

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 22030115
DRB GROUP - 113 FaNC

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

Pages or sheets covered by this seal: I51257104 thru I51257130

My license renewal date for the state of North Carolina is December 31, 2022.

North Carolina COA: C-0844



April 8, 2022

Gilbert, Eric

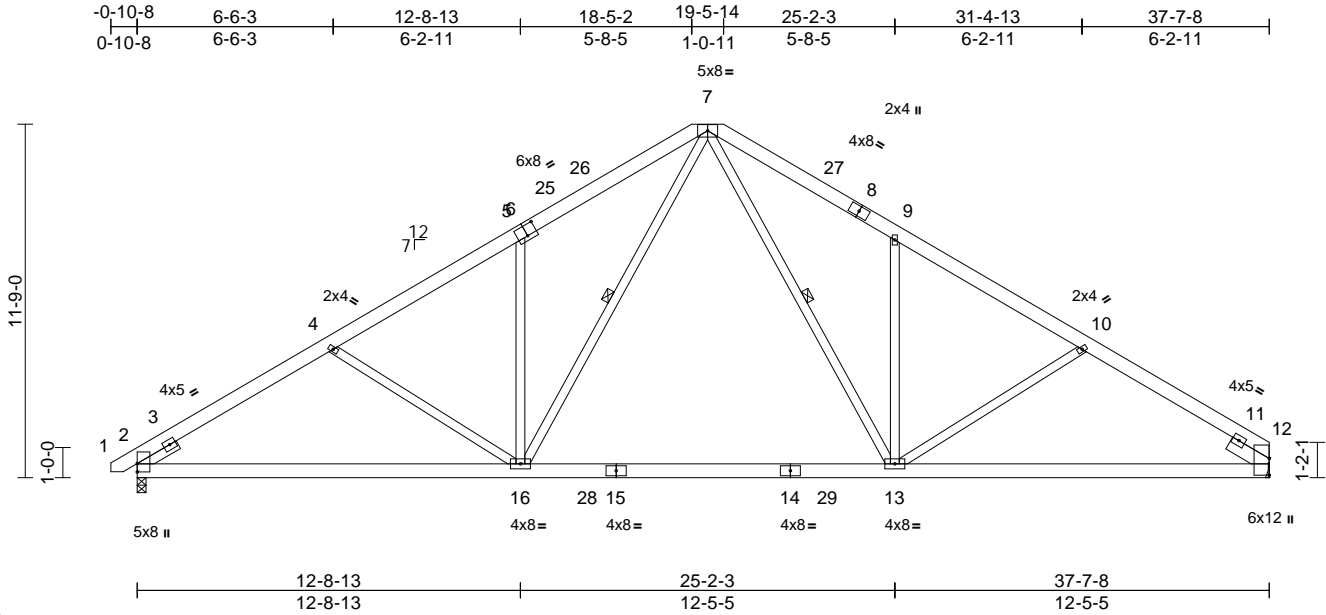
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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

Job 22030115	Truss A01	Truss Type Common	Qty 4	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257104
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:76.6
Plate Offsets (X, Y): [6:0-4-0,0-4-4], [12:0-6-11,0-0-2]

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	0.58	Vert(LL)	-0.32	13-16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.49	13-16	>916	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.08	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 280 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 16-7,13-7:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-16, 7-13

REACTIONS (lb/size) 2=1546/0-3-8, 12=1505/
Mechanical
Max Horiz 2=262 (LC 11)
Max Uplift 2=-151 (LC 14), 12=-136 (LC 15)
Max Grav 2=1771 (LC 24), 12=1731 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-4=-2567/258, 4-5=-2299/226, 5-7=-2335/366, 7-9=-2302/363, 9-10=-2245/224, 10-12=-2493/250
BOT CHORD 2-16=-306/2311, 13-16=-25/1484, 12-13=-132/2036
WEBS 5-16=-479/249, 7-16=-236/1205, 4-16=-297/201, 7-13=-232/1149, 9-13=-492/250, 10-13=-241/193

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-1 to 3-1-2, Interior (1) 3-1-2 to 15-2-6, Exterior(2R) 15-2-6 to 22-8-10, Interior (1) 22-8-10 to 33-10-6, Exterior(2E) 33-10-6 to 37-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 12.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 8, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



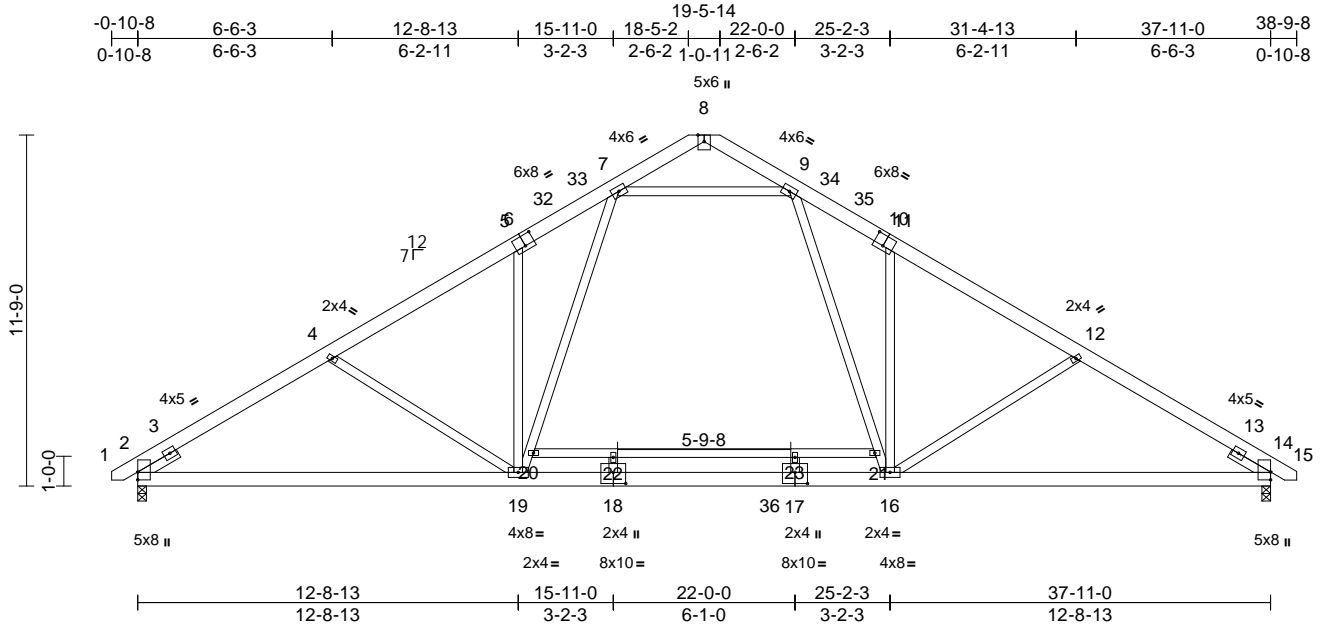
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss A02	Truss Type Common	Qty 5	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257105
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:77.1

Plate Offsets (X, Y): [6:0-4-0,0-4-4], [10:0-4-0,0-4-4], [17:0-5-0,0-4-8], [18:0-5-0,0-4-8]

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	0.51	Vert(LL)	-0.21	19-26	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.45	17-18	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.08	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 301 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 20-21:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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

REACTIONS (lb/size) 2=1659/0-3-8, 14=1655/0-3-8
Max Horiz 2=-265 (LC 12)
Max Uplift 2=-49 (LC 14), 14=-53 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-4=-2496/61, 4-5=-2201/20, 5-7=-2242/153, 7-8=-309/104, 8-9=-313/100, 9-11=-2228/166, 11-12=-2193/28, 12-14=-2489/69, 14-15=0/20
BOT CHORD 2-19=-178/2064, 16-19=0/1494, 14-16=-25/2049
WEBS 5-19=-542/279, 19-20=-146/1054, 7-20=-130/1060, 4-19=-292/238, 9-21=-153/1036, 16-21=-167/1031, 11-16=-532/288, 12-16=-295/237, 20-22=-3/72, 22-23=-3/72, 21-23=-3/72, 18-22=0/34, 17-23=0/32, 7-9=-1377/90

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-1 to 3-1-7, Interior (1) 3-1-7 to 15-2-0, Exterior(2R) 15-2-0 to 22-9-0, Interior (1) 22-9-0 to 34-9-9, Exterior(2E) 34-9-9 to 38-7-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 18-8-0 from left end, supported at two points, 5-0-0 apart.
- 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 14. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 8, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



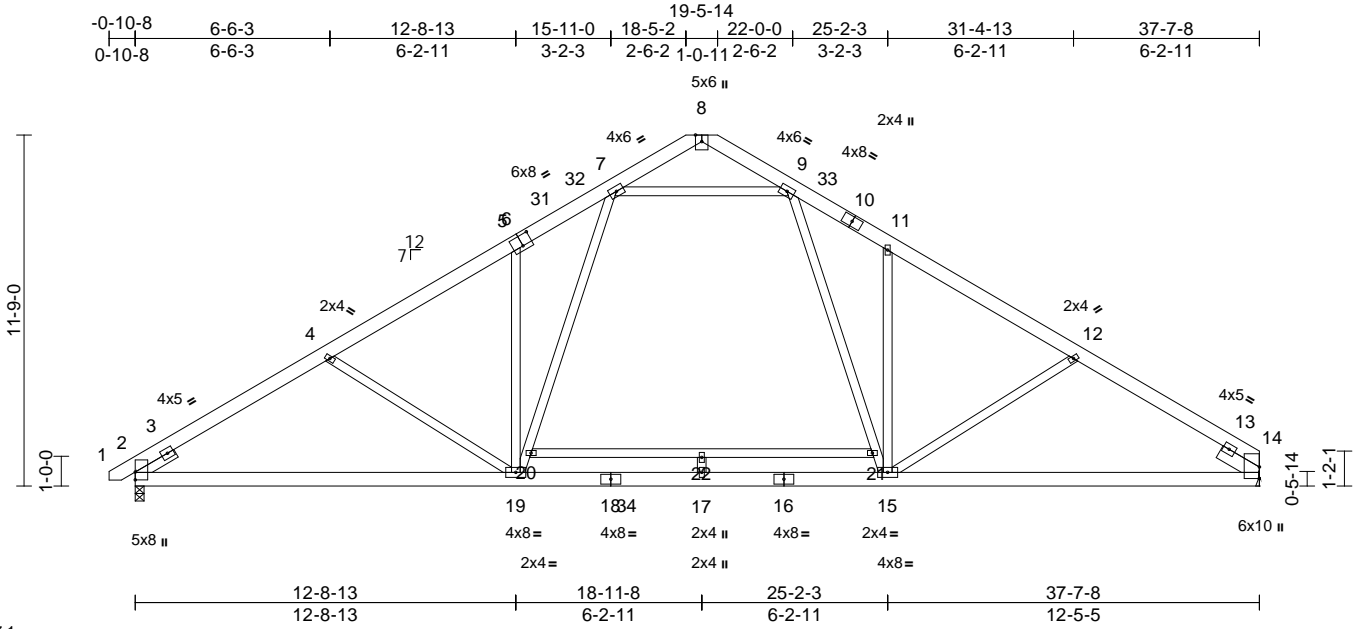
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss A02A	Truss Type Common	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257106
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:77.1
Plate Offsets (X, Y): [6:0-4-0,0-4-4], [14:0-4-11,0-0-2]

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	0.70	Vert(LL)	-0.21	19-25	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.46	17-19	>974	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.09	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 298 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 20-21:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=1644/0-3-8, 14=1606/
Mechanical
Max Horiz 2=262 (LC 11)
Max Uplift 2=-52 (LC 14), 14=-34 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-4=-2470/67, 4-5=-2174/24, 5-7=-2222/162, 7-8=-307/101, 8-9=-317/103, 9-11=-2197/157, 11-12=-2147/22, 12-14=-2403/61
BOT CHORD 2-19=-188/2038, 17-19=0/1468, 15-17=0/1468, 14-15=-22/1954
WEBS 5-19=-548/285, 19-20=-157/1067, 7-20=-145/1061, 4-19=-293/237, 9-21=-138/1013, 15-21=-148/1019, 11-15=-552/282, 12-15=-226/235, 20-22=-1/73, 21-22=-1/73, 17-22=0/40, 7-9=-1351/89

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-1 to 3-1-7, Interior (1) 3-1-7 to 15-2-0, Exterior(2R) 15-2-0 to 22-9-0, Interior (1) 22-9-0 to 33-10-0, Exterior(2E) 33-10-0 to 37-7-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 18-11-8 from left end, supported at two points, 5-0-0 apart.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 14.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

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



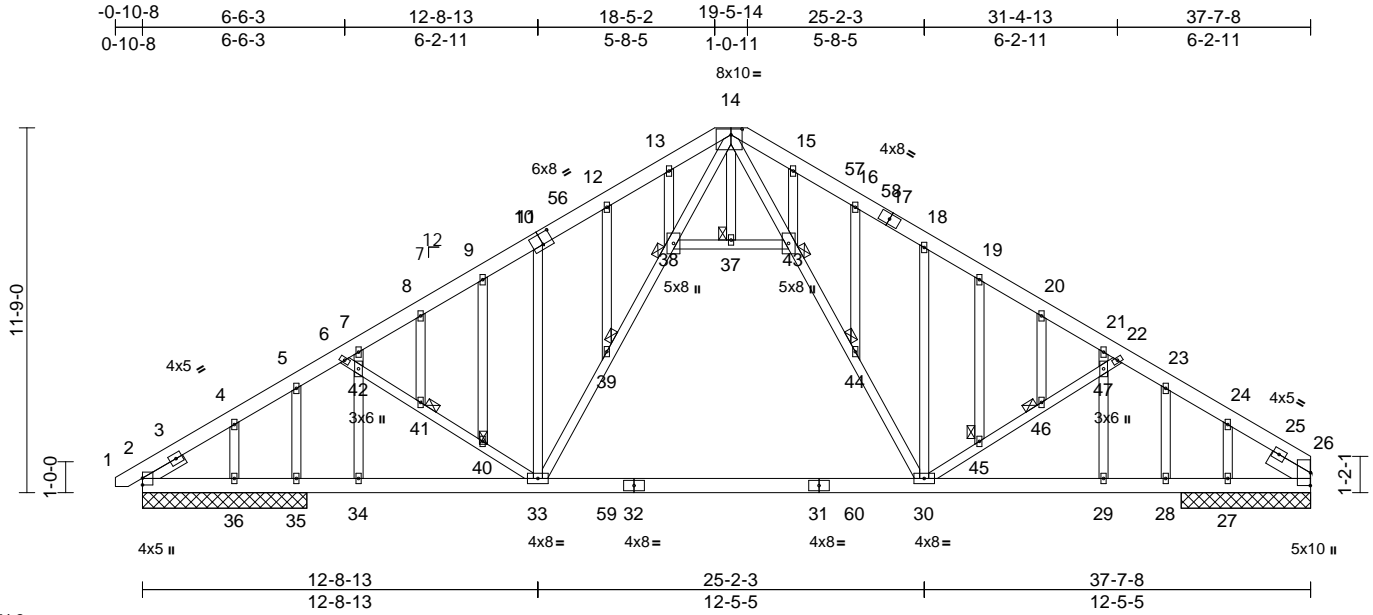
April 8, 2022

Job 22030115	Truss A03	Truss Type Common Structural Gable	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257107
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Page: 1



Scale = 1:74.2

Plate Offsets (X, Y): [11:0-4-0,0-4-4], [14:0-4-4,0-2-4], [26:0-4-15,0-0-2]

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	0.48	Vert(LL)	-0.27	30-33	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.44	30-33	>824	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.06	26	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 363 lb	FT = 20%

LUMBER	TOP CHORD	1-2=0/20, 2-4=-664/78, 4-5=-523/102, 5-6=-940/120, 6-7=-1296/108, 7-8=-1512/146, 8-9=-1468/163, 9-10=-1403/177, 10-12=-1528/263, 12-13=-1489/279, 13-14=-1478/334, 14-15=-1742/358, 15-16=-1836/328, 16-18=-1857/309, 18-19=-1726/197, 19-20=-1766/181, 20-21=-1803/164, 21-22=-1753/138, 22-23=-1838/184, 23-24=-1903/175, 24-26=-1883/116	2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-1 to 2-11-8, Interior (1) 2-11-8 to 14-11-8, Exterior(2R) 14-11-8 to 22-6-6, Interior (1) 22-6-6 to 33-10-6, Exterior(2E) 33-10-6 to 37-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
TOP CHORD	2x6 SP No.2	5-6=-940/120, 6-7=-1296/108, 7-8=-1512/146, 8-9=-1468/163, 9-10=-1403/177, 10-12=-1528/263, 12-13=-1489/279, 13-14=-1478/334, 14-15=-1742/358, 15-16=-1836/328, 16-18=-1857/309, 18-19=-1726/197, 19-20=-1766/181, 20-21=-1803/164, 21-22=-1753/138, 22-23=-1838/184, 23-24=-1903/175, 24-26=-1883/116	2) 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.
BOT CHORD	2x6 SP No.2	2-36=-115/653, 35-36=-115/653, 34-35=-115/653, 33-34=-115/653, 30-33=0/1113, 29-30=-67/1541, 28-29=-67/1541, 27-28=-67/1541, 26-27=-67/1541	4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
WEBS	2x4 SP No.3 *Except* 33-14,30-14:2x4 SP No.2	10-33=-464/212, 33-39=-144/524, 38-39=-157/563, 14-38=-221/638, 6-42=0/867, 41-42=0/864, 40-41=0/857, 33-40=0/878, 14-43=-248/1064, 43-44=-203/1134, 30-44=-188/1064, 18-30=-412/205, 30-45=-147/144, 45-46=-141/138, 46-47=-128/129, 22-47=-124/141, 14-37=-12/29, 13-38=-154/87, 12-39=-44/14, 9-40=0/46, 8-41=-24/17, 7-42=-514/61, 34-42=-518/82, 5-35=-998/84, 4-36=0/267, 15-43=-20/118, 16-44=-79/17, 19-45=-11/10, 20-46=-26/17, 21-47=-139/28, 29-47=-128/49, 23-28=-16/33, 24-27=-127/92, 37-38=-85/45, 37-43=-83/44	5) Unbalanced snow loads have been considered for this design.
OTHERS	2x4 SP No.3		
SLIDER	Left 2x4 SP No.3 -- 1-6-0, Right 2x6 SP No.2 -- 1-6-0		
BRACING	TOP CHORD	Structural wood sheathing directly applied or 4-6-15 oc purlins.	
	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
	JOINTS	1 Brace at Jt(s): 37, 38, 39, 40, 41, 43, 44, 45, 46	
REACTIONS	(lb/size)	2=606/5-3-8, 26=1099/4-2-0, 27=250/4-2-0, 35=1643/5-3-8, 36=548/5-3-8, 48=606/5-3-8, 52=1099/4-2-0 Max Horiz 2=263 (LC 11), 48=263 (LC 11) Max Uplift 2=-39 (LC 15), 26=-66 (LC 15), 27=-74 (LC 15), 35=-153 (LC 14), 36=-614 (LC 25), 48=-39 (LC 15), 52=-66 (LC 15) Max Grav 2=639 (LC 25), 26=1215 (LC 25), 27=355 (LC 25), 35=1935 (LC 24), 36=21 (LC 15), 48=639 (LC 25), 52=1215 (LC 25)	
FORCES	(lb) - Maximum Compression/Maximum Tension		
	NOTES	1) Unbalanced roof live loads have been considered for this design.	



April 8, 2022

Continued on page 2

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818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss A03	Truss Type Common Structural Gable	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257107
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Apr 07 21:43:07
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Page: 2

- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



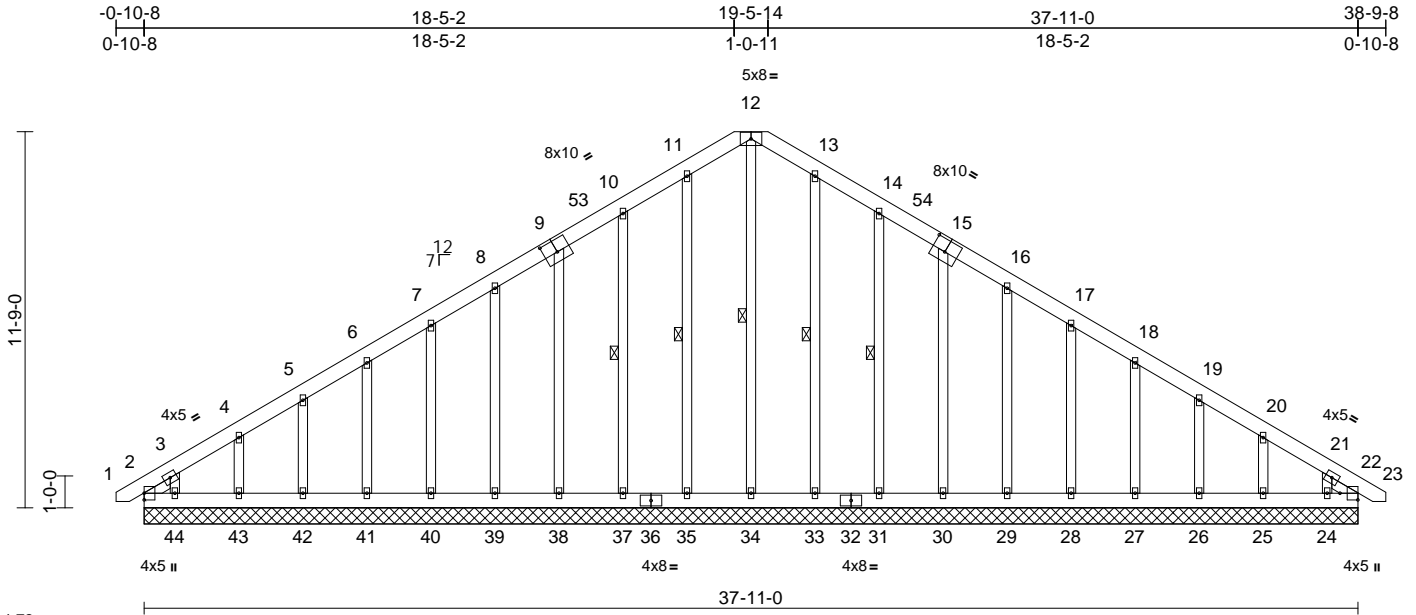
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss A04	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257108
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Apr 07 21:43:08
ID:hussyWcpnt6lYOYkURLML2yGMJ9-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:72
Plate Offsets (X, Y): [9:0-5-0,0-4-8], [15:0-5-0,0-4-8], [22:Edge,0-6-12]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.01	22	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 358 lb											FT = 20%

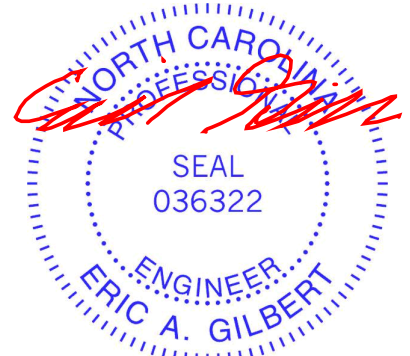
LUMBER		Max Grav	WEBS
TOP CHORD	2x6 SP No.2	2=233 (LC 14), 22=172 (LC 15), 24=154 (LC 25), 25=165 (LC 25), 26=161 (LC 25), 27=161 (LC 25), 28=162 (LC 25), 29=154 (LC 25), 30=164 (LC 22), 31=228 (LC 22), 33=232 (LC 22), 34=191 (LC 27), 35=232 (LC 21), 37=228 (LC 21), 38=164 (LC 21), 39=154 (LC 24), 40=162 (LC 24), 41=161 (LC 24), 42=161 (LC 24), 43=165 (LC 24), 44=186 (LC 24), 45=233 (LC 14), 49=172 (LC 15)	12-34=161/47, 11-35=193/47, 10-37=189/83, 9-38=125/73, 8-39=115/67, 7-40=123/73, 6-41=123/72, 5-42=122/71, 4-43=128/78, 3-44=114/129, 13-33=193/39, 14-31=189/86, 15-30=125/74, 16-29=115/66, 17-28=123/73, 18-27=123/72, 19-26=122/71, 20-25=127/77, 21-24=92/109
BOT CHORD	2x6 SP No.2		
OTHERS	2x4 SP No.3 *Except* 34-12:2x4 SP No.2		
SLIDER	Left 2x4 SP No.3 -- 0-11-6, Right 2x4 SP No.3 -- 0-11-6		

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 12-34, 11-35, 10-37, 13-33, 14-31

REACTIONS	(lb/size)
Max Horiz	2=-260 (LC 12), 45=-260 (LC 12)
Max Uplift	2=-149 (LC 12), 22=-58 (LC 13), 24=-132 (LC 15), 25=-50 (LC 15), 26=-49 (LC 15), 27=-49 (LC 15), 28=-49 (LC 15), 29=-43 (LC 15), 30=-50 (LC 15), 31=-63 (LC 15), 33=-15 (LC 15), 35=-24 (LC 14), 37=-60 (LC 14), 38=-50 (LC 14), 39=-43 (LC 14), 40=-49 (LC 14), 41=-49 (LC 14), 42=-49 (LC 14), 43=-50 (LC 14), 44=-161 (LC 14), 45=-149 (LC 12), 49=-58 (LC 13)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/20, 2-3=-182/142, 3-4=-222/186, 4-5=-187/167, 5-6=-163/150, 6-7=-149/139, 7-8=-136/140, 8-10=-122/193, 10-11=-135/225, 11-12=-149/245, 12-13=-149/245, 13-14=-135/216, 14-16=-105/165, 16-17=-62/78, 17-18=-72/49, 18-19=-82/55, 19-20=-108/72, 20-21=-158/91, 21-22=-138/77, 22-23=0/20
BOT CHORD	2-44=-88/183, 43-44=-88/183, 42-43=-88/183, 41-42=-88/183, 40-41=-88/183, 39-40=-88/183, 38-39=-88/183, 37-38=-88/184, 35-37=-88/184, 34-35=-88/184, 33-34=-88/184, 31-33=-88/184, 30-31=-88/184, 29-30=-86/182, 28-29=-86/182, 27-28=-86/182, 26-27=-86/182, 25-26=-86/182, 24-25=-86/182, 22-24=-86/182

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



April 8, 2022

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss A04	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257108
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Apr 07 21:43:08
ID:husayWcpnt6lYOYkURLMl2yGMJ9-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 2

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior
zone and C-C Corner(3E) -0-8-1 to 2-11-8, Exterior(2N)
2-11-8 to 14-11-8, Corner(3R) 14-11-8 to 22-11-8,
Exterior(2N) 22-11-8 to 34-9-9, Corner(3E) 34-9-9 to
38-7-1 zone; cantilever left and right exposed ; end
vertical left and right 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15
Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate
DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9;
Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this
design.
- 6) This truss has been designed for greater of min roof live
load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on
overhangs non-concurrent with other live loads.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 11) * 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.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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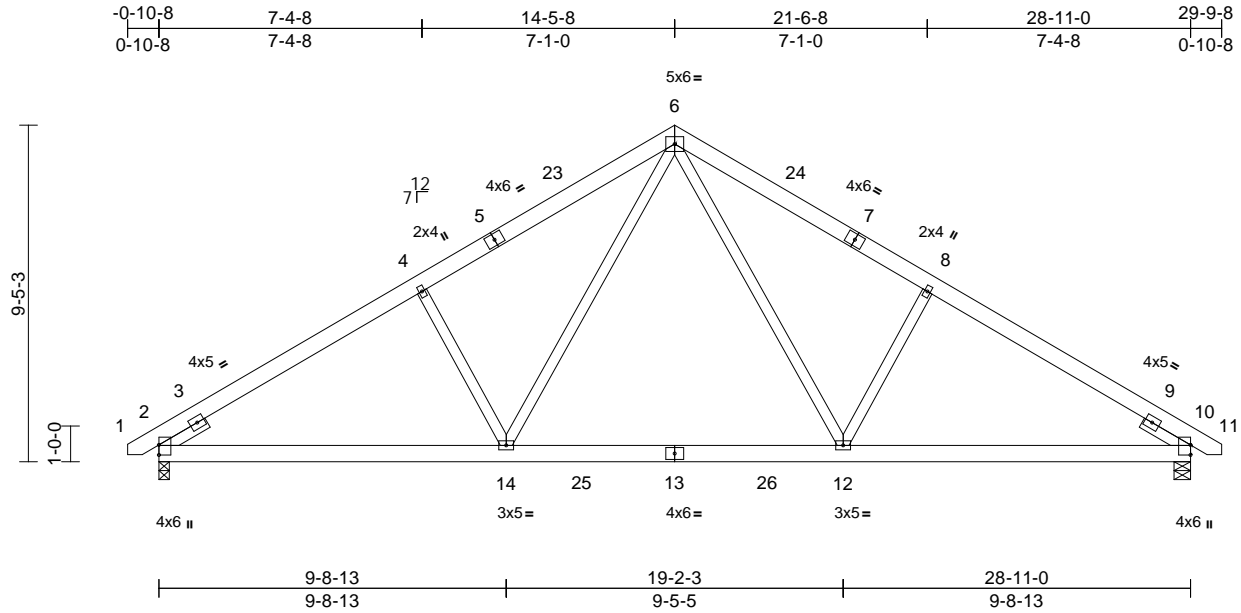
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss B01	Truss Type Common	Qty 3	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257109
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Apr 07 21:43:08
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Page: 1



Scale = 1:64.6

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	0.48	Vert(LL)	-0.13	12-14	>999	240	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.20	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.04	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 199 lb	FT = 20%

LUMBER	
TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 5-1-1 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS	(lb/size)
	2=1197/0-3-8, 10=1197/0-5-8
	Max Horiz 2=-207 (LC 12)
	Max Uplift 2=-117 (LC 14), 10=-117 (LC 15)
	Max Grav 2=1361 (LC 24), 10=1361 (LC 25)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/20, 2-4=-1868/186, 4-6=-1727/238, 6-8=-1727/238, 8-10=-1868/186, 10-11=0/20
BOT CHORD	2-14=-205/1674, 12-14=-14/1126, 10-12=-83/1524
WEBS	6-12=-126/799, 8-12=-430/249, 6-14=-126/798, 4-14=-430/249

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-1 to 2-3-15, Interior (1) 2-3-15 to 11-5-8, Exterior(2R) 11-5-8 to 17-5-8, Interior (1) 17-5-8 to 26-7-1, Exterior(2E) 26-7-1 to 29-7-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



April 8, 2022

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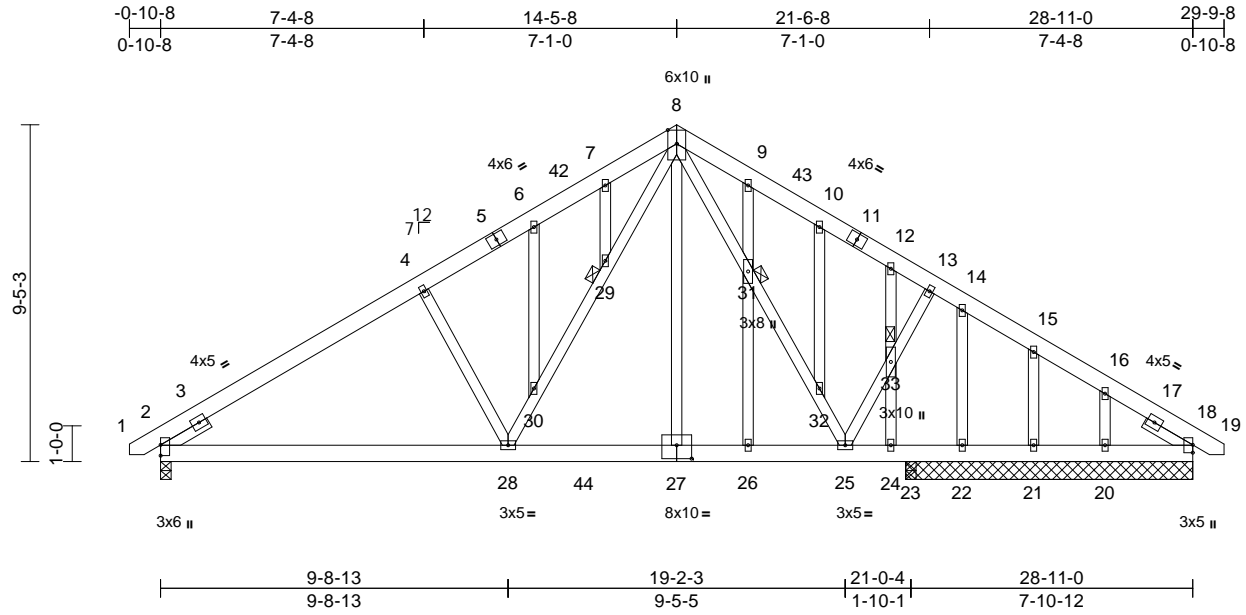
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss B02	Truss Type Common Structural Gable	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257110
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Apr 07 21:43:09
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Page: 1



Scale = 1:64.5

Plate Offsets (X, Y): [27:0-5-0,0-4-8]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.05	28-36	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.10	28-36	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.02	18	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 260 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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.
JOINTS 1 Brace at Jt(of): 29, 31, 33

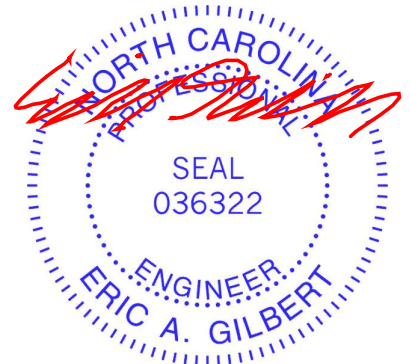
REACTIONS (lb/size)
2=884/0-3-8, 18=206/8-0-8,
20=153/8-0-8, 21=147/8-0-8,
22=272/8-0-8, 23=656/0-3-8,
38=206/8-0-8
Max Horiz 2=-199 (LC 12)
Max Uplift 2=-102 (LC 14), 20=-95 (LC 15),
21=-42 (LC 15), 23=-62 (LC 15)
Max Grav 2=1010 (LC 24), 18=230 (LC 24),
20=209 (LC 25), 21=178 (LC 25),
22=315 (LC 24), 23=720 (LC 6),
38=230 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-4=-1253/151, 4-6=-1115/179,
6-7=-1059/215, 7-8=-975/220, 8-9=-409/180,
9-10=-453/146, 10-12=-487/124,
12-13=-314/80, 13-14=-341/73,
14-15=-141/52, 15-16=-181/26,
16-18=-185/25, 18-19=0/20
BOT CHORD 2-28=-195/1137, 26-28=0/624, 25-26=0/622,
24-25=-12/161, 23-24=-12/161,
22-23=-12/161, 21-22=-12/161,
20-21=-12/161, 18-20=-12/161

WEBS
8-31=-471/42, 31-32=-440/34,
25-32=-481/46, 25-33=-3/590, 13-33=-2/523,
28-30=-119/694, 29-30=-164/733,
8-29=-148/693, 4-28=-373/209, 8-27=-9/208,
7-29=-19/65, 6-30=-139/51, 9-31=-82/98,
26-31=-113/74, 10-32=-83/23,
12-33=-488/97, 24-33=-551/91,
14-22=-484/39, 15-21=-84/70, 16-20=-132/96

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-8-1 to 2-3-15, Interior (1) 2-3-15 to 11-6-15, Exterior(2R) 11-6-15 to 17-6-15, Interior (1) 17-6-15 to 26-5-8, Exterior(2E) 26-5-8 to 29-7-1 zone; cantilever left and right exposed ; end vertical left and right 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable studs spaced at 2-0-0 oc.

9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.



April 8, 2022

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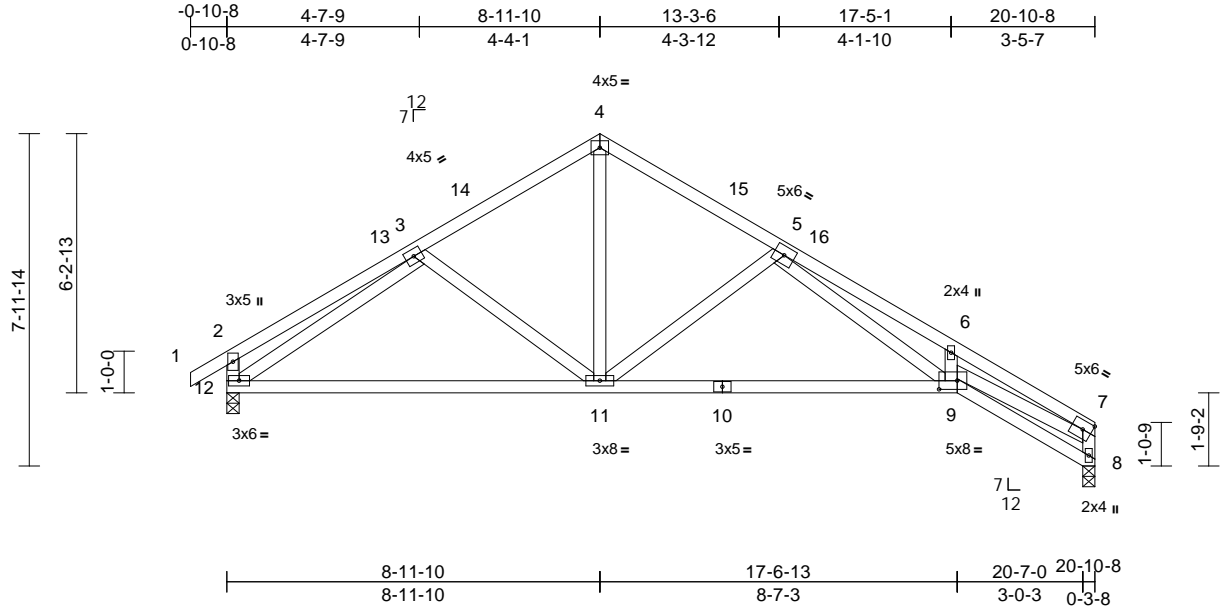
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss C01	Truss Type Roof Special	Qty 4	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257111
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Apr 07 21:43:09
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Page: 1



Scale = 1:55.4

Plate Offsets (X, Y): [9:0-5-4,0-2-8]

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	0.48	Vert(LL)	-0.17	9-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.41	9-11	>607	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.17	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 117 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 9-7:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 8=822/0-3-8, 12=886/0-3-8
Max Horiz 12=182 (LC 13)
Max Uplift 8=-87 (LC 15), 12=-83 (LC 14)
Max Grav 8=873 (LC 22), 12=923 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/31, 2-3=-284/67, 3-4=-945/134, 4-5=-1006/134, 5-6=-2911/355, 6-7=-2956/242, 7-8=-902/112, 2-12=-303/96
BOT CHORD 11-12=-76/913, 9-11=-39/1298, 8-9=-36/160
WEBS 3-11=-250/164, 4-11=-36/624, 5-11=-673/199, 5-9=-203/1543, 6-9=-155/142, 7-9=-154/2454, 3-12=-941/94

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 5-11-10, Exterior(2R) 5-11-10 to 11-11-10, Interior (1) 11-11-10 to 17-8-12, Exterior(2E) 17-8-12 to 20-8-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 12. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 8, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



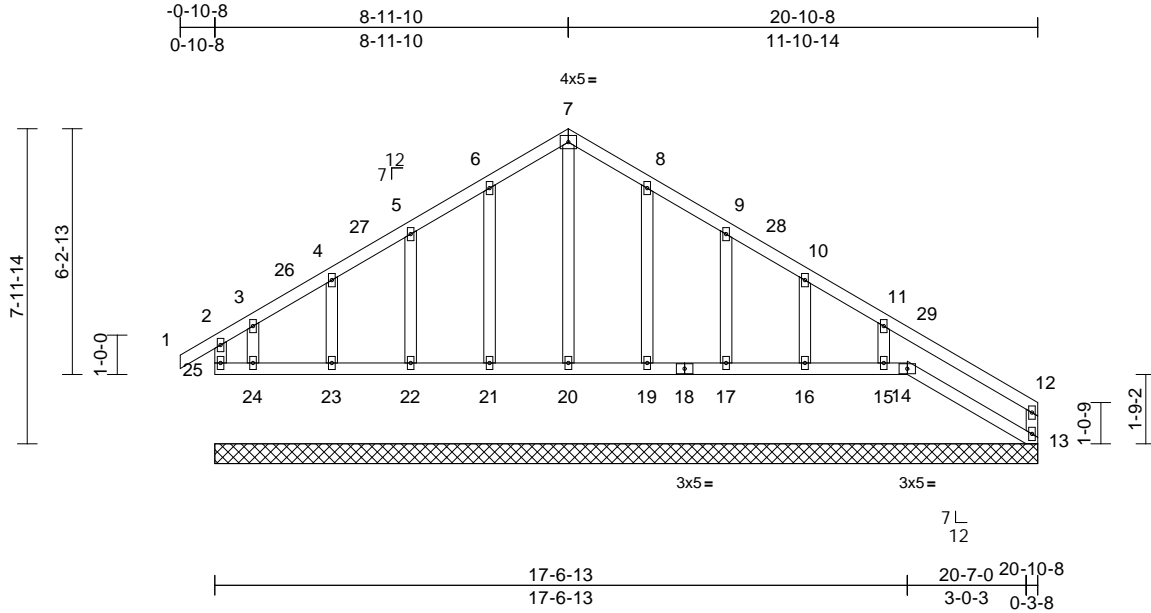
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss C03	Truss Type Roof Special Supported Gable	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257112
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Apr 07 21:43:10
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Page: 1



Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	13	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 113 lb	FT = 20%

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

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

REACTIONS (lb/size)
13=126/20-10-8, 14=70/20-10-8, 15=219/20-10-8, 16=120/20-10-8, 17=162/20-10-8, 19=159/20-10-8, 20=110/20-10-8, 21=161/20-10-8, 22=152/20-10-8, 23=165/20-10-8, 24=51/20-10-8, 25=159/20-10-8
Max Horiz 25=176 (LC 13)
Max Uplift 13=21 (LC 15), 15=119 (LC 15), 16=20 (LC 15), 17=58 (LC 15), 19=44 (LC 15), 20=17 (LC 13), 21=48 (LC 14), 22=51 (LC 14), 23=47 (LC 14), 24=144 (LC 11), 25=194 (LC 10)
Max Grav 13=132 (LC 25), 14=110 (LC 7), 15=230 (LC 25), 16=126 (LC 22), 17=228 (LC 22), 19=242 (LC 22), 20=205 (LC 15), 21=245 (LC 21), 22=217 (LC 21), 23=170 (LC 21), 24=196 (LC 12), 25=271 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-25=199/136, 1-2=0/30, 2-3=198/177, 3-4=150/146, 4-5=142/177, 5-6=145/227, 6-7=171/274, 7-8=171/274, 8-9=146/228, 9-10=115/173, 10-11=105/141, 11-12=87/50, 12-13=117/68

BOT CHORD 24-25=25/49, 23-24=25/49, 22-23=25/49, 21-22=25/49, 20-21=25/49, 19-20=25/49, 17-19=25/49, 16-17=25/49, 15-16=25/49, 14-15=25/49, 13-14=37/71
WEBS 7-20=215/85, 6-21=206/72, 5-22=179/77, 4-23=128/82, 3-24=105/94, 8-19=203/68, 9-17=190/86, 10-16=85/44, 11-15=226/157

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 5-11-10, Corner(3R) 5-11-10 to 11-11-10, Exterior(2N) 11-11-10 to 17-8-12, Corner(3E) 17-8-12 to 20-8-12 zone; cantilever left and right exposed; end vertical left and right 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.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 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.
- N/A
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 25, 14, 20, 21, 22, 23, 24, 19, 17, 16, 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



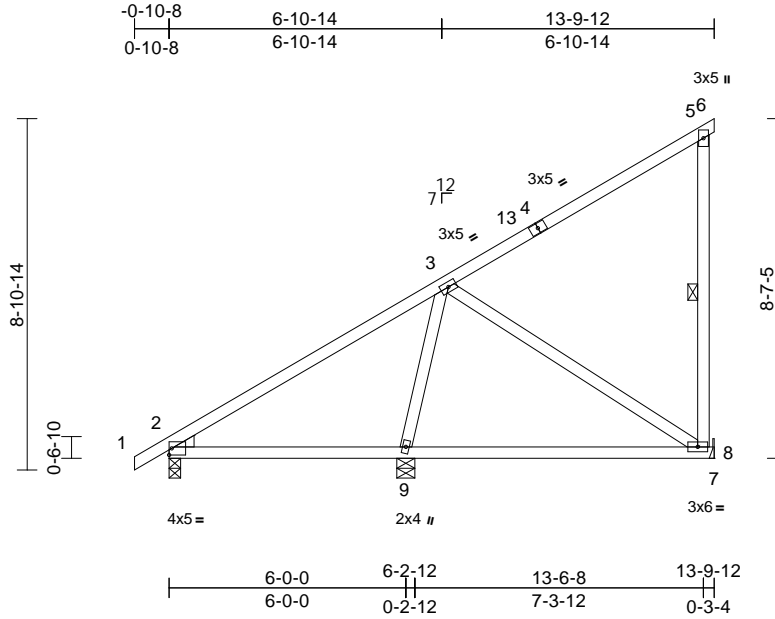
April 8, 2022

Job 22030115	Truss D01	Truss Type Monopitch	Qty 4	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257113
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Carter Components (Sanford), Sanford, NC - 27332,

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Scale = 1:58.4

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	Vert(LL)	0.09	9-12	>816	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.16	8-9	>561	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	-0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 76 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
WEDGE	Left: 2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 5-8

REACTIONS

(lb/size)	2=400/0-3-8, 8=408/ Mechanical, 9=350/0-5-8
Max Horiz	2=299 (LC 13)
Max Uplift	2=-79 (LC 14), 8=-155 (LC 14)
Max Grav	2=400 (LC 1), 8=525 (LC 21), 9=445 (LC 21)

FORCES

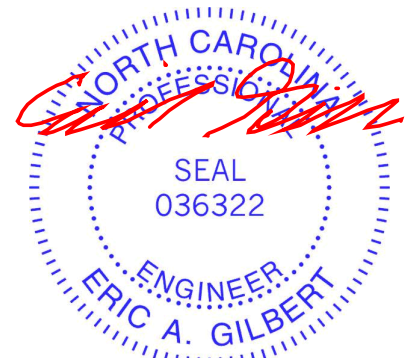
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/26, 2-3=-360/320, 3-5=-210/116, 5-6=-13/0, 5-8=-292/74
BOT CHORD	2-9=-274/328, 8-9=-213/303, 7-8=0/0
WEBS	3-9=-279/23, 3-8=-312/361

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 10-9-12, Exterior(2E) 10-9-12 to 13-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 155 lb uplift at joint 8.
- 9) H10A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 8, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



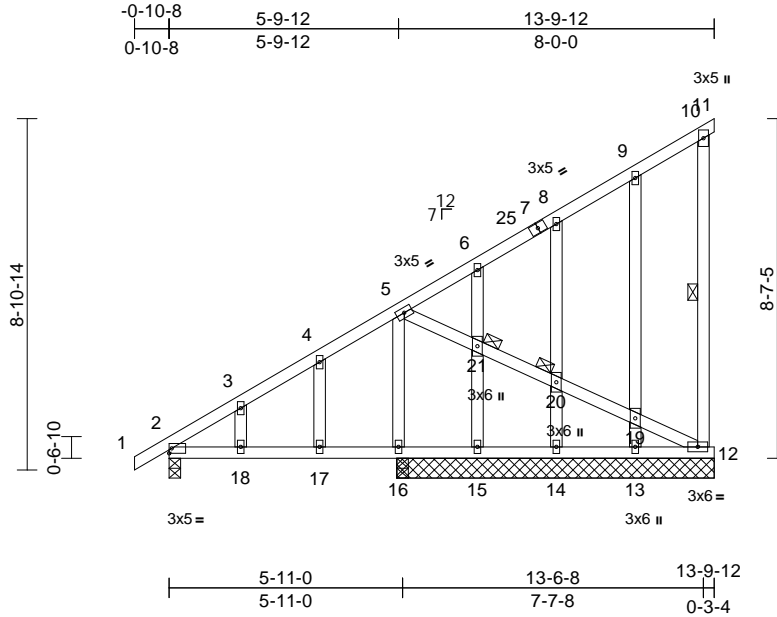
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss D02	Truss Type Monopitch Structural Gable	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257114
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	0.06	17-18	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.07	17-18	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 105 lb	FT = 20%

LUMBER		WEBS	
TOP CHORD	2x4 SP No.2	5-21=190/256, 20-21=189/255,	
BOT CHORD	2x4 SP No.2	19-20=190/256, 12-19=193/259,	
WEBS	2x4 SP No.3	9-19=188/70, 13-19=182/65,	
OTHERS	2x4 SP No.3	8-20=201/100, 14-20=198/98, 6-21=56/41,	
		15-21=58/42, 5-16=81/0, 4-17=62/49,	
		3-18=55/47	

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 10-12
JOINTS	1 Brace at Jt(s): 20, 21
REACTIONS	(lb/size) 2=345/0-3-8, 12=157/8-0-8, 13=138/8-0-8, 14=195/8-0-8, 15=6/8-0-8, 16=287/8-0-8
	Max Horiz 2=290 (LC 13)
	Max Uplift 2=27 (LC 14), 12=91 (LC 11), 13=38 (LC 14), 14=62 (LC 14), 15=7 (LC 7), 16=26 (LC 11)
	Max Grav 2=345 (LC 21), 12=194 (LC 21), 13=214 (LC 21), 14=261 (LC 21), 15=54 (LC 11), 16=287 (LC 2)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/26, 2-3=308/169, 3-4=273/179, 4-5=241/190, 5-6=176/103, 6-8=161/105, 8-9=153/105, 9-10=105/103, 10-11=13/0, 10-12=95/34
BOT CHORD	2-18=223/199, 17-18=159/199, 16-17=159/199, 15-16=159/199, 14-15=159/199, 13-14=159/199, 12-13=159/199

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 10-9-12, Exterior(2E) 10-9-12 to 13-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 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.



April 8, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



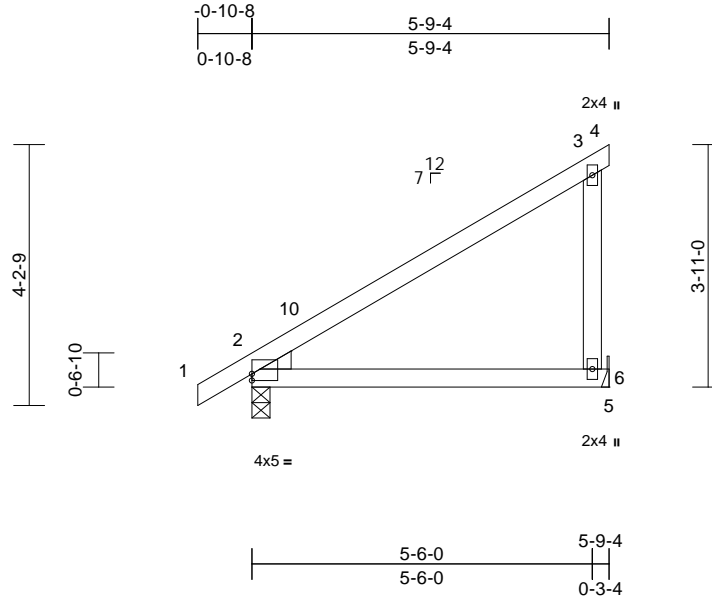
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss D03	Truss Type Monopitch	Qty 3	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257115
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:37.2

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

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	0.76	Vert(LL)	0.15	6-9	>440	240	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.12	6-9	>541	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 26 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2
 - BOT CHORD 2x4 SP No.2
 - WEBS 2x4 SP No.3
 - WEDGE Left: 2x4 SP No.3
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 5-9-4 oc purlins, except end verticals.
 - BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (lb/size) 2=276/0-3-8, 6=238/ Mechanical
 Max Horiz 2=131 (LC 13)
 Max Uplift 2=30 (LC 14), 6=77 (LC 11)
 Max Grav 2=352 (LC 21), 6=352 (LC 21)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/26, 2-3=-154/195, 3-4=-13/0, 3-6=-263/130
 - BOT CHORD 2-6=-187/230, 5-6=0/0

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 6.
- H10A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

- NOTES**
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 2-9-4, Exterior(2E) 2-9-4 to 5-9-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.



April 8, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



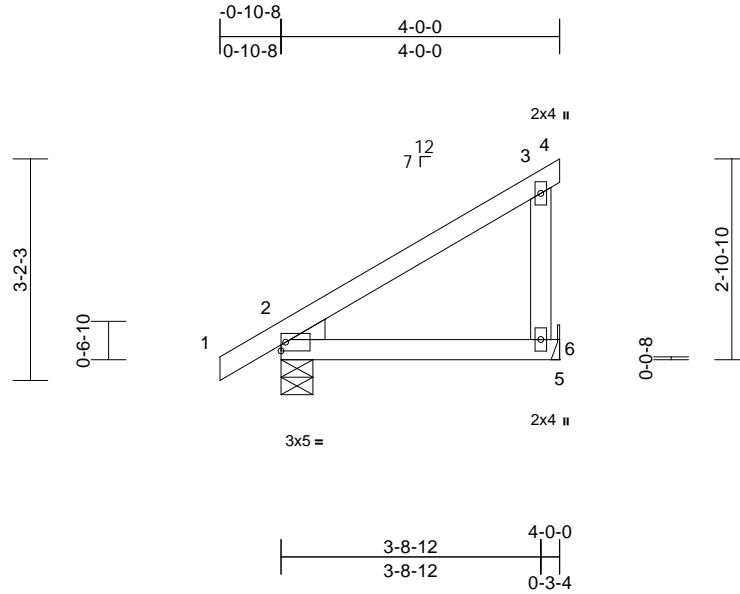
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss D04	Truss Type Monopitch	Qty 5	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257116
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Apr 07 21:43:11
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Page: 1



Scale = 1:33.1

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	0.31	Vert(LL)	-0.01	6-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 19 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3

BRACING

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

REACTIONS

(lb/size) 2=207/0-5-8, 6=165/ Mechanical
Max Horiz 2=94 (LC 13)
Max Uplift 2=-25 (LC 14), 6=-41 (LC 14)
Max Grav 2=315 (LC 21), 6=243 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

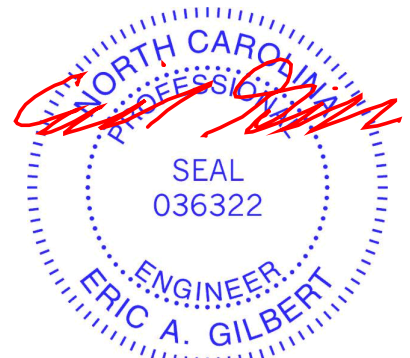
TOP CHORD 1-2=0/43, 2-3=-139/123, 3-4=-13/0,
3-6=-184/72
BOT CHORD 2-6=-118/80, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL); Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 6.
- 9) H10A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 8, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate

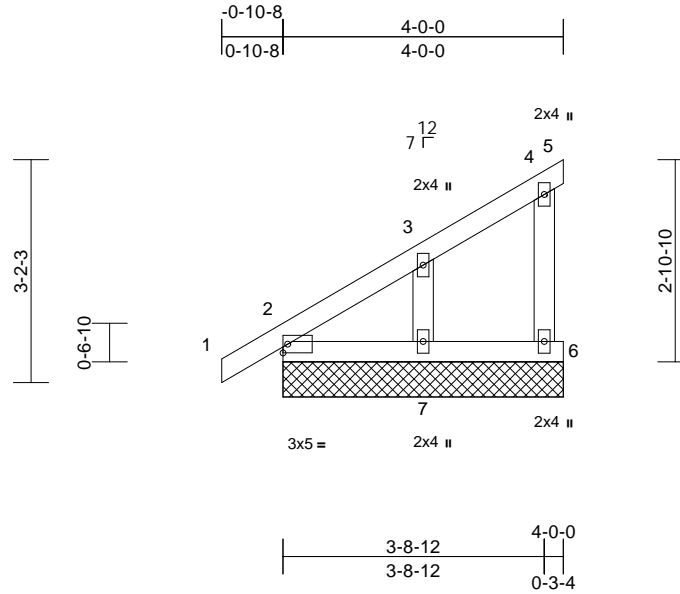
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss D05	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	151257117
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Apr 07 21:43:11
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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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 20 lb	FT = 20%	

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

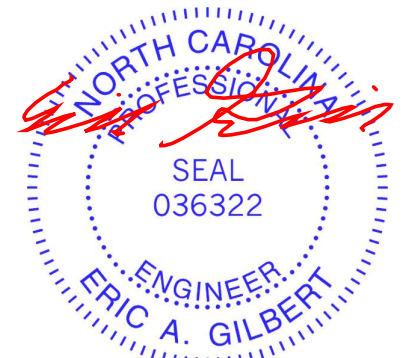
BRACING
 TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)
 2=130/4-0-0, 5=-10/4-0-0,
 6=82/4-0-0, 7=165/4-0-0,
 8=130/4-0-0
 Max Horiz 2=94 (LC 13), 8=94 (LC 13)
 Max Uplift 5=-17 (LC 21), 6=-23 (LC 14),
 7=-61 (LC 14)
 Max Grav 2=203 (LC 21), 5=8 (LC 14), 6=127 (LC 21),
 7=240 (LC 21), 8=203 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/43, 2-3=-110/70, 3-4=-57/36,
 4-5=-22/9, 4-6=-115/57
 BOT CHORD 2-7=-71/56, 6-7=-42/56
 WEBS 3-7=-194/172

- NOTES**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 4-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) 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.

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 5.



April 8, 2022

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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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



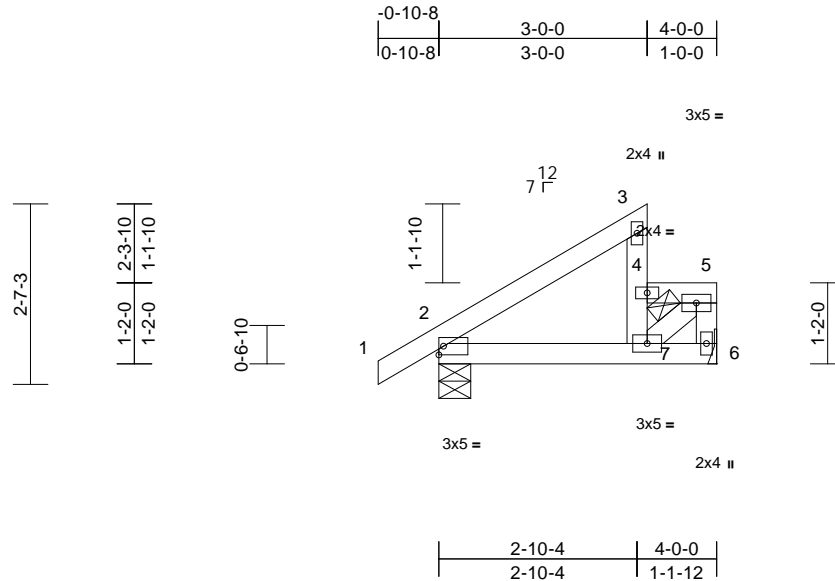
818 Soundside Road
 Edenton, NC 27932

Job 22030115	Truss D06	Truss Type Half Hip	Qty 6	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257118
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Carter Components (Sanford), Sanford, NC - 27332,

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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	0.35	Vert(LL)	0.00	7-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	7-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 19 lb	FT = 20%	

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-7, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

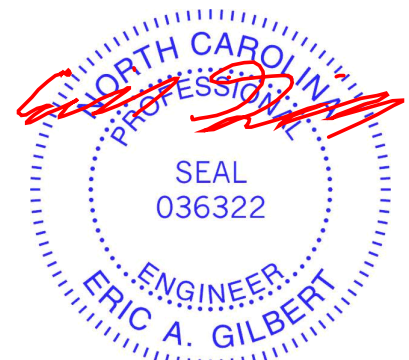
REACTIONS (lb/size) 2=226/0-5-8, 6=240/ Mechanical
Max Horiz 2=99 (LC 14)
Max Uplift 2=-15 (LC 14), 6=-52 (LC 14)
Max Grav 2=307 (LC 36), 6=251 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-168/50, 4-7=-129/90,
3-4=-60/55, 4-5=-188/96, 5-6=-236/104
BOT CHORD 2-7=-109/97, 6-7=-15/16
WEBS 5-7=-106/253

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 6.
- H10A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-5=-165, 6-8=-20

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 3-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.



April 8, 2022

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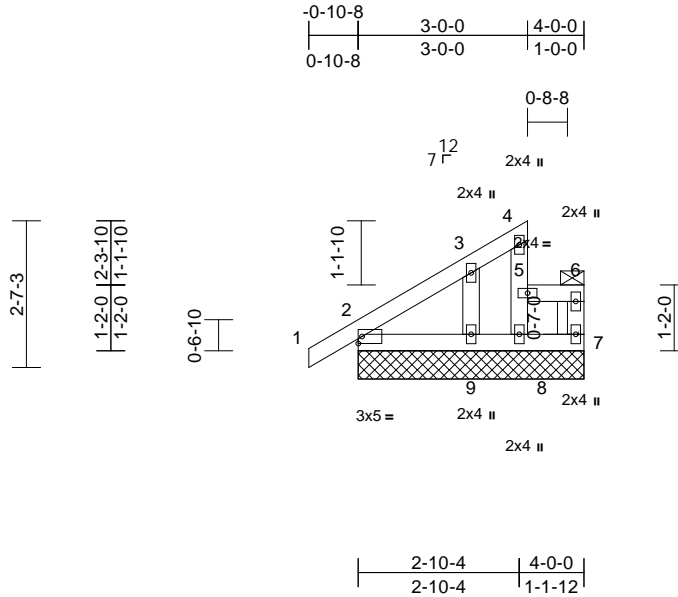
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss D07	Truss Type Half Hip Supported Gable	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257119
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Carter Components (Sanford), Sanford, NC - 27332,

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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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 19 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 5-8, 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)
2=133/4-0-0, 7=92/4-0-0, 8=103/4-0-0, 9=138/4-0-0, 10=133/4-0-0
Max Horiz 2=99 (LC 14), 10=99 (LC 14)
Max Uplift 7=-16 (LC 15), 8=-18 (LC 15), 9=-66 (LC 14)
Max Grav 2=193 (LC 36), 7=107 (LC 35), 8=114 (LC 35), 9=192 (LC 40), 10=193 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-118/74, 3-4=-43/25, 5-8=-104/82, 4-5=-21/17, 5-6=-15/20, 6-7=-98/72
BOT CHORD 2-9=-85/52, 8-9=-20/30, 7-8=-15/20
WEBS 3-9=-146/164

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 3-10-4 zone; cantilever left and right exposed; end vertical left and right 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- 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.
- N/A

- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-60, 5-6=-165 (F=-105), 7-10=-20



April 8, 2022

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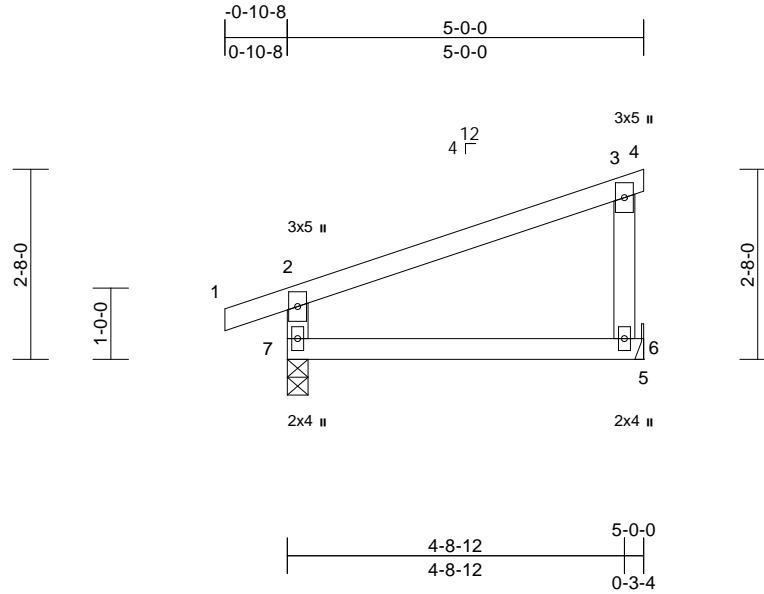
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss E01	Truss Type Monopitch	Qty 7	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257120
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:32.3

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	0.48	Vert(LL)	-0.01	6-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.03	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 21 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 6=199/ Mechanical, 7=251/0-3-8
Max Horiz 7=95 (LC 11)
Max Uplift 6=-39 (LC 14), 7=-61 (LC 10)
Max Grav 6=270 (LC 21), 7=350 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/29, 2-3=-139/49, 3-4=-8/0,
3-6=-205/155, 2-7=-318/242
BOT CHORD 6-7=-31/71, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 6.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 8, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



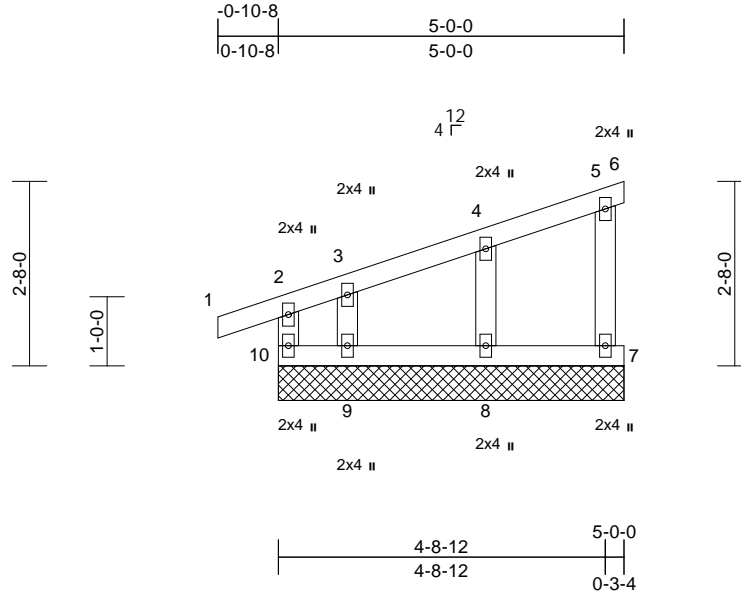
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss E02	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257121
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Carter Components (Sanford), Sanford, NC - 27332,

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Loading	(psf)	Spacing	1-11-4	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
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 24 lb	FT = 20%

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

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

REACTIONS (lb/size)
6=-1/5-0-0, 7=71/5-0-0,
8=163/5-0-0, 9=85/5-0-0,
10=112/5-0-0
Max Horiz 10=93 (LC 11)
Max Uplift 6=-20 (LC 10), 7=-19 (LC 11),
8=-29 (LC 10), 9=-72 (LC 11),
10=-13 (LC 10)
Max Grav 6=10 (LC 13), 7=99 (LC 21), 8=222
(LC 21), 9=111 (LC 21), 10=165
(LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-10=-147/87, 1-2=0/28, 2-3=-84/8,
3-4=-47/27, 4-5=-42/35, 5-6=-18/10,
5-7=-86/22
BOT CHORD 9-10=-32/39, 8-9=-32/39, 7-8=-32/39
WEBS 4-8=-180/170, 3-9=-95/156

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior
zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N)
2-1-8 to 5-0-0 zone; cantilever left and right exposed ;
end vertical left and right 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 6.



April 8, 2022

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



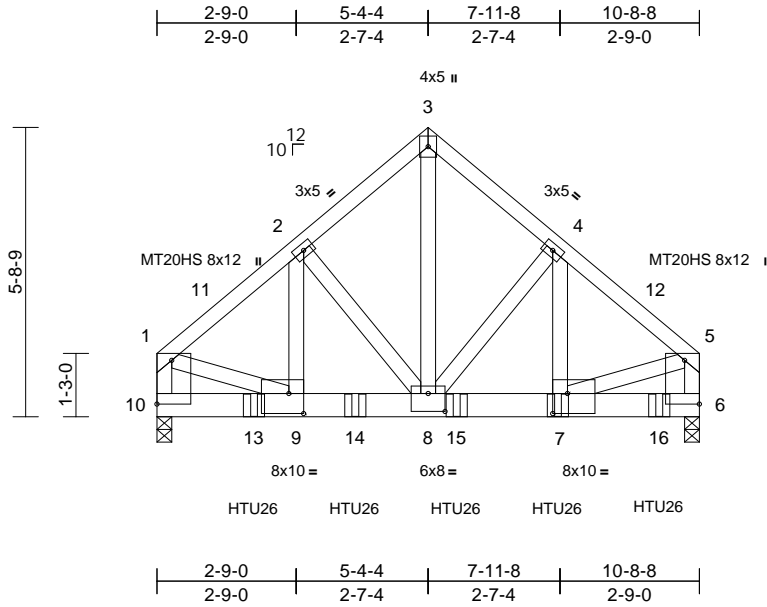
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss G01	Truss Type Common Girder	Qty 1	Ply 2	DRB GROUP - 113 FaNC Job Reference (optional)	I51257122
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Carter Components (Sanford), Sanford, NC - 27332,

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Scale = 1:45.5

Plate Offsets (X, Y): [1:Edge,0-3-8], [5:Edge,0-3-8], [7:0-3-8,0-4-12], [8:0-4-0,0-4-4], [9:0-3-8,0-4-12]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.03	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.05	8-9	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 164 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3 *Except* 10-1,6-5:2x4 SP No.2

BRACING

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

REACTIONS

(lb/size) 6=4622/0-3-8, 10=3716/0-3-8
 Max Horiz 10=130 (LC 10)
 Max Uplift 6=-337 (LC 13), 10=-347 (LC 12)
 Max Grav 6=4887 (LC 21), 10=4157 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-4042/363, 2-3=-3213/337, 3-4=-3213/337, 4-5=-4061/350, 1-10=-3665/318, 5-6=-3667/307
 BOT CHORD 9-10=-139/354, 8-9=-282/3118, 7-8=-227/3082, 6-7=-33/316
 WEBS 1-9=-230/2983, 5-7=-224/2950, 3-8=-367/3873, 4-8=-1003/148, 4-7=-82/1221, 2-8=-980/164, 2-9=-102/1191

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 - 3 rows staggered at 0-8-0 oc.
 Web connected as follows: 2x4 - 2 rows staggered at 0-7-0 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.

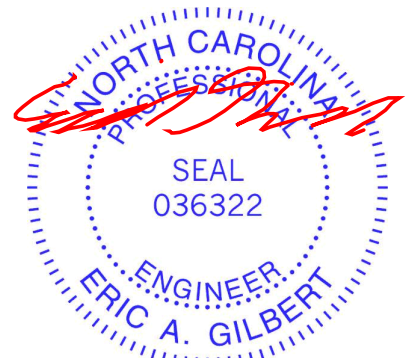
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- All plates are MT20 plates 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-11-0 from the left end to 9-11-0 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-3=-58, 3-5=-58, 6-10=-19
 Concentrated Loads (lb)
 Vert: 7=-1485 (B), 13=-1485 (B), 14=-1485 (B), 15=-1485 (B), 16=-1590 (B)



April 8, 2022

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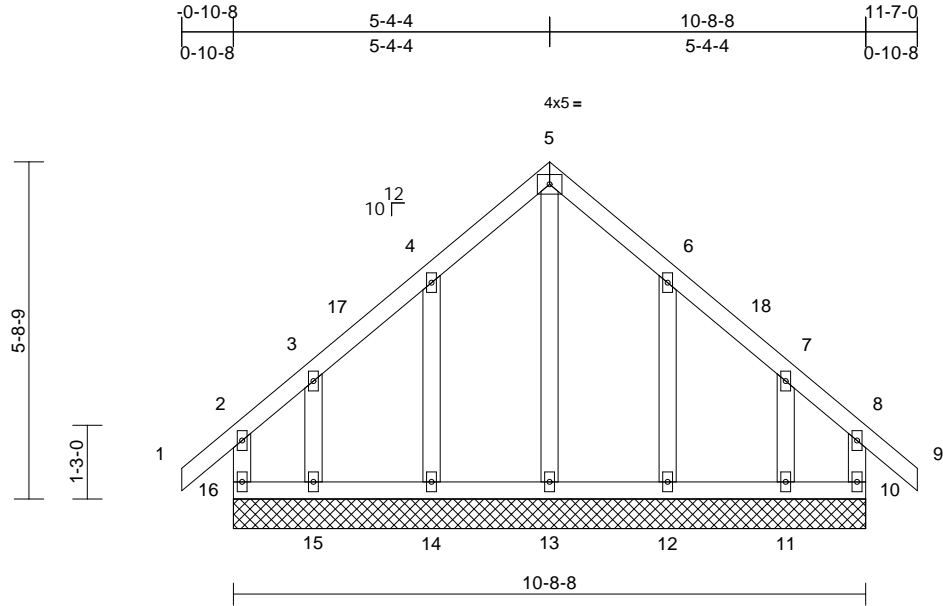
818 Soundside Road
 Edenton, NC 27932

Job 22030115	Truss G02	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257123
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:39

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR							
BCDL	10.0									Weight: 67 lb	FT = 20%

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

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

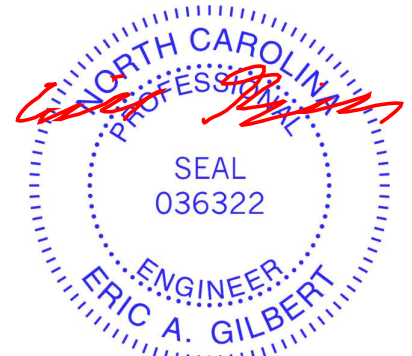
REACTIONS (lb/size)
10=109/10-8-8, 11=110/10-8-8,
12=169/10-8-8, 13=150/10-8-8,
14=169/10-8-8, 15=110/10-8-8,
16=109/10-8-8
Max Horiz 16=153 (LC 12)
Max Uplift 10=78 (LC 11), 11=104 (LC 15),
12=72 (LC 15), 14=72 (LC 14),
15=106 (LC 14), 16=91 (LC 10)
Max Grav 10=145 (LC 28), 11=174 (LC 25),
12=272 (LC 22), 13=182 (LC 27),
14=272 (LC 21), 15=180 (LC 24),
16=155 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-121/140, 1-2=0/38, 2-3=-92/96,
3-4=-65/176, 4-5=-120/285, 5-6=-120/285,
6-7=-65/176, 7-8=-80/85, 8-9=0/38,
8-10=-113/140
BOT CHORD 15-16=-78/82, 14-15=-78/82, 13-14=-78/82,
12-13=-78/82, 11-12=-78/82, 10-11=-78/82
WEBS 5-13=-281/55, 4-14=-231/147,
3-15=-123/135, 6-12=-231/147,
7-11=-123/135

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Corner(3R) 2-1-8 to 8-7-0, Corner(3E) 8-7-0 to 11-7-0 zone; cantilever left and right exposed; end vertical left and right 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2'-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.
- N/A

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



April 8, 2022

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ENGINEERING BY
TRENCO
A MiTek Affiliate

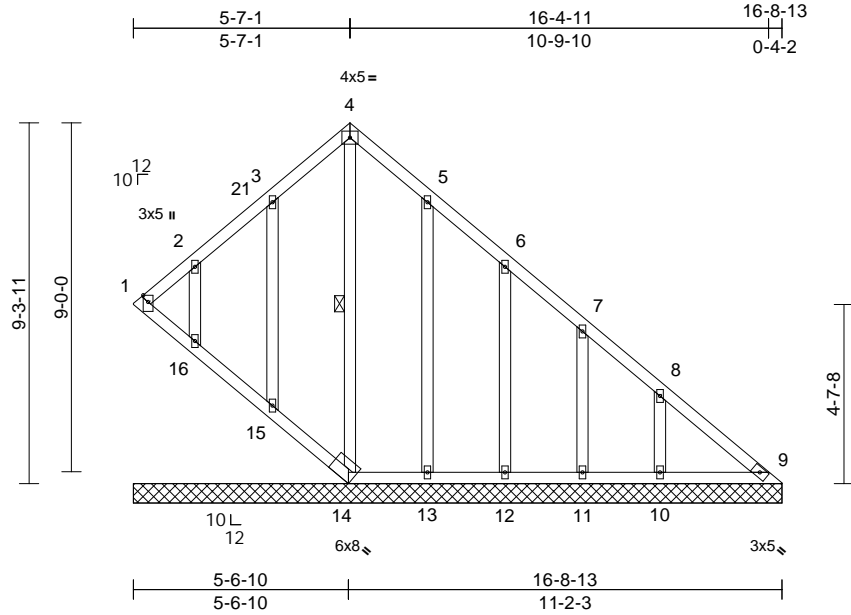
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss V01	Truss Type Roof Special	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257124
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Carter Components (Sanford), Sanford, NC - 27332,

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Loading	(psf)	Spacing	1-11-4	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
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 110 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 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-14

REACTIONS

(lb/size) 1=70/16-8-13, 9=104/16-8-13, 10=223/16-8-13, 11=133/16-8-13, 12=159/16-8-13, 13=162/16-8-13, 14=92/16-8-13, 15=165/16-8-13, 16=144/16-8-13
Max Horiz 1=228 (LC 15)
Max Uplift 10=106 (LC 15), 11=-63 (LC 15), 12=80 (LC 15), 13=-69 (LC 15), 15=-72 (LC 14), 16=-72 (LC 14)
Max Grav 1=103 (LC 14), 9=129 (LC 26), 10=242 (LC 24), 11=144 (LC 24), 12=203 (LC 21), 13=263 (LC 21), 14=100 (LC 21), 15=266 (LC 20), 16=190 (LC 20)

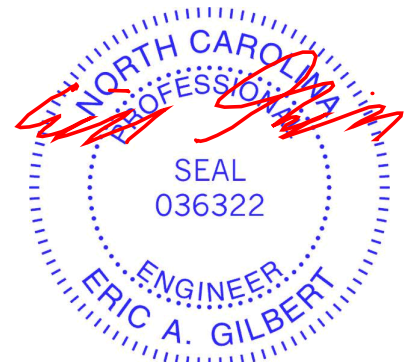
FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-122/117, 2-3=-120/139, 3-4=-118/208, 4-5=-117/206, 5-6=-93/123, 6-7=-63/30, 7-8=-95/39, 8-9=-185/93
BOT CHORD 1-16=-116/258, 15-16=-116/259, 14-15=-115/261, 13-14=-80/195, 12-13=-80/194, 11-12=-80/194, 10-11=-80/194, 9-10=-80/194
WEBS 4-14=-194/57, 3-15=-225/118, 2-16=-153/131, 5-13=-222/107, 6-12=-162/122, 7-11=-118/103, 8-10=-166/158

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-2-12 to 3-2-12, Corner(3R) 3-2-12 to 8-7-4, Exterior(2N) 8-7-4 to 13-4-7, Corner(3E) 13-4-7 to 16-4-7 zone; cantilever left and right exposed; end vertical left and right 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 15 and 72 lb uplift at joint 16.
- N/A

- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



April 8, 2022

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818 Soundside Road
Edenton, NC 27932

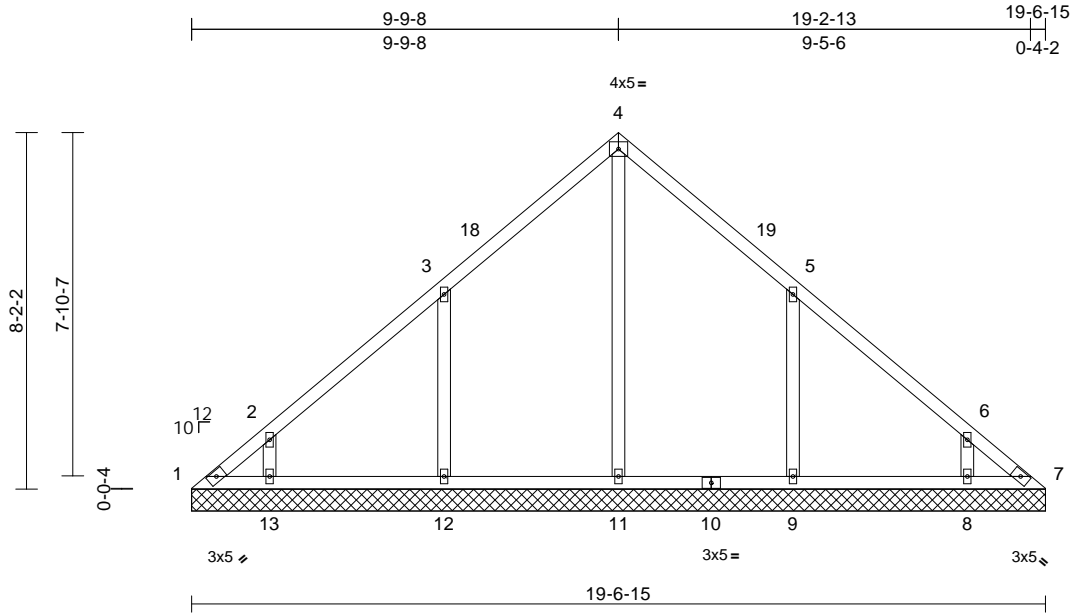
Job 22030115	Truss V02	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257125
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1

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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	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 92 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 10-0-0 oc bracing.

REACTIONS (lb/size)
1=52/19-6-15, 7=52/19-6-15,
8=272/19-6-15, 9=344/19-6-15,
11=229/19-6-15, 12=344/19-6-15,
13=272/19-6-15
Max Horiz 1=188 (LC 10)
Max Uplift 1=65 (LC 12), 7=19 (LC 13),
8=92 (LC 15), 9=175 (LC 15),
12=175 (LC 14), 13=98 (LC 14)
Max Grav 1=112 (LC 14), 7=82 (LC 26),
8=322 (LC 28), 9=479 (LC 6),
11=378 (LC 26), 12=479 (LC 5),
13=328 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-215/155, 2-3=-183/119, 3-4=-207/166,
4-5=-207/142, 5-6=-139/64, 6-7=-174/96
BOT CHORD 1-13=-75/143, 12-13=-63/143,
11-12=-63/143, 9-11=-63/143, 8-9=-63/143,
7-8=-63/143
WEBS 4-11=-183/7, 3-12=-378/222, 2-13=-223/164,
5-9=-378/222, 6-8=-221/162

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 6-9-12, Exterior(2R) 6-9-12 to 12-9-12, Interior (1) 12-9-12 to 16-7-4, Exterior(2E) 16-7-4 to 19-7-4 zone; cantilever left and right exposed; end vertical left and right 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 1 and 19 lb uplift at joint 7.

LOAD CASE(S) Standard



April 8, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



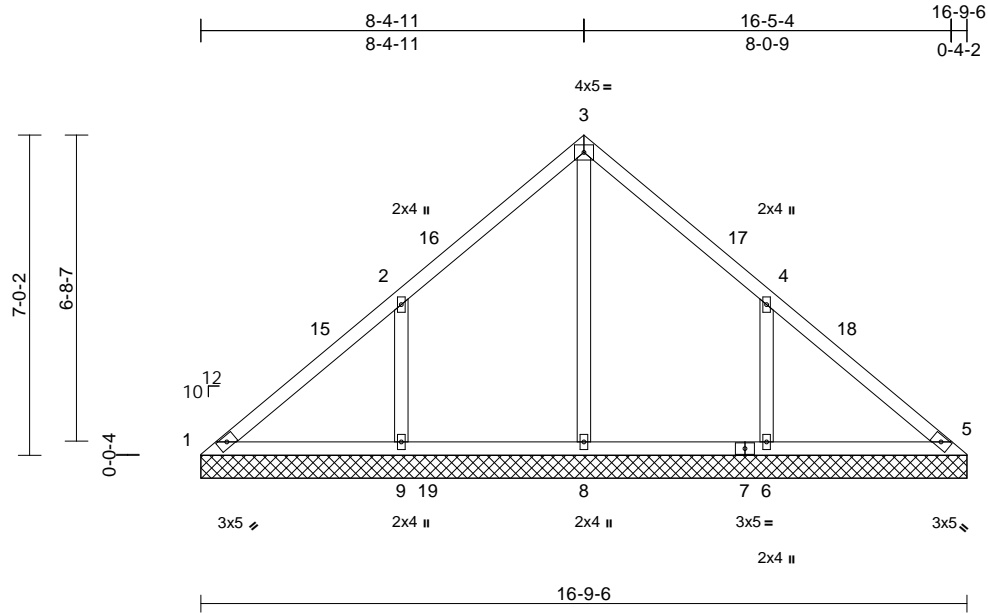
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss V03	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257126
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:50.5

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)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.40	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 75 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

(lb/size) 1=30/16-9-6, 5=0/16-9-6, 6=386/16-9-6, 8=510/16-9-6, 9=386/16-9-6, 14=0/16-9-6
Max Horiz 1=160 (LC 11)
Max Uplift 1=-58 (LC 10), 6=-182 (LC 15), 9=-188 (LC 14)
Max Grav 1=82 (LC 33), 5=1 (LC 24), 6=510 (LC 6), 8=653 (LC 23), 9=509 (LC 5), 14=1 (LC 24)

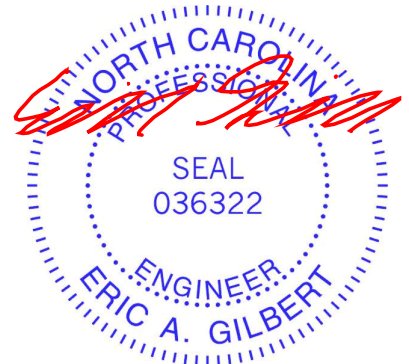
FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-105/368, 2-3=-26/318, 3-4=-3/297, 4-5=-137/288
BOT CHORD 1-9=-179/76, 8-9=-179/73, 6-8=-179/73, 5-6=-179/73
WEBS 3-8=-469/0, 2-9=-392/220, 4-6=-392/218

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-5-0, Exterior(2R) 5-5-0 to 11-5-0, Interior (1) 11-5-0 to 13-9-10, Exterior(2E) 13-9-10 to 16-9-10 zone; cantilever left and right exposed ; end vertical left and right 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 1.



April 8, 2022

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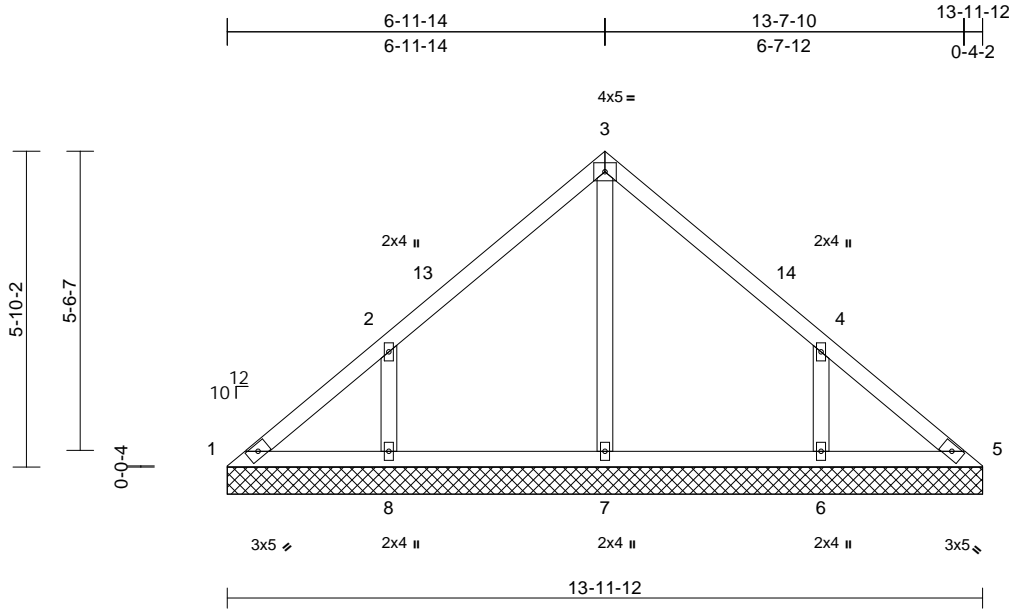
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss V04	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257127
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:42.6

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	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 60 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

(lb/size) 1=92/13-11-12, 5=92/13-11-12, 6=327/13-11-12, 7=281/13-11-12, 8=327/13-11-12
Max Horiz 1=133 (LC 11)
Max Uplift 1=-25 (LC 10), 6=-150 (LC 15), 8=-153 (LC 14)
Max Grav 1=116 (LC 28), 5=92 (LC 23), 6=447 (LC 21), 7=293 (LC 21), 8=447 (LC 20)

FORCES

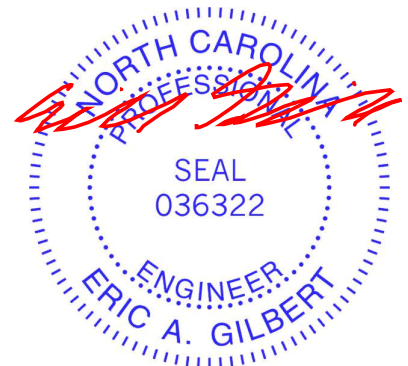
(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-144/124, 2-3=-186/117, 3-4=-186/113, 4-5=-114/88
BOT CHORD 1-8=-53/116, 7-8=-53/94, 6-7=-53/94, 5-6=-53/94
WEBS 3-7=-212/0, 2-8=-374/194, 4-6=-374/192

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-3, Interior (1) 3-0-3 to 4-0-3, Exterior(2R) 4-0-3 to 10-0-3, Interior (1) 10-0-3 to 11-0-1, Exterior(2E) 11-0-1 to 14-0-1 zone; cantilever left and right exposed ; end vertical left and right 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1.



April 8, 2022

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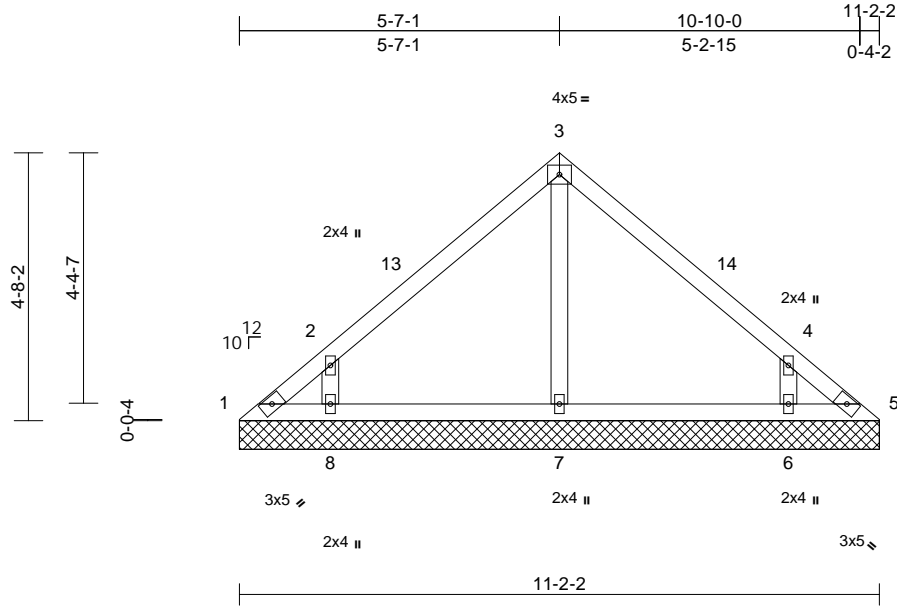
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss V05	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257128
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:40.2

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	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											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 10-0-0 oc bracing.

REACTIONS

(lb/size) 1=34/11-2-2, 5=34/11-2-2, 6=298/11-2-2, 7=231/11-2-2, 8=298/11-2-2
Max Horiz 1=-105 (LC 10)
Max Uplift 1=-42 (LC 12), 5=-16 (LC 13), 6=-134 (LC 15), 8=-138 (LC 14)
Max Grav 1=70 (LC 11), 5=53 (LC 26), 6=446 (LC 21), 7=250 (LC 20), 8=446 (LC 20)

FORCES

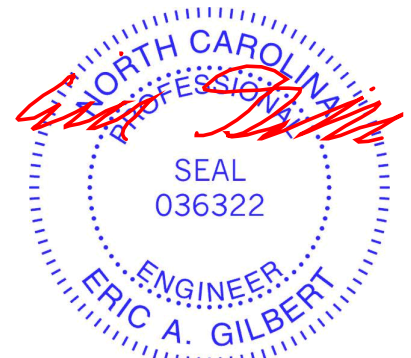
(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-127/102, 2-3=-225/111, 3-4=-225/111, 4-5=-104/68
BOT CHORD 1-8=-34/74, 7-8=-24/74, 6-7=-24/74, 5-6=-39/74
WEBS 3-7=-162/0, 2-8=-447/252, 4-6=-447/252

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 8-2-7, Exterior(2E) 8-2-7 to 11-2-7 zone; cantilever left and right exposed ; end vertical left and right 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1 and 16 lb uplift at joint 5.



April 8, 2022

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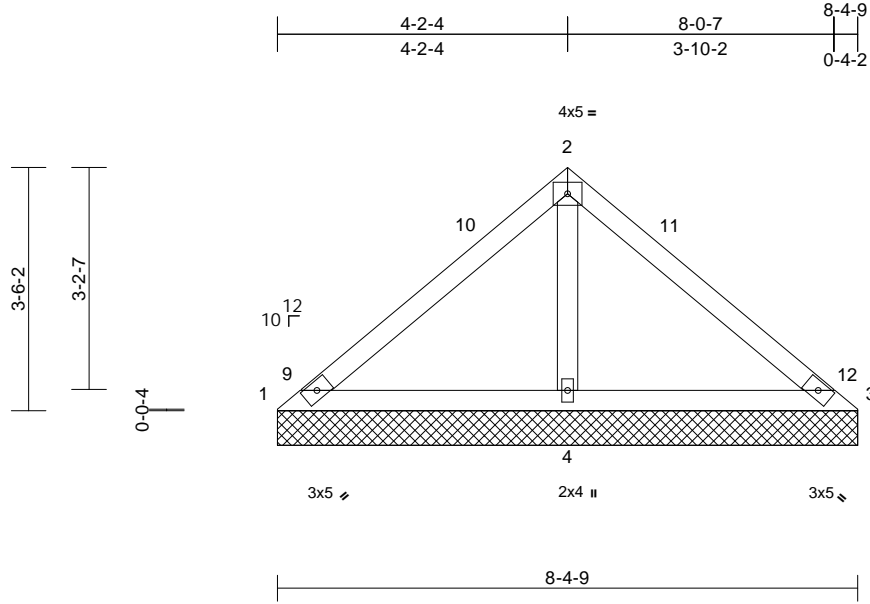
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss V06	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	I51257129
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Carter Components (Sanford), Sanford, NC - 27332,

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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	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.36	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										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 8-4-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 1=28/8-4-9, 3=28/8-4-9, 4=615/8-4-9
Max Horiz 1=78 (LC 13)
Max Uplift 1=-42 (LC 21), 3=-42 (LC 20), 4=-99 (LC 14)
Max Grav 1=90 (LC 20), 3=90 (LC 21), 4=667 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-121/305, 2-3=-121/305
BOT CHORD 1-4=-206/182, 3-4=-206/182
WEBS 2-4=-494/248

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 5-4-14, Exterior(2E) 5-4-14 to 8-4-14 zone; cantilever left and right exposed; end vertical left and right 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.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1 and 42 lb uplift at joint 3.



April 8, 2022

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



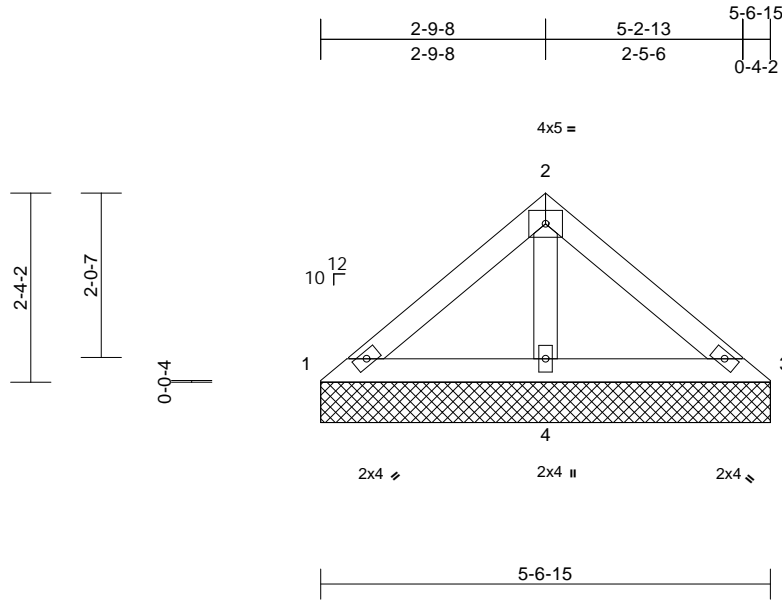
818 Soundside Road
Edenton, NC 27932

Job 22030115	Truss V07	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 113 FaNC Job Reference (optional)	151257130
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Apr 07 21:43:14
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Page: 1



Scale = 1:28.6

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										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

(lb/size) 1=50/5-6-15, 3=50/5-6-15, 4=346/5-6-15
Max Horiz 1=-51 (LC 10)
Max Uplift 3=-5 (LC 15), 4=-44 (LC 14)
Max Grav 1=96 (LC 20), 3=96 (LC 21), 4=360 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-86/136, 2-3=-86/136
BOT CHORD 1-4=-103/109, 3-4=-103/109
WEBS 2-4=-236/128

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 3.



April 8, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

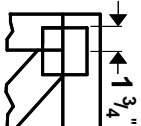
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ENGINEERING BY
TRENCO
A MiTek Affiliate

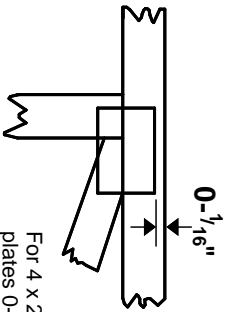
818 Soundside Road
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Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

* Plate location details available in **MITek 20/20 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



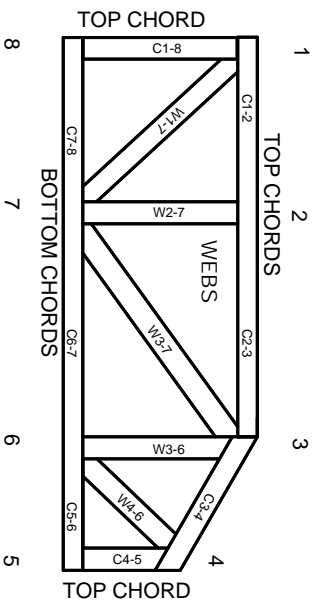
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TFP 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & 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-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TFP 1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



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/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.