-0-0, Corner (3) 16-0-0 to 19-2-6, Exterior (2) 19-2-6 to 32-10-8 zone; cantilever left exposed ; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .



Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	MCLEAN RESIDENCE
2400183-08042	B01E	Common Structural Gable	1	1	I63717072
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:05
 ID:zftuD50UDfmJFJq9n60C?yzo2in-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 2

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 2, 14 lb uplift at joint 20, 64 lb uplift at joint 30, 71 lb uplift at joint 31, 67 lb uplift at joint 32, 67 lb uplift at joint 33, 70 lb uplift at joint 34, 57 lb uplift at joint 35, 108 lb uplift at joint 36, 61 lb uplift at joint 28, 72 lb uplift at joint 27, 67 lb uplift at joint 26, 67 lb uplift at joint 25, 70 lb uplift at joint 24, 60 lb uplift at joint 23, 98 lb uplift at joint 22, 70 lb uplift at joint 2 and 14 lb uplift at joint 20.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
 Edenton, NC 27932

Job 2400183-08042	Truss C01	Truss Type Common	Qty 4	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717073
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:05
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Page: 1

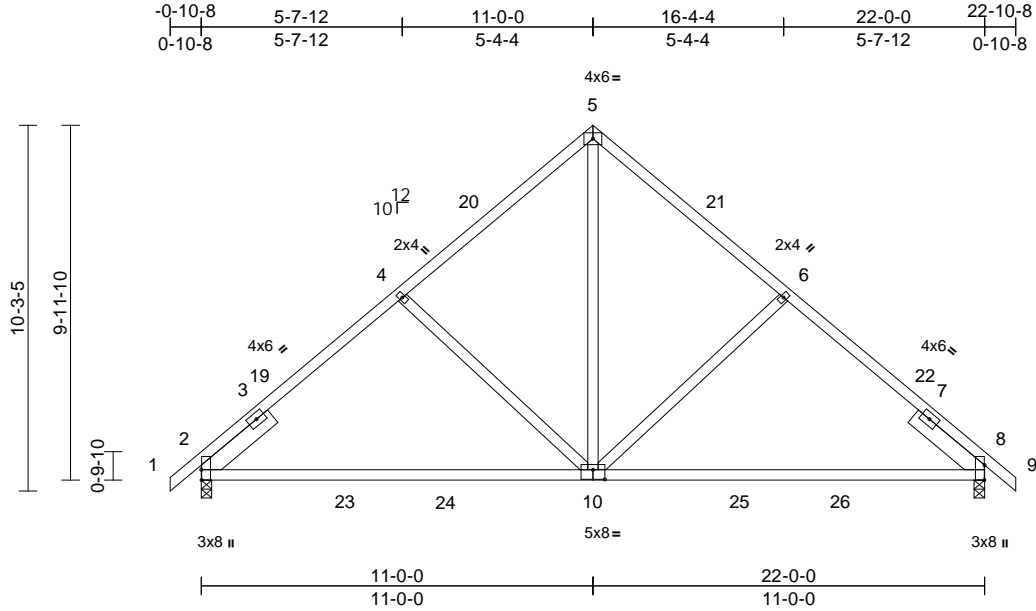


Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-0-0,0-0-0], [8:0-5-1,Edge], [8:0-0-0,0-0-0], [10:0-4-0,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.19	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.39	10-13	>679	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 126 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 2-6-0, Right 2x6 SP No.2 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

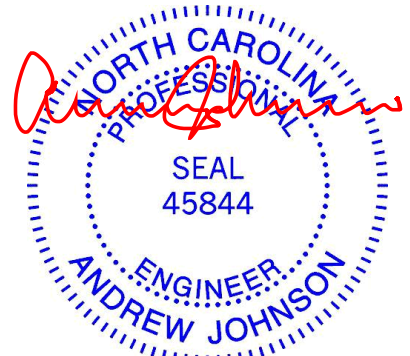
REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=-245 (LC 10)
Max Uplift 2=-165 (LC 12), 8=-165 (LC 13)
Max Grav 2=933 (LC 1), 8=933 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-4=-988/230, 4-5=-818/250, 5-6=-818/250, 6-8=-987/230, 8-9=0/34
BOT CHORD 2-8=-248/866
WEBS 5-10=-181/686, 6-10=-335/247, 4-10=-335/247

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-0-0, Exterior (2) 11-0-0 to 14-0-0, Interior (1) 14-0-0 to 22-10-8 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 165 lb uplift at joint 2 and 165 lb uplift at joint 8.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 20, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



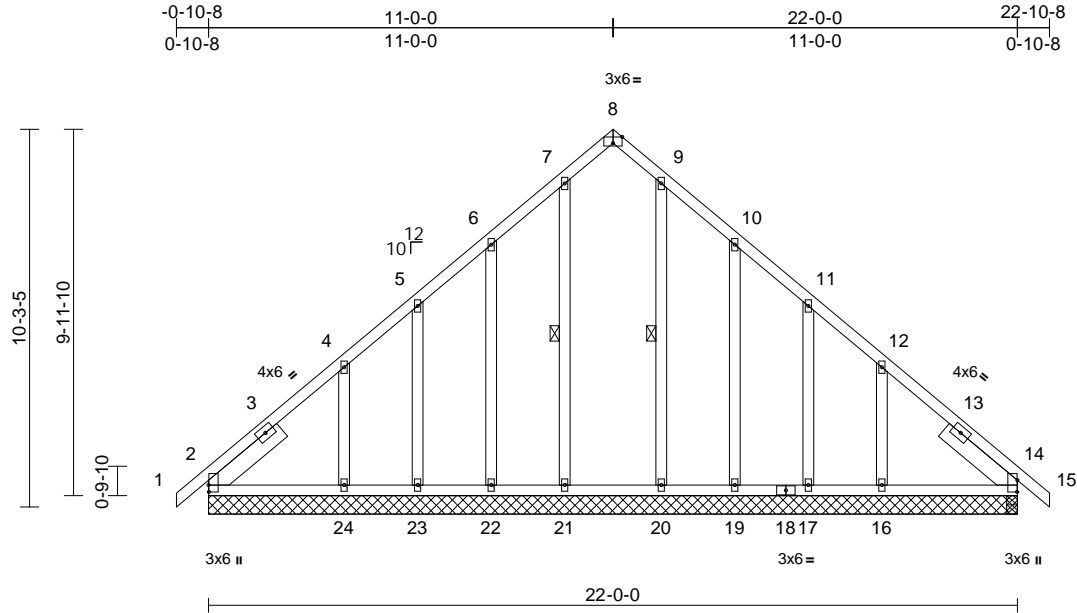
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss C01E	Truss Type Common Structural Gable	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717074
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:06
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Page: 1



Scale = 1:62.7

Plate Offsets (X, Y): [2:0-2-4,0-0-2], [8:0-3-0,Edge], [9:0-0-0,Edge], [10:0-0-0,Edge], [11:0-0-0,Edge], [12:0-0-0,Edge], [14:0-3-13,0-0-2], [14:0-0-0,0-0-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	0.01	16-31	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.01	16-31	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.02	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 160 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.2 *Except*
23-5,24-4,17-11,16-12:2x4 SP No.3
SLIDER Left 2x6 SP No.2 -- 2-6-0, Right 2x6 SP No.2 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-21, 9-20

REACTIONS (size)
2=22-0-0, 14=22-0-0, 16=22-0-0,
17=22-0-0, 19=22-0-0, 20=22-0-0,
21=22-0-0, 22=22-0-0, 23=22-0-0,
24=22-0-0, 25=22-0-0, 29=22-0-0
Max Horiz 2=-245 (LC 10), 25=-245 (LC 10)
Max Uplift 2=-21 (LC 8), 14=-2 (LC 9),
16=-235 (LC 13), 17=-33 (LC 13),
19=-138 (LC 13), 21=-16 (LC 9),
22=-134 (LC 12), 23=-33 (LC 12),
24=-238 (LC 12), 25=-21 (LC 8),
29=-2 (LC 9)
Max Grav 2=265 (LC 21), 14=255 (LC 22),
16=325 (LC 20), 17=117 (LC 20),
19=189 (LC 20), 20=185 (LC 20),
21=202 (LC 19), 22=184 (LC 19),
23=117 (LC 19), 24=328 (LC 19),
25=265 (LC 21), 29=255 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-4=-285/175, 4-5=-169/74,
5-6=-140/64, 6-7=-129/101, 7-8=-115/92,
8-9=-115/92, 9-10=-121/88, 10-11=-120/40,
11-12=-157/48, 12-14=-264/176, 14-15=0/34

BOT CHORD 2-24=-168/275, 23-24=-168/275,
22-23=-168/275, 21-22=-168/275,
20-21=-168/275, 19-20=-168/275,
17-19=-168/275, 16-17=-168/275,
14-16=-168/275
WEBS 7-21=-109/31, 9-20=-92/10, 6-22=-184/140,
5-23=-100/65, 4-24=-263/208,
10-19=-183/144, 11-17=-100/67,
12-16=-260/202

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-10-8 to 2-1-8, Exterior (2) 2-1-8 to 11-0-0, Corner (3) 11-0-0 to 14-0-0, Exterior (2) 14-0-0 to 22-10-8 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .

10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 2, 2 lb uplift at joint 14, 16 lb uplift at joint 21, 134 lb uplift at joint 22, 33 lb uplift at joint 23, 238 lb uplift at joint 24, 138 lb uplift at joint 19, 33 lb uplift at joint 17, 235 lb uplift at joint 16, 21 lb uplift at joint 2 and 2 lb uplift at joint 14.

11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 20,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



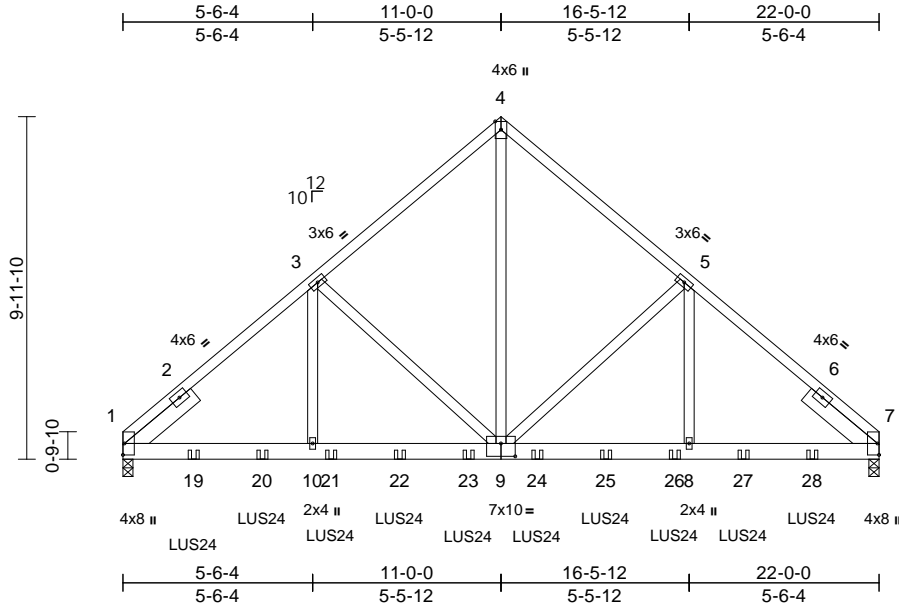
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss C02G	Truss Type Common Girder	Qty 1	Ply 2	MCLEAN RESIDENCE Job Reference (optional)	163717075
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:06
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Page: 1



Scale = 1:67

Plate Offsets (X, Y): [9:0-5-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.07	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.14	9-10	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 309 lb	FT = 20%

LUMBER

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x6 SP No.2
- WEBS 2x4 SP No.2 *Except* 5-8,3-10:2x4 SP No.3
- SLIDER Left 2x6 SP No.2 -- 2-6-0, Right 2x6 SP No.2 -- 2-6-0

BRACING

- TOP CHORD Structural wood sheathing directly applied or 5-7-3 oc purlins.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

- (size) 1=0-3-8, 7=0-3-8
- Max Horiz 1=224 (LC 24)
- Max Uplift 1=-920 (LC 8), 7=-929 (LC 9)
- Max Grav 1=3573 (LC 1), 7=3604 (LC 1)

FORCES

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-3=-4237/1129, 3-4=-3047/899, 4-5=-3047/899, 5-7=-4241/1129
- BOT CHORD 1-10=-904/3184, 8-10=-904/3188, 7-8=-792/3188
- WEBS 4-9=-1002/3423, 5-9=-1268/510, 5-8=-371/1384, 3-9=-1262/507, 3-10=-369/1378

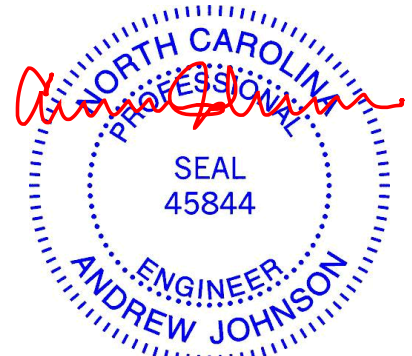
NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 920 lb uplift at joint 1 and 929 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 2-0-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-60, 4-7=-60, 11-15=-20
Concentrated Loads (lb)
Vert: 19=-544 (B), 20=-544 (B), 21=-544 (B), 22=-544 (B), 23=-544 (B), 24=-544 (B), 25=-544 (B), 26=-544 (B), 27=-544 (B), 28=-544 (B)



February 20,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



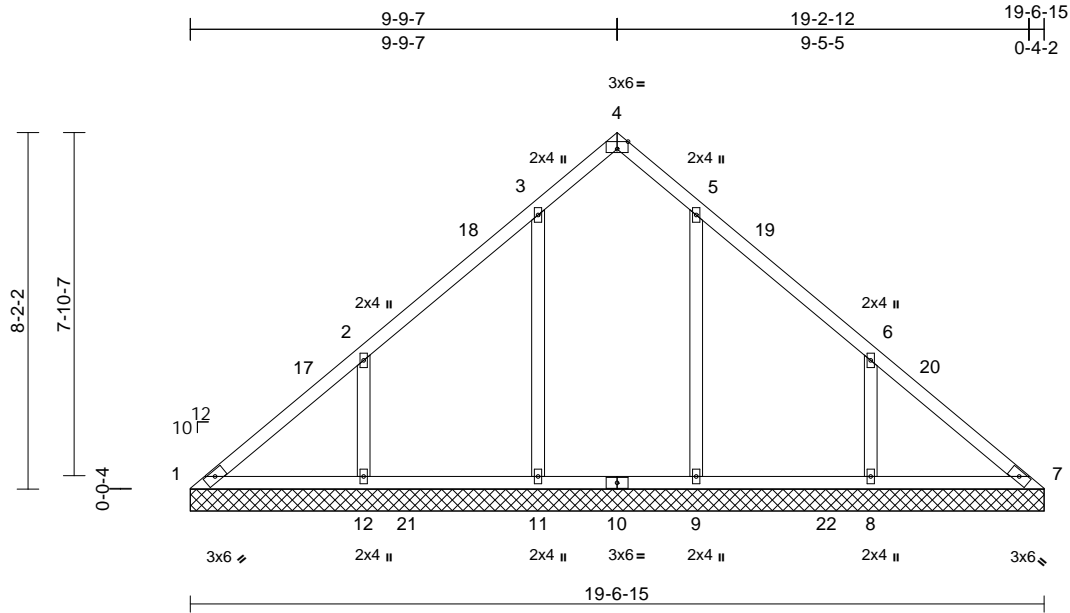
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss V1A	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	I63717076
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:07
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Page: 1



Scale = 1:52.8

Plate Offsets (X, Y): [4:0-3:0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 92 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except* 11-3,9-5:2x4 SP No.2

BRACING

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

REACTIONS

(size) 1=19-6-15, 7=19-6-15, 8=19-6-15, 9=19-6-15, 11=19-6-15, 12=19-6-15
Max Horiz 1=-198 (LC 8)
Max Uplift 8=-191 (LC 13), 9=-138 (LC 13), 11=-142 (LC 12), 12=-197 (LC 12)
Max Grav 1=178 (LC 21), 7=170 (LC 22), 8=427 (LC 20), 9=416 (LC 20), 11=421 (LC 19), 12=433 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

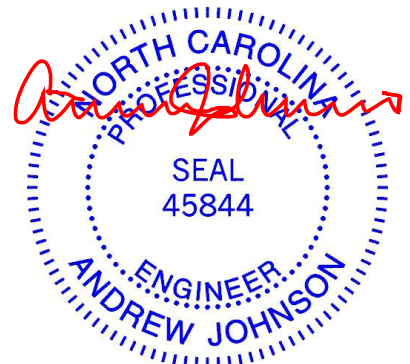
TOP CHORD 1-2=-292/231, 2-3=-147/92, 3-4=-81/32, 4-5=-81/32, 5-6=-141/92, 6-7=-283/231
BOT CHORD 1-12=-202/272, 11-12=-202/272, 9-11=-202/272, 8-9=-202/272, 7-8=-202/272
WEBS 2-12=-297/214, 3-11=-237/167, 6-8=-297/212, 5-9=-231/161

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 9-9-12, Exterior (2) 9-9-12 to 12-9-12, Interior (1) 12-9-12 to 19-7-3 zone; cantilever left exposed ; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 197 lb uplift at joint 12, 142 lb uplift at joint 11, 191 lb uplift at joint 8 and 138 lb uplift at joint 9.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 20, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbccomponents.com)



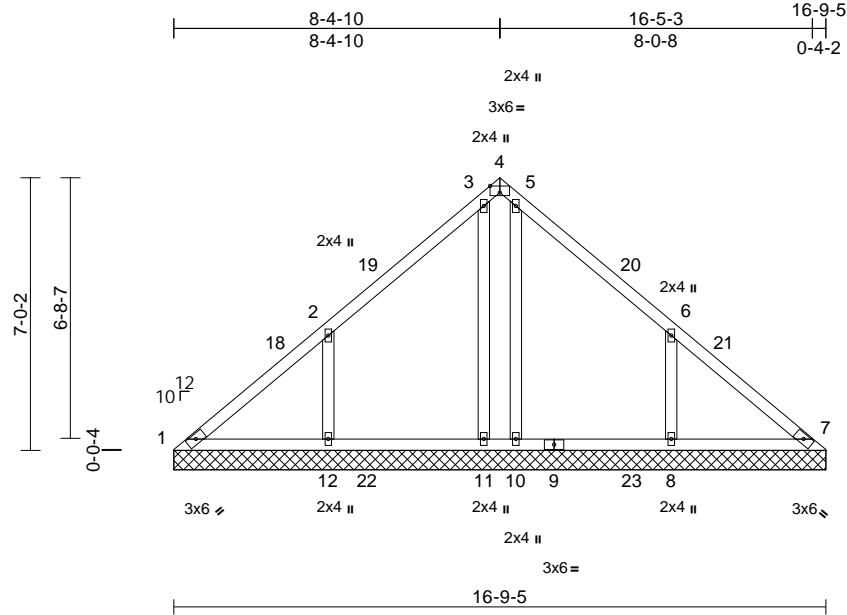
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss V1B	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717077
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:07
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Page: 1



Scale = 1:59.3

Plate Offsets (X, Y): [4:0-3-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 83 lb	FT = 20%

LUMBER

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- OTHERS 2x4 SP No.3 *Except* 11-3,10-5:2x4 SP No.2

BRACING

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

REACTIONS

- (size) 1=16-9-5, 7=16-9-5, 8=16-9-5, 10=16-9-5, 11=16-9-5, 12=16-9-5, 17=16-9-5
- Max Horiz 1=168 (LC 9)
- Max Uplift 1=-69 (LC 8), 8=-205 (LC 13), 11=-65 (LC 9), 12=-212 (LC 12)
- Max Grav 1=88 (LC 11), 7=0 (LC 11), 8=422 (LC 20), 10=339 (LC 20), 11=405 (LC 19), 12=420 (LC 19), 17=0 (LC 11)

FORCES

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=-136/316, 2-3=-47/283, 3-4=-44/127, 4-5=-45/157, 5-6=-19/251, 6-7=-125/247
- BOT CHORD 1-12=-151/82, 11-12=-151/82, 10-11=-151/82, 8-10=-151/82, 7-8=-151/82
- WEBS 2-12=-300/220, 3-11=-305/84, 6-8=-298/219, 5-10=-280/7

NOTES

- 1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 8-4-15, Exterior (2) 8-4-15 to 11-4-15, Interior (1) 11-4-15 to 16-9-10 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) All bearings are assumed to be SP No.2.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 69 lb uplift at joint 1, 212 lb uplift at joint 12, 65 lb uplift at joint 11 and 205 lb uplift at joint 8.
- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 20, 2024

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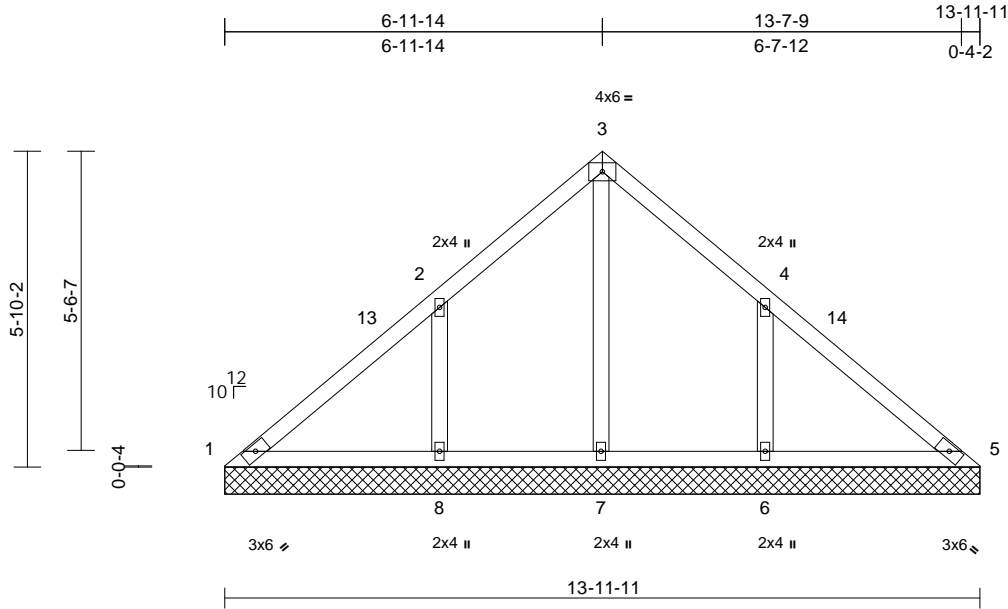
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss V1C	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717078
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:07
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 62 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING

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

REACTIONS

(size) 1=13-11-11, 5=13-11-11,
6=13-11-11, 7=13-11-11,
8=13-11-11
Max Horiz 1=-140 (LC 8)
Max Uplift 1=-21 (LC 8), 6=-189 (LC 13),
8=-192 (LC 12)
Max Grav 1=100 (LC 20), 5=92 (LC 24),
6=368 (LC 20), 7=278 (LC 1),
8=371 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

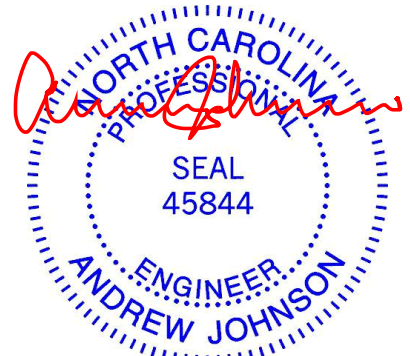
TOP CHORD 1-2=-132/210, 2-3=-22/139, 3-4=-16/132,
4-5=-99/172
BOT CHORD 1-8=-149/131, 7-8=-149/131, 6-7=-148/131,
5-6=-148/131
WEBS 2-8=-270/192, 4-6=-270/191, 3-7=-247/0

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 7-0-2, Exterior (2) 7-0-2 to 10-0-5, Interior (1) 10-0-5 to 14-0-0 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1, 192 lb uplift at joint 8 and 189 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 20,2024

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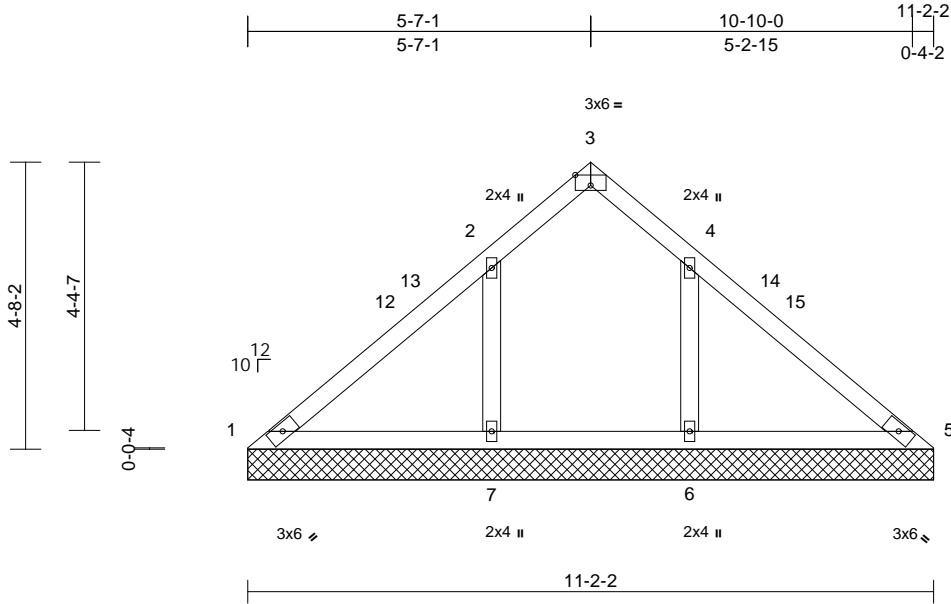
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss V1D	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	I63717079
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84 Components (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:37.5
 Plate Offsets (X, Y): [3:0-3:0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 45 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 OTHERS 2x4 SP No.3

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

REACTIONS (size) 1=11-2-2, 5=11-2-2, 6=11-2-2, 7=11-2-2
 Max Horiz 1=-111 (LC 8)
 Max Uplift 6=-154 (LC 13), 7=-161 (LC 12)
 Max Grav 1=120 (LC 23), 5=120 (LC 24), 6=350 (LC 20), 7=358 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-152/142, 2-3=-51/19, 3-4=-51/18, 4-5=-148/142
 BOT CHORD 1-7=-138/154, 6-7=-138/154, 5-6=-138/154
 WEBS 2-7=-257/163, 4-6=-257/157

NOTES
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-7-6, Exterior (2) 5-7-6 to 8-7-6, Interior (1) 8-7-6 to 11-2-7 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 4) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
 - 5) Gable requires continuous bottom chord bearing.
 - 6) Gable studs spaced at 4-0-0 oc.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 9) All bearings are assumed to be SP No.2 .
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 161 lb uplift at joint 7 and 154 lb uplift at joint 6.
 - 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



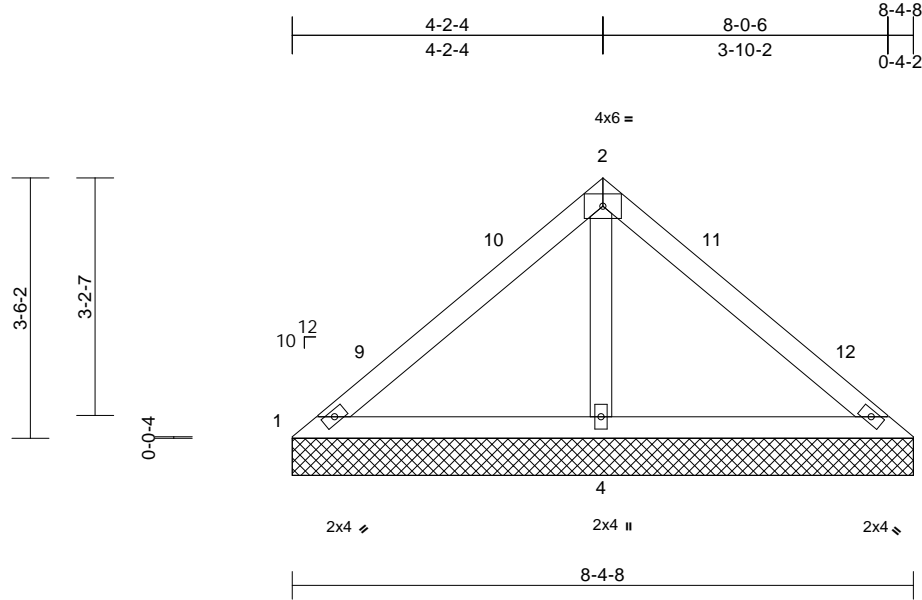
February 20,2024

Job 2400183-08042	Truss V1E	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717080
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:08
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 32 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 8-4-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=8-4-8, 3=8-4-8, 4=8-4-8
Max Horiz 1=82 (LC 9)
Max Uplift 1=-22 (LC 24), 3=-20 (LC 23), 4=-160 (LC 12)
Max Grav 1=61 (LC 23), 3=64 (LC 24), 4=614 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-109/255, 2-3=-107/250
BOT CHORD 1-4=-231/152, 3-4=-228/150
WEBS 2-4=-450/194

- Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be SP No.2 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1, 20 lb uplift at joint 3 and 160 lb uplift at joint 4.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 4-2-9, Exterior (2) 4-2-9 to 7-2-9, Interior (1) 7-2-9 to 8-4-13 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.



February 20,2024

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ENGINEERING BY
TRENCO
A MiTek Affiliate

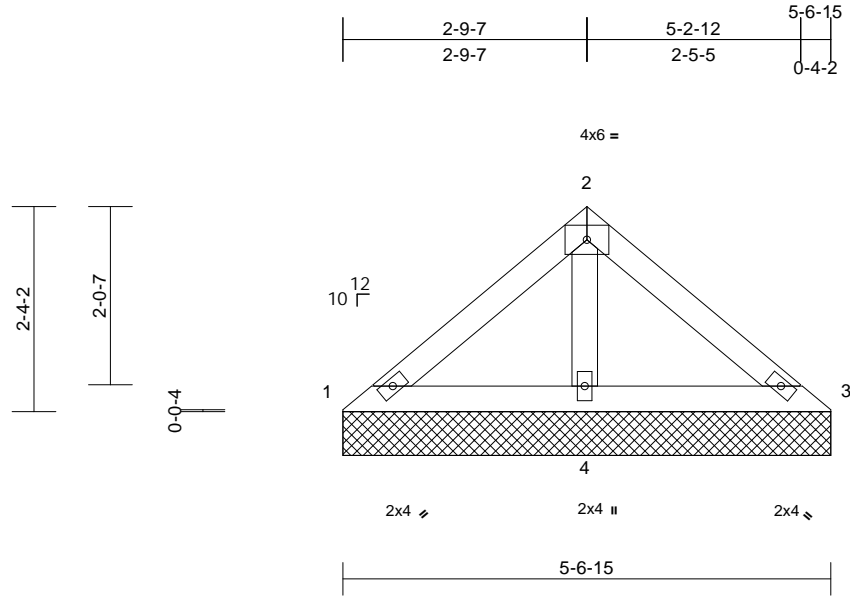
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss V1F	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717081
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:08
ID:xHKmSXVijj4zzZlrNiVMOzo2fZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:26.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 20 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=5-6-15, 3=5-6-15, 4=5-6-15
Max Horiz 1=-53 (LC 8)
Max Uplift 3=-10 (LC 13), 4=-78 (LC 12)
Max Grav 1=64 (LC 23), 3=66 (LC 24), 4=346 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-55/119, 2-3=-59/113
BOT CHORD 1-4=-109/81, 3-4=-106/80
WEBS 2-4=-225/91

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 9) All bearings are assumed to be SP No.2 .
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 3 and 78 lb uplift at joint 4.
 - 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 20,2024

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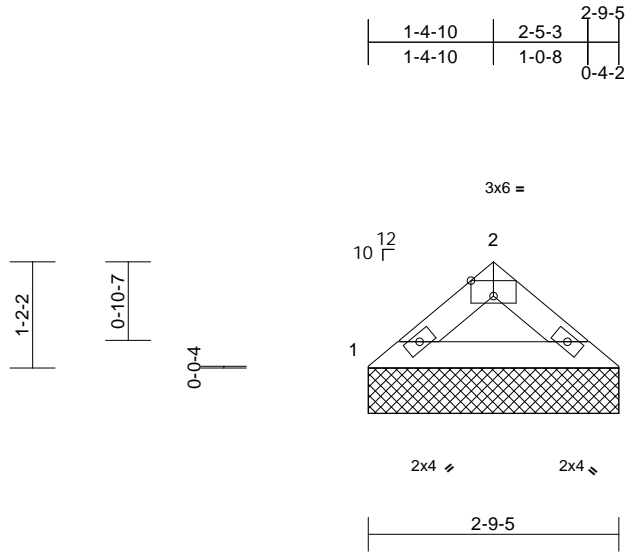
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	MCLEAN RESIDENCE	163717082
2400183-08042	V1G	Valley	1	1	Job Reference (optional)	

84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:08
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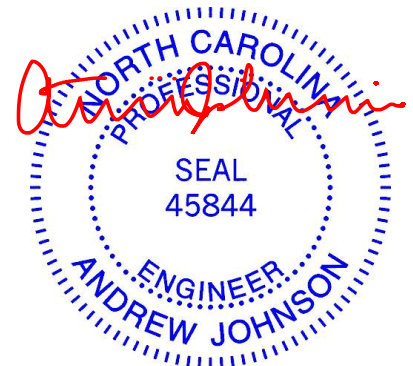


Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 8 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
BRACING
 TOP CHORD Structural wood sheathing directly applied or 2-9-5 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS (size) 1=2-9-5, 3=2-9-5
 Max Horiz 1=24 (LC 9)
 Max Uplift 1=20 (LC 12), 3=20 (LC 13)
 Max Grav 1=111 (LC 1), 3=111 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-141/42, 2-3=-141/42
 BOT CHORD 1-3=-24/109

- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 9) All bearings are assumed to be SP No.2 .
 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 20 lb uplift at joint 3.
 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
LOAD CASE(S) Standard

- NOTES**
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left exposed ; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 4) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
 5) Gable requires continuous bottom chord bearing.
 6) Gable studs spaced at 4-0-0 oc.
 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



February 20, 2024

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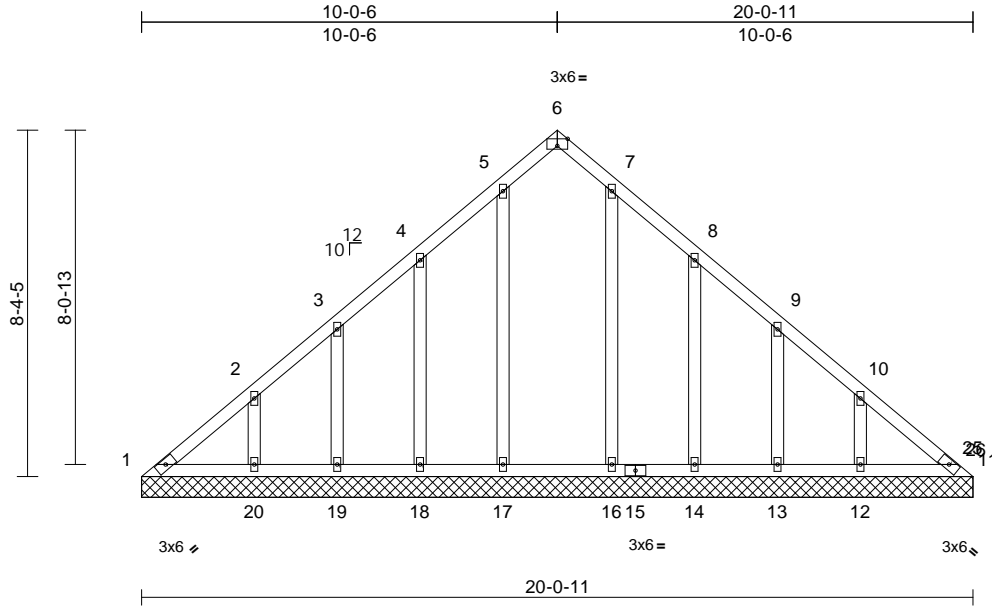
818 Soundside Road
 Edenton, NC 27932

Job 2400183-08042	Truss V2A	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717083
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:08
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Page: 1



Scale = 1:55.6

Plate Offsets (X, Y): [6:0-3-0,Edge], [7:0-0-0,Edge], [8:0-0-0,Edge], [9:0-0-0,Edge], [10:0-0-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.01	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 117 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except* 17-5,16-7:2x4 SP No.2

WEBS
5-17=-139/54, 7-16=-123/40, 4-18=-159/122,
3-19=-135/105, 2-20=-164/105,
8-14=-158/126, 9-13=-136/106,
10-12=-158/100

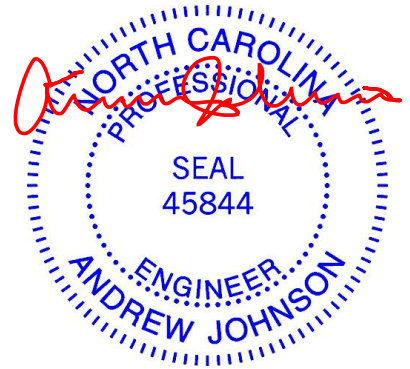
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
LOAD CASE(S) Standard

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

REACTIONS (size)
1=20-0-11, 11=20-0-11,
12=20-0-11, 13=20-0-11,
14=20-0-11, 16=20-0-11,
17=20-0-11, 18=20-0-11,
19=20-0-11, 20=20-0-11
Max Horiz 1=201 (LC 9)
Max Uplift 1=-23 (LC 8), 11=-8 (LC 11),
12=-80 (LC 13), 13=-96 (LC 13),
14=-114 (LC 13), 16=-26 (LC 13),
17=-40 (LC 12), 18=-111 (LC 12),
19=-93 (LC 12), 20=-92 (LC 12)
Max Grav 1=156 (LC 21), 11=132 (LC 22),
12=231 (LC 20), 13=160 (LC 20),
14=170 (LC 20), 16=218 (LC 20),
17=234 (LC 19), 18=166 (LC 19),
19=156 (LC 19), 20=245 (LC 19)

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) 0-0-0 to 2-8-10, Exterior (2) 2-8-10 to 10-0-6, Corner (3) 10-0-6 to 13-0-6, Exterior (2) 13-0-6 to 19-7-14 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) All bearings are assumed to be SP No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1, 8 lb uplift at joint 11, 40 lb uplift at joint 17, 26 lb uplift at joint 16, 111 lb uplift at joint 18, 93 lb uplift at joint 19, 92 lb uplift at joint 20, 114 lb uplift at joint 14, 96 lb uplift at joint 13 and 80 lb uplift at joint 12.

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-276/193, 2-3=-195/118, 3-4=-115/78,
4-5=-89/55, 5-6=-76/62, 6-7=-76/62,
7-8=-68/36, 8-9=-102/57, 9-10=-178/118,
10-11=-257/193
BOT CHORD 1-20=-164/233, 19-20=-164/233,
18-19=-164/233, 17-18=-164/233,
16-17=-164/233, 14-16=-164/233,
13-14=-164/233, 12-13=-164/233,
11-12=-164/233



February 20,2024

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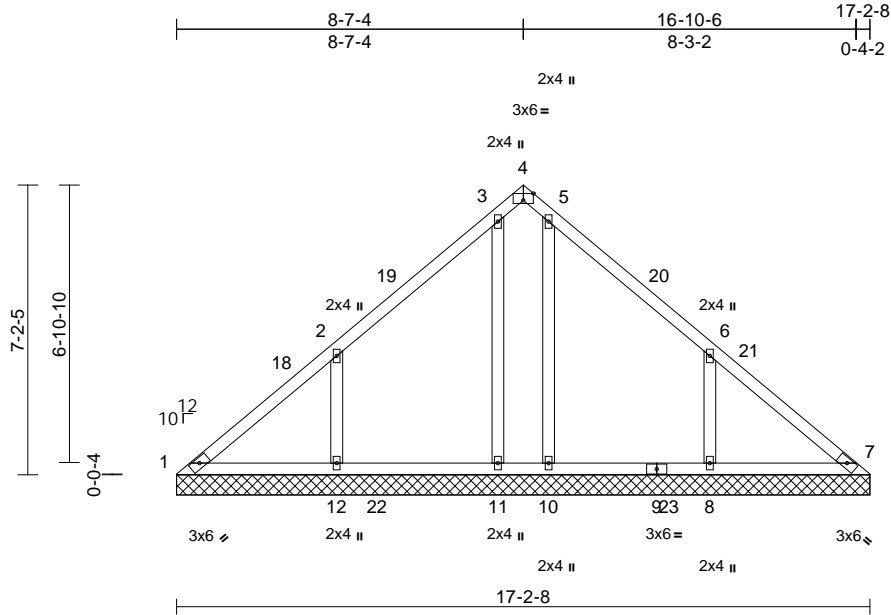
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss V2B	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717084
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:09
ID:wBuWT6JjnZLaEER8GO13fgzo9fp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:57.2

Plate Offsets (X, Y): [4:0-3-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 84 lb	FT = 20%

LUMBER

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- OTHERS 2x4 SP No.3 *Except* 11-3,10-5:2x4 SP No.2

BRACING

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

REACTIONS

- (size) 1=17-2-8, 7=17-2-8, 8=17-2-8, 10=17-2-8, 11=17-2-8, 12=17-2-8, 17=17-2-8
- Max Horiz 1=173 (LC 9)
- Max Uplift 1=-71 (LC 8), 8=-205 (LC 13), 11=-55 (LC 9), 12=-215 (LC 12)
- Max Grav 1=92 (LC 11), 7=0 (LC 11), 8=424 (LC 20), 10=345 (LC 20), 11=413 (LC 19), 12=420 (LC 19), 17=0 (LC 11)

FORCES

(lb) - Maximum Compression/Maximum Tension

- TOP CHORD 1-2=-142/318, 2-3=-53/286, 3-4=-49/134, 4-5=-51/154, 5-6=-19/250, 6-7=-126/246
- BOT CHORD 1-12=-152/84, 11-12=-152/84, 10-11=-152/84, 8-10=-152/84, 7-8=-152/84
- WEBS 2-12=-304/224, 3-11=-310/74, 6-8=-300/223, 5-10=-280/0

NOTES

- 1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 8-7-9, Exterior (2) 8-7-9 to 11-7-9, Interior (1) 11-7-9 to 16-10-5 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) All bearings are assumed to be SP No.2.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 1, 215 lb uplift at joint 12, 55 lb uplift at joint 11 and 205 lb uplift at joint 8.
- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 20, 2024

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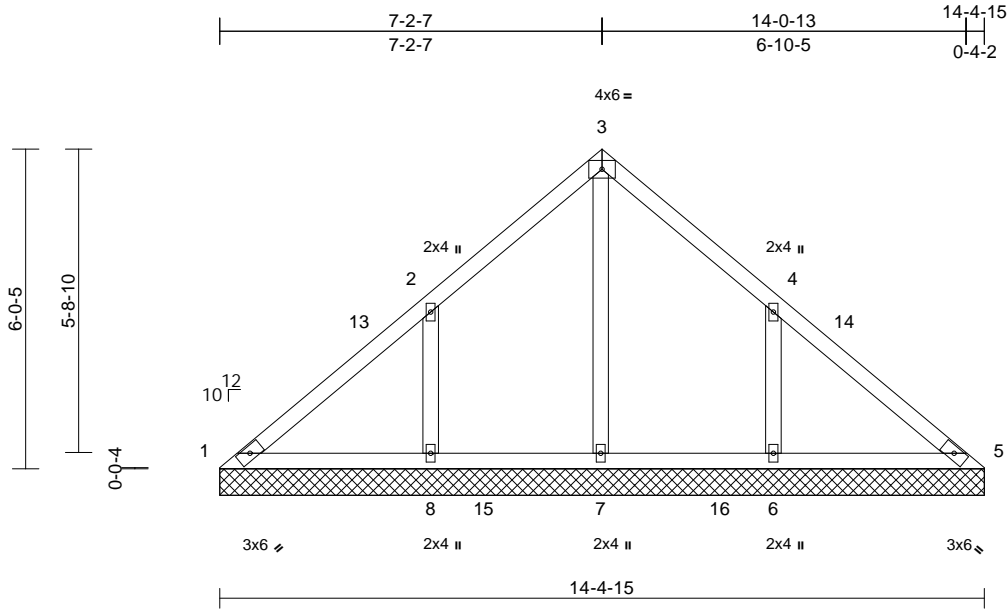
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss V2C	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717085
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:09
ID:wBuWT6JjnZLaEER8GO13fgzo9fp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:43.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 64 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING

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

REACTIONS

(size) 1=14-4-15, 5=14-4-15, 6=14-4-15, 7=14-4-15, 8=14-4-15
Max Horiz 1=-144 (LC 8)
Max Uplift 1=-23 (LC 8), 6=-193 (LC 13), 8=-197 (LC 12)
Max Grav 1=106 (LC 20), 5=94 (LC 24), 6=394 (LC 20), 7=379 (LC 19), 8=395 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

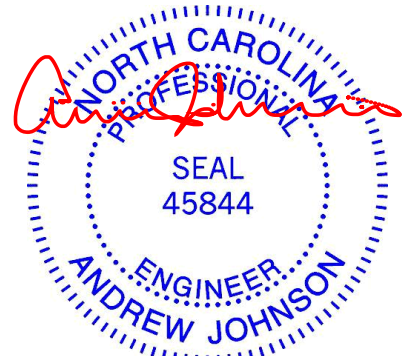
TOP CHORD 1-2=-135/203, 2-3=-31/146, 3-4=-26/128, 4-5=-101/163
BOT CHORD 1-8=-144/132, 7-8=-144/132, 6-7=-144/132, 5-6=-144/132
WEBS 2-8=-278/199, 4-6=-278/197, 3-7=-253/0

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 7-2-12, Exterior (2) 7-2-12 to 10-5-8, Interior (1) 10-5-8 to 14-5-3 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1, 197 lb uplift at joint 8 and 193 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 20, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



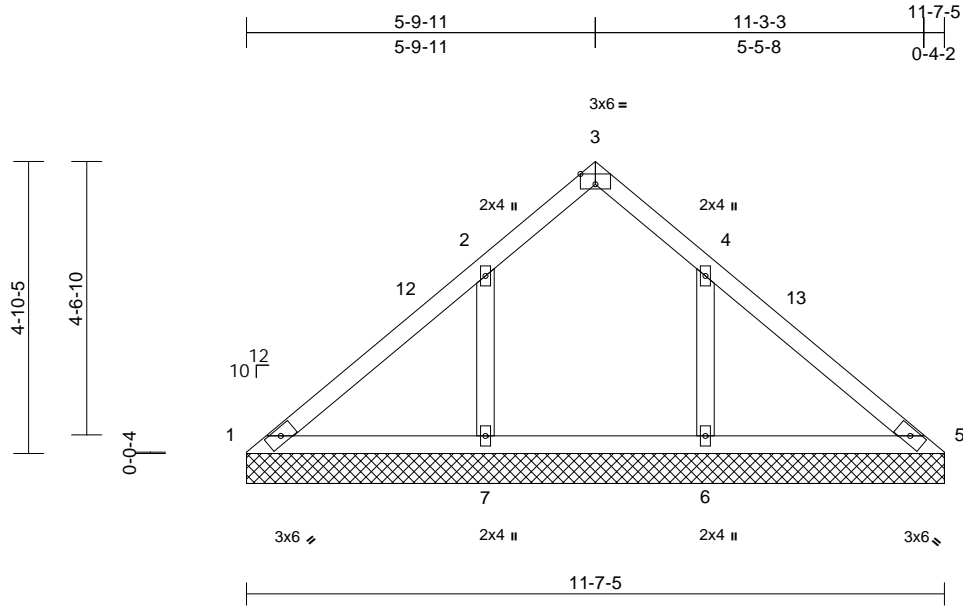
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss V2D	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	I63717086
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:09
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Page: 1



Scale = 1:38.3

Plate Offsets (X, Y): [3:0-3:0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 47 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING

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

REACTIONS

(size) 1=11-7-5, 5=11-7-5, 6=11-7-5, 7=11-7-5
Max Horiz 1=-115 (LC 8)
Max Uplift 6=-155 (LC 13), 7=-162 (LC 12)
Max Grav 1=133 (LC 1), 5=133 (LC 1), 6=354 (LC 20), 7=362 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-167/124, 2-3=-74/26, 3-4=-74/26, 4-5=-163/124
BOT CHORD 1-7=-124/165, 6-7=-124/153, 5-6=-124/153
WEBS 2-7=-257/166, 4-6=-257/161

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-9-15, Exterior (2) 5-9-15 to 8-9-15, Interior (1) 8-9-15 to 11-7-10 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 162 lb uplift at joint 7 and 155 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 20, 2024

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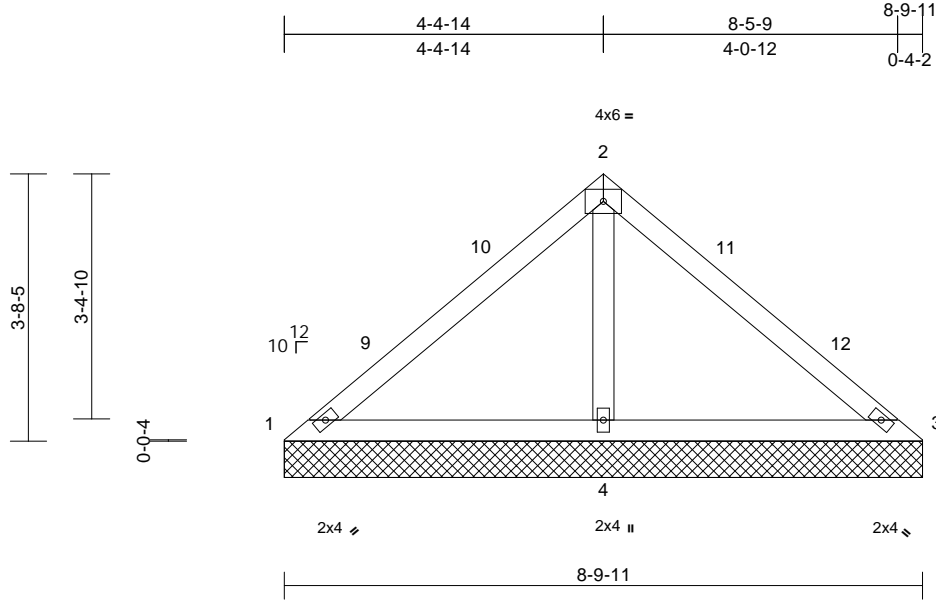
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss V2E	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717087
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:10
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 33 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

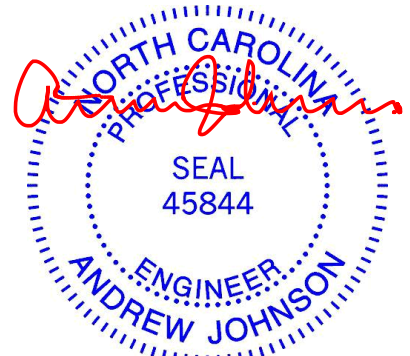
BRACING
TOP CHORD Structural wood sheathing directly applied or 8-9-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=8-9-11, 3=8-9-11, 4=8-9-11
Max Horiz 1=-87 (LC 8)
Max Uplift 1=-28 (LC 24), 3=-28 (LC 23), 4=-176 (LC 12)
Max Grav 1=60 (LC 23), 3=60 (LC 24), 4=662 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-121/278, 2-3=-120/278
BOT CHORD 1-4=-252/163, 3-4=-252/163
WEBS 2-4=-491/211

- Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be SP No.2 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1, 28 lb uplift at joint 3 and 176 lb uplift at joint 4.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 4-5-3, Exterior (2) 4-5-3 to 7-5-3, Interior (1) 7-5-3 to 8-10-0 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.



February 20,2024

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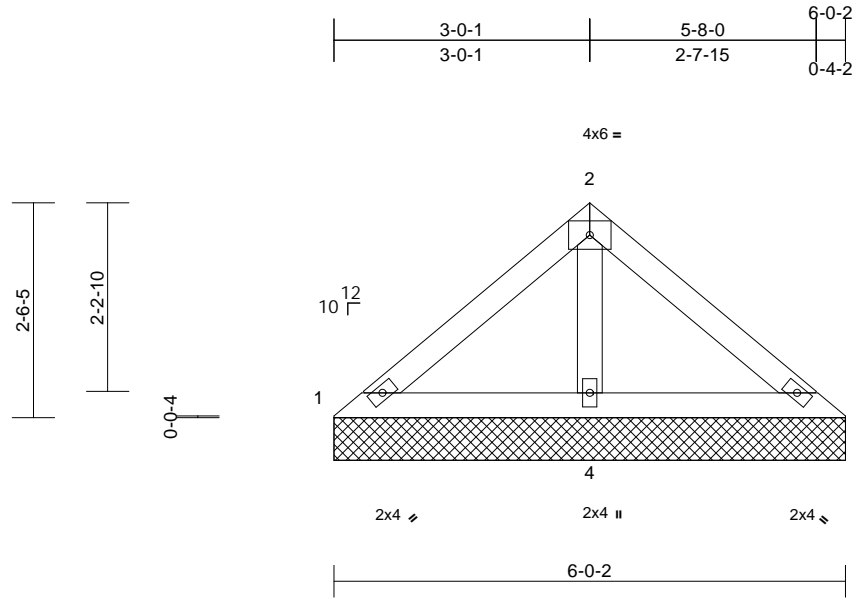
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss V2F	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717088
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:10
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 22 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=6-0-2, 3=6-0-2, 4=6-0-2
Max Horiz 1=-58 (LC 8)
Max Uplift 3=-8 (LC 13), 4=-89 (LC 12)
Max Grav 1=66 (LC 23), 3=66 (LC 24), 4=383 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-57/136, 2-3=-57/132
BOT CHORD 1-4=-124/92, 3-4=-124/92
WEBS 2-4=-256/106

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be SP No.2 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 3 and 89 lb uplift at joint 4.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 20, 2024

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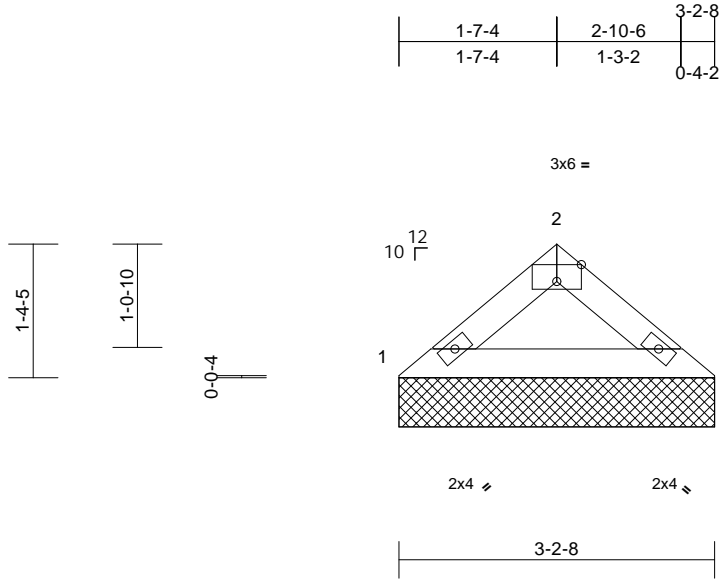
818 Soundside Road
Edenton, NC 27932

Job 2400183-08042	Truss V2G	Truss Type Valley	Qty 1	Ply 1	MCLEAN RESIDENCE Job Reference (optional)	163717089
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Mon Feb 19 11:43:10
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Page: 1



Scale = 1:23.4
Plate Offsets (X, Y): [2:0-3-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

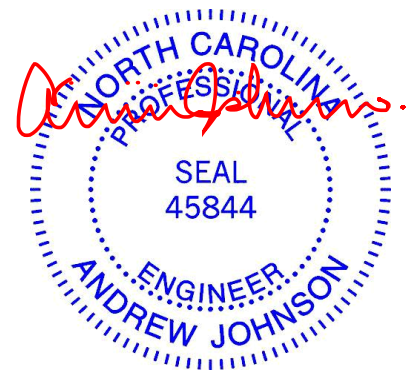
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-2-8, 3=3-2-8
Max Horiz 1=-29 (LC 8)
Max Uplift 1=-23 (LC 12), 3=-23 (LC 13)
Max Grav 1=128 (LC 1), 3=128 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-167/50, 2-3=-167/50
BOT CHORD 1-3=-30/130

- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SP No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 23 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



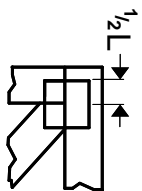
February 20,2024

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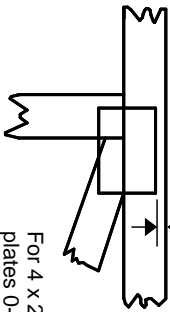
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818 Soundside Road
Edenton, NC 27932

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

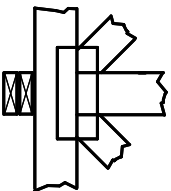
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



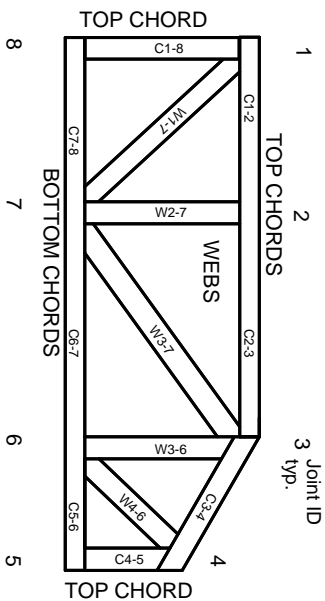
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: 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

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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/TP1 section 6.3. These truss designs rely on lumber values established by others.

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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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

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MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023