

RE: 22040113
 DRB GROUP - 119 FaNC

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Customer: Project Name: 22040113
 Lot/Block: Model:
 Address: Subdivision:
 City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

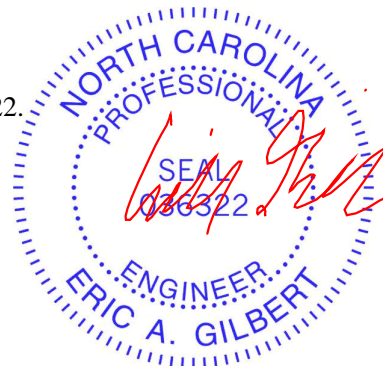
Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.5
 Wind Code: ASCE 7-16 Wind Speed: 130 mph
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 16 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I51773810	A01	5/5/2022
2	I51773811	A02	5/5/2022
3	I51773812	A03	5/5/2022
4	I51773813	A04	5/5/2022
5	I51773814	B01	5/5/2022
6	I51773815	B02	5/5/2022
7	I51773816	B03	5/5/2022
8	I51773817	C01	5/5/2022
9	I51773818	C02	5/5/2022
10	I51773819	D01	5/5/2022
11	I51773820	D02	5/5/2022
12	I51773821	E01	5/5/2022
13	I51773822	E02	5/5/2022
14	I51773823	V1	5/5/2022
15	I51773824	V2	5/5/2022
16	I51773825	V3	5/5/2022

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC)).
 Truss Design Engineer's Name: Gilbert, Eric
 My license renewal date for the state of North Carolina is December 31, 2022.
 North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.



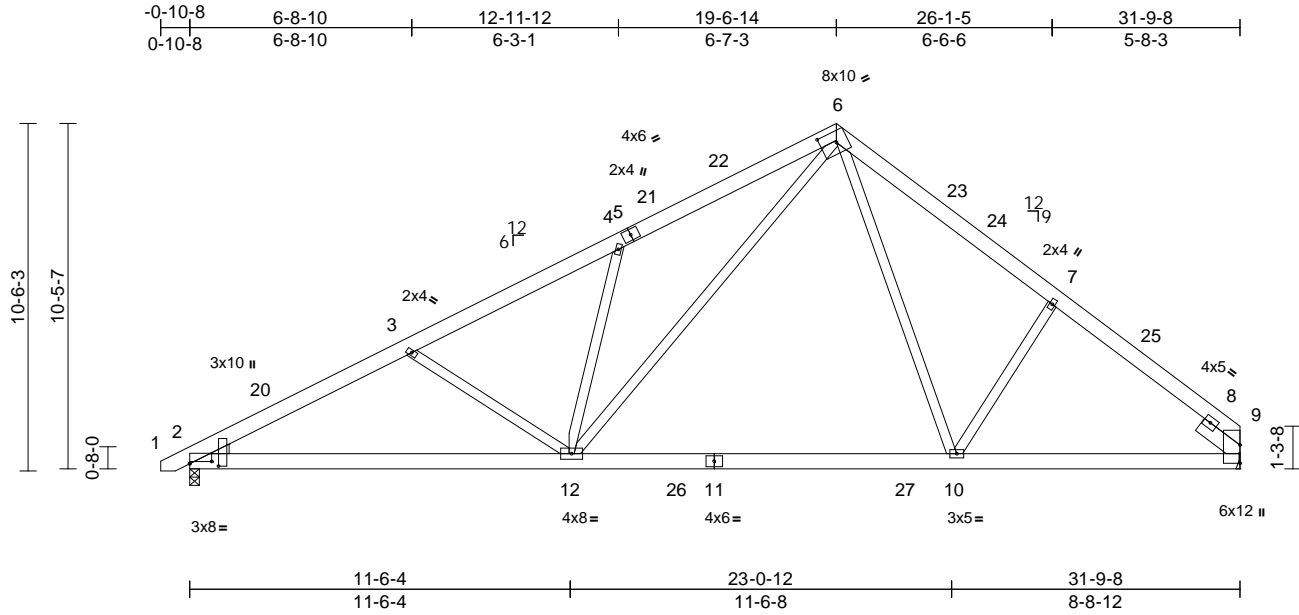
May 05, 2022

Job 22040113	Truss A01	Truss Type Roof Special	Qty 6	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773810
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:07
ID:24AZDW7zTEHAC6YN1cvXXYyEOkd-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:69.7

Plate Offsets (X, Y): [2:0-8-0,0-0-13], [2:0-0-14,0-10-7], [6:0-5-14,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.24	10-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.39	10-12	>982	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.07	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 228 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 6-12,10-6:2x4 SP No.2
WEDGE Left: 2x4 SP No.3
SLIDER Right 2x6 SP No.2 -- 1-6-0

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

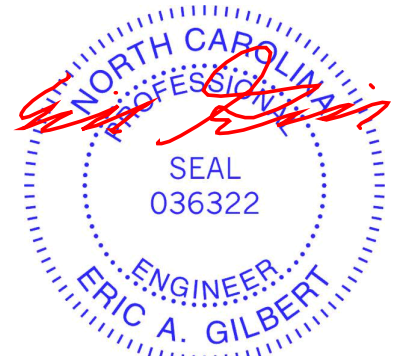
REACTIONS (lb/size) 2=1311/0-3-8, 9=1271/ Mechanical
Max Horiz 2=250 (LC 11)
Max Uplift 2=-152 (LC 14), 9=-82 (LC 15)
Max Grav 2=1446 (LC 5), 9=1425 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/18, 2-3=-2429/281, 3-4=-2158/232, 4-6=-2302/425, 6-7=-1668/288, 7-9=-1796/224
BOT CHORD 2-12=-338/2146, 10-12=-32/1083, 9-10=-94/1334
WEBS 4-12=-576/274, 3-12=-407/205, 6-12=-313/1428, 6-10=-93/636, 7-10=-289/248

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) -0-7-14 to 2-6-5, Interior (1) 2-6-5 to 16-4-12, Exterior(2R) 16-4-12 to 22-9-1, Interior (1) 22-9-1 to 28-7-6, Exterior(2E) 28-7-6 to 31-9-8 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 82 lb uplift at joint 9.
- 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



May 5, 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



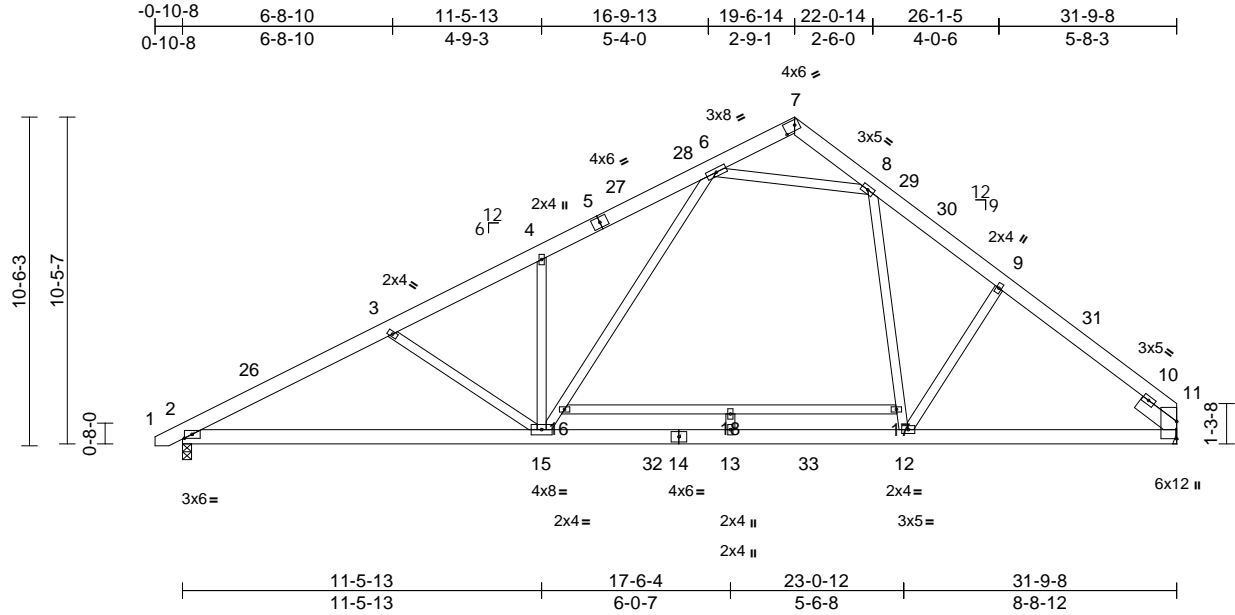
818 Soundside Road
Edenton, NC 27932

Job 22040113	Truss A02	Truss Type Roof Special	Qty 7	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773811
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:73.7
Plate Offsets (X, Y): [2:0-2-14,0-1-8], [7:0-4-4,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.19	15-25	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.36	13-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.08	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 243 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 16-17:2x4 SP No.2
SLIDER Right 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

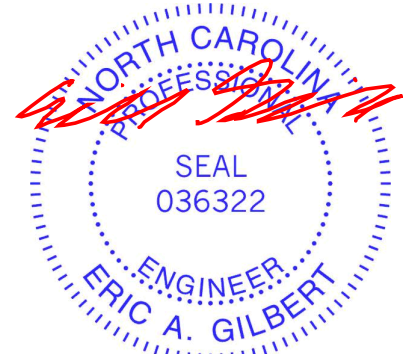
REACTIONS (lb/size) 2=1401/0-3-8, 11=1382/
Mechanical
Max Horiz 2=250 (LC 11)
Max Uplift 2=63 (LC 14)
Max Grav 2=1424 (LC 21), 11=1382 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/18, 2-3=-2446/60, 3-4=-2144/12,
4-6=-2225/129, 6-7=-159/92, 7-8=-207/68,
8-9=-1619/76, 9-11=-1792/34
BOT CHORD 2-15=-146/2116, 13-15=0/1246,
12-13=0/1246, 11-12=0/1296
WEBS 4-15=-480/242, 3-15=-319/191,
15-16=-113/1135, 6-16=-97/1141,
8-17=0/475, 12-17=0/455, 9-12=-172/257,
16-18=-7/12, 17-18=-7/12, 13-18=0/41,
6-8=-1255/126

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) -0-7-14 to 2-6-5, Interior (1) 2-6-5 to 16-4-12, Exterior(2R) 16-4-12 to 22-9-1, Interior (1) 22-9-1 to 28-7-6, Exterior(2E) 28-7-6 to 31-9-8 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, 17-6-8 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.
- 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



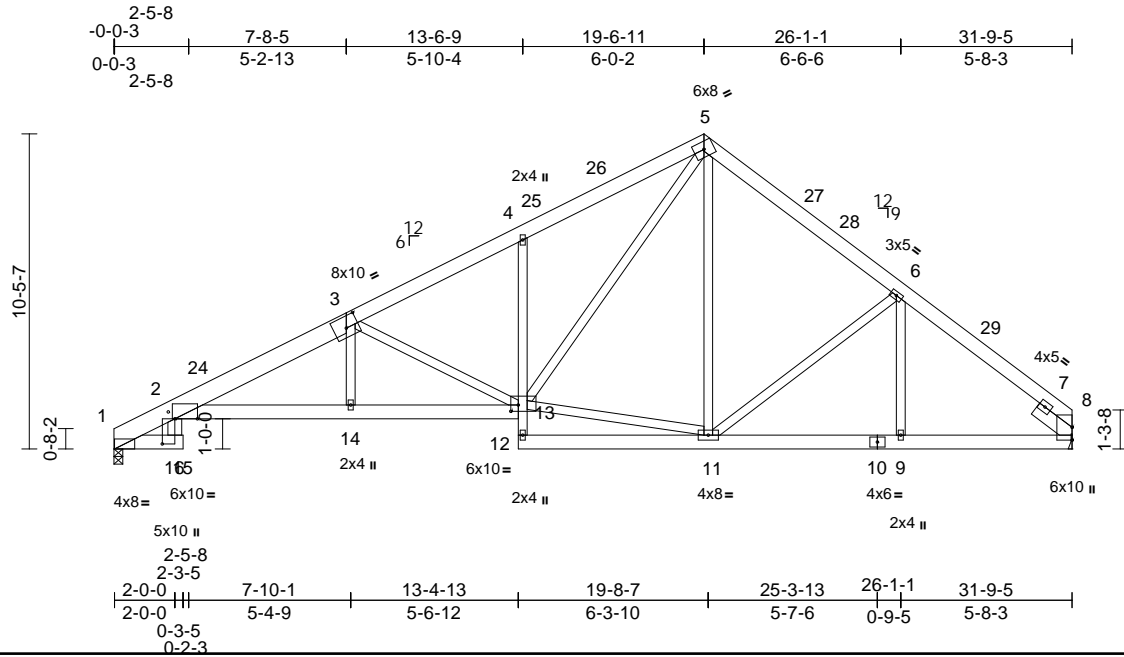
May 5, 2022

Job 22040113	Truss A03	Truss Type Roof Special	Qty 6	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773812
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:76.5

Plate Offsets (X, Y): [2:0-9-0,Edge], [2:1-0-12,0-2-6], [3:0-5-0,0-4-8], [13:0-3-0,0-2-8]

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	0.49	Vert(LL)	-0.14	2-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.29	2-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.16	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 254 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 1-3:2x8 SP 2400F 2.0E
BOT CHORD 2x6 SP No.2 *Except* 2-13:2x6 SP 2400F 2.0E, 4-12:2x4 SP No.3
WEBS 2x4 SP No.3 *Except* 13-5:2x4 SP No.2, 2-16:2x6 SP No.2
SLIDER Right 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-16.

REACTIONS (lb/size) 1=1280/0-3-8, 8=1272/ Mechanical
Max Horiz 1=246 (LC 11)
Max Uplift 1=-134 (LC 14), 8=-81 (LC 15)
Max Grav 1=1303 (LC 20), 8=1272 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-659/134, 2-4=-2923/342, 4-5=-2048/378, 5-6=-1356/266, 6-8=-1593/211
BOT CHORD 1-16=-85/321, 15-16=0/0, 2-14=-393/2645, 13-14=-391/2660, 12-13=0/106, 4-13=-431/203, 11-12=-11/157, 9-11=-84/1180, 8-9=-84/1180
WEBS 3-14=0/400, 3-13=-1060/228, 11-13=-12/844, 5-13=-291/1329, 5-11=-67/302, 6-11=-315/208, 6-9=-3/146, 2-16=-57/388

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) 0-0-3 to 3-2-6, Interior (1) 3-2-6 to 16-4-12, Exterior(2R) 16-4-12 to 22-9-1, Interior (1) 22-9-1 to 28-7-6, Exterior(2E) 28-7-6 to 31-9-8 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 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.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 8.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. 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



May 5, 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



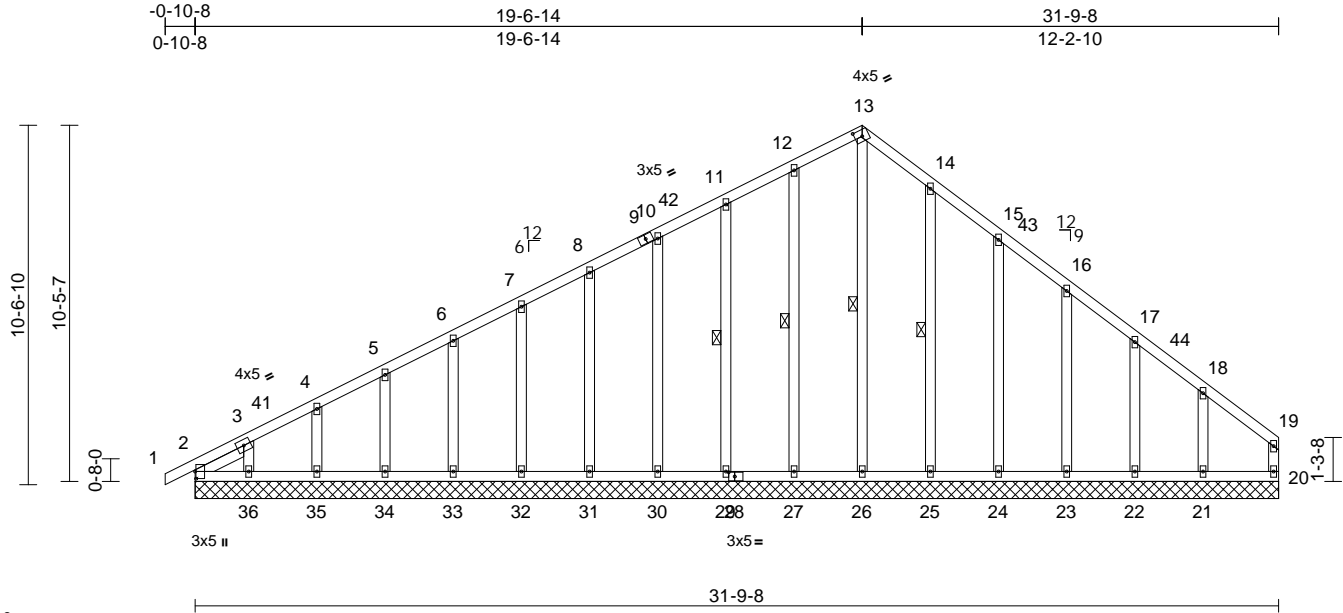
818 Soundside Road
Edenton, NC 27932

Job 22040113	Truss A04	Truss Type Roof Special Supported Gable	Qty 2	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773813
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:67.6

Plate Offsets (X, Y): [2:0-2-8,0-0-5], [13:0-2-10,0-2-4], [28:0-2-2,0-1-8]

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.00	20	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 229 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
SLIDER Left 2x4 SP No.3 -- 1-7-7

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 13-26, 12-27, 11-29, 14-25

REACTIONS (lb/size)
2=126/31-9-8, 20=84/31-9-8,
21=174/31-9-8, 22=156/31-9-8,
23=161/31-9-8, 24=159/31-9-8,
25=166/31-9-8, 26=135/31-9-8,
27=165/31-9-8, 29=159/31-9-8,
30=160/31-9-8, 31=160/31-9-8,
32=160/31-9-8, 33=160/31-9-8,
34=159/31-9-8, 35=164/31-9-8,
36=136/31-9-8, 37=126/31-9-8
Max Horiz 2=271 (LC 13), 37=271 (LC 13)
Max Uplift 2=-52 (LC 15), 21=-124 (LC 15),
22=-52 (LC 15), 23=-69 (LC 15),
24=-72 (LC 15), 25=-57 (LC 15),
26=-40 (LC 13), 27=-35 (LC 14),
29=-48 (LC 14), 30=-43 (LC 14),
31=-44 (LC 14), 32=-44 (LC 14),
33=-44 (LC 14), 34=-44 (LC 14),
35=-43 (LC 14), 36=-83 (LC 14),
37=-52 (LC 15)

Max Grav 2=205 (LC 25), 20=97 (LC 27),
21=210 (LC 25), 22=161 (LC 25),
23=173 (LC 25), 24=220 (LC 22),
25=266 (LC 22), 26=283 (LC 15),
27=244 (LC 21), 29=228 (LC 21),
30=175 (LC 21), 31=160 (LC 34),
32=160 (LC 21), 33=160 (LC 1),
34=159 (LC 21), 35=164 (LC 1),
36=137 (LC 34), 37=205 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-109/46, 3-4=-239/112,
4-5=-226/131, 5-6=-212/154, 6-7=-199/178,
7-8=-186/206, 8-10=-172/251,
10-11=-159/296, 11-12=-147/344,
12-13=-149/380, 13-14=-164/415,
14-15=-135/349, 15-16=-105/268,
16-17=-79/192, 17-18=-56/118,
18-19=-80/36, 19-20=-66/15
BOT CHORD 2-36=-42/81, 35-36=-42/81, 34-35=-42/81,
33-34=-42/81, 32-33=-42/81, 31-32=-42/81,
30-31=-42/81, 29-30=-42/81, 27-29=-42/81,
26-27=-42/81, 25-26=-42/81, 24-25=-42/81,
23-24=-42/81, 22-23=-42/81, 21-22=-42/81,
20-21=-42/81
WEBS 13-26=-339/98, 12-27=-204/59,
11-29=-188/86, 10-30=-135/76,
8-31=-120/78, 7-32=-120/77, 6-33=-120/77,
5-34=-119/76, 4-35=-123/81, 3-36=-100/103,
14-25=-226/87, 15-24=-180/111,
16-23=-132/102, 17-22=-125/99,
18-21=-154/198

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 2-3-10, Exterior (2N) 2-3-10 to 16-4-12, Corner(3R) 16-4-12 to 22-9-1, Exterior(2N) 22-9-1 to 28-5-10, Corner(3E) 28-5-10 to 31-7-12 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; Pf=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
- Unbalanced snow loads have been considered for this design.



May 5, 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 22040113	Truss A04	Truss Type Roof Special Supported Gable	Qty 2	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773813
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:11
ID:wSfeYGx?zDlrK7PgnUXd7GyEOeQ-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

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 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.
- 12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 25, 24, 23, 22, and 21. This connection is for uplift only and does not consider lateral forces.
- 13) 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

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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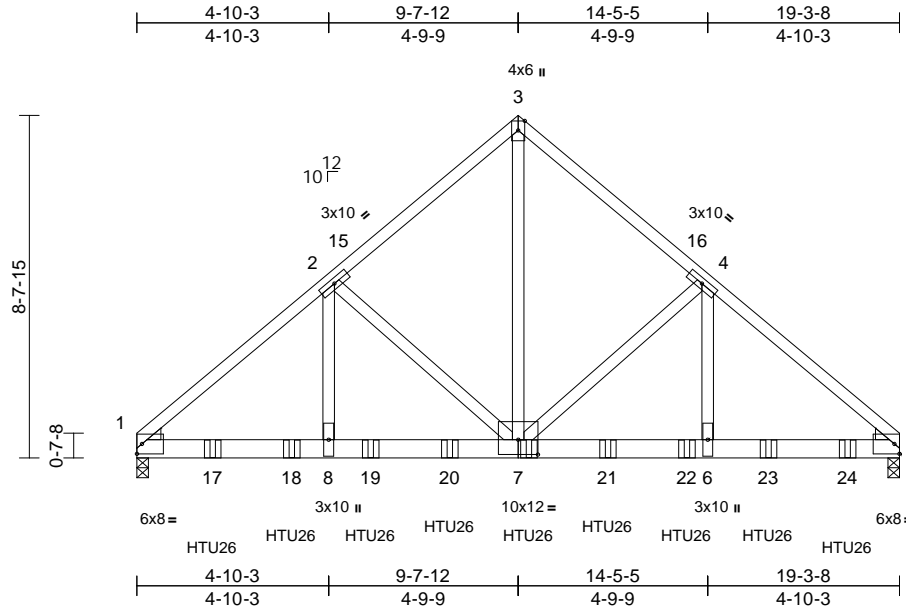
818 Soundside Road
Edenton, NC 27932

Job 22040113	Truss B01	Truss Type Common Girder	Qty 1	Ply 2	DRB GROUP - 119 FaNC Job Reference (optional)	I51773814
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:11
ID:pVQbySBA1gxSLMVjWOPYUhyEOe5-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?

Page: 1



Scale = 1:58.3
Plate Offsets (X, Y): [7:0-6-0,0-4-8]

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	0.66	Vert(LL)	-0.10	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.19	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.03	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 251 lb	FT = 20%

LUMBER	TOP CHORD	BOT CHORD	WEBS	WEDGE	BRACING	TOP CHORD	BOT CHORD	REACTIONS	FORCES	TOP CHORD	BOT CHORD	WEBS	NOTES									
2x4 SP No.2	2x6 SP 2400F 2.0E	2x4 SP No.3 *Except* 7-3:2x4 SP No.2	Left: 2x4 SP No.3	Right: 2x4 SP No.3	Structural wood sheathing directly applied or 4-0-7 oc purlins.	Rigid ceiling directly applied or 10-0-0 oc bracing.	(lb/size) 1=6260/0-3-8, 5=6725/0-3-8	1-2=-8020/402, 2-3=-5561/310, 3-4=-5563/307, 4-5=-8045/0	1-2=-8020/402, 2-3=-5561/310, 3-4=-5563/307, 4-5=-8045/0	1-8=-346/6101, 6-8=-346/6140, 5-6=-31/6140	3-7=-280/6631, 4-7=-2640/0, 4-6=0/3038, 2-7=-2588/325, 2-8=-165/2988	2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc. Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc. Web connected as follows: 2x4 - 1 row at 0-9-0 oc.										
Max Horiz 1=-183 (LC 10)	Max Uplift 1=-325 (LC 12)	Max Grav 1=6306 (LC 18), 5=6771 (LC 19)	(lb) - Maximum Compression/Maximum Tension	1-2=-8020/402, 2-3=-5561/310, 3-4=-5563/307, 4-5=-8045/0	1-8=-346/6101, 6-8=-346/6140, 5-6=-31/6140	3-7=-280/6631, 4-7=-2640/0, 4-6=0/3038, 2-7=-2588/325, 2-8=-165/2988	3) Unbalanced roof live loads have been considered for this design.	4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=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	5) 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	6) Unbalanced snow loads have been considered for this design.	7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.	9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. 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.	11) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-12 oc max. starting at 1-11-0 from the left end to 17-11-12 to connect truss(es) to back face of bottom chord.	12) Fill all nail holes where hanger is in contact with lumber.	LOAD CASE(S) Standard	1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15	Uniform Loads (lb/ft)	Vert: 1-3=-58, 3-5=-58, 9-12=-19	Concentrated Loads (lb)	Vert: 7=-1252 (B), 17=-1252 (B), 18=-1252 (B), 19=-1252 (B), 20=-1252 (B), 21=-1252 (B), 22=-1252 (B), 23=-1362 (B), 24=-1362 (B)



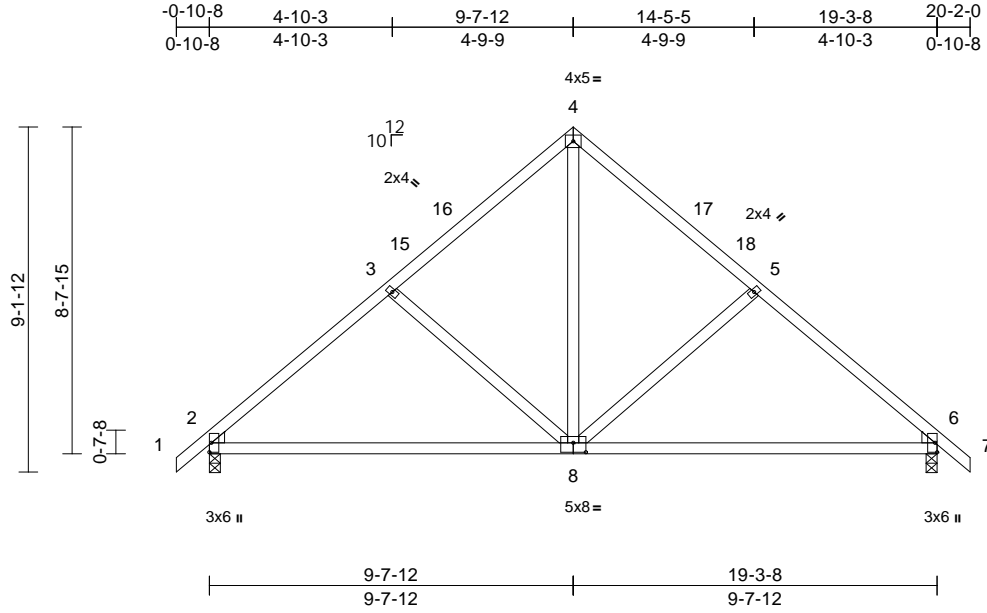
May 5, 2022

Job 22040113	Truss B02	Truss Type Common	Qty 5	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	151773815
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:12
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Page: 1



Scale = 1:61.1

Plate Offsets (X, Y): [8:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.13	8-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.26	8-11	>897	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 101 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
 Right: 2x4 SP No.3

BRACING

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

REACTIONS

(lb/size) 2=824/0-3-8, 6=824/0-3-8
 Max Horiz 2=-206 (LC 12)
 Max Uplift 2=-73 (LC 14), 6=-73 (LC 15)
 Max Grav 2=872 (LC 21), 6=872 (LC 22)

FORCES

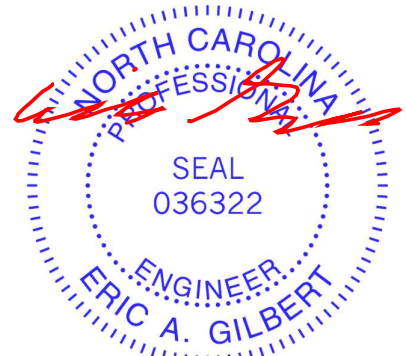
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/34, 2-3=-1005/137, 3-4=-785/151,
 4-5=-785/151, 5-6=-1005/137, 6-7=0/34
 BOT CHORD 2-6=-136/727
 WEBS 4-8=-67/556, 5-8=-325/198, 3-8=-325/198

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-7-12, Exterior(2R) 6-7-12 to 12-7-12, Interior (1) 12-7-12 to 17-2-0, Exterior(2E) 17-2-0 to 20-2-0 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

- 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * 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.
- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
- 9) 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



May 5, 2022

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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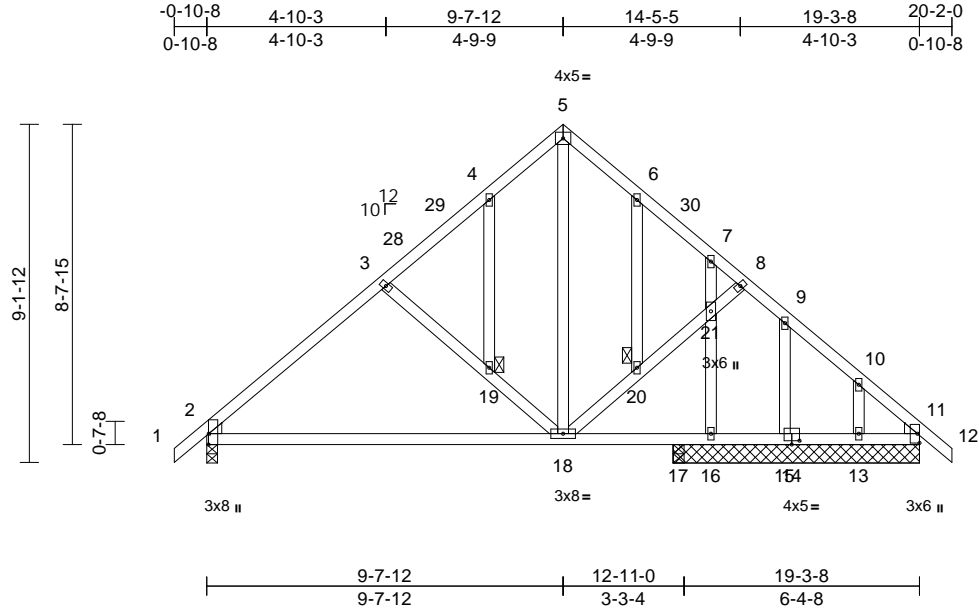
818 Soundside Road
 Edenton, NC 27932

Job 22040113	Truss B03	Truss Type Common Structural Gable	Qty 1	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773816
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:12
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Page: 1



Scale = 1:62.4

Plate Offsets (X, Y): [2:0-3-8,Edge], [14:0-2-8,0-1-4]

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	0.38	Vert(LL)	-0.16	18-24	>987	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.32	18-24	>484	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 129 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
WEDGE	Left: 2x4 SP No.3 Right: 2x4 SP No.3

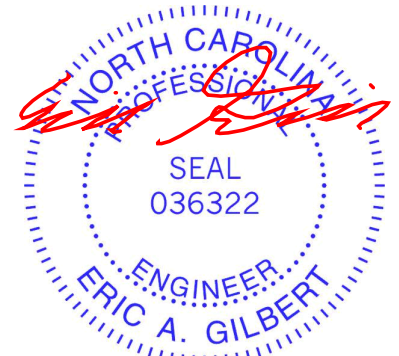
WEBS	
5-18	=49/336, 18-20=-3/243, 20-21=-7/243,
8-21	=5/221, 3-19=-296/177,
18-19	=-348/200, 4-19=-80/36, 6-20=-92/43,
7-21	=-360/86, 16-21=-492/128,
9-15	=-220/38, 10-13=-98/118

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.

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(s): 19, 20
REACTIONS (lb/size)	
	2=631/0-3-8, 11=231/6-8-0, 13=91/6-8-0, 15=261/6-8-0, 16=417/6-8-0, 17=-34/0-3-8, 25=231/6-8-0
Max Horiz	2=-199 (LC 12)
Max Uplift	2=-47 (LC 14), 13=-120 (LC 15), 15=-14 (LC 14), 16=-88 (LC 15), 17=-109 (LC 7)
Max Grav	2=705 (LC 21), 11=240 (LC 28), 13=132 (LC 25), 15=261 (LC 1), 16=553 (LC 22), 17=-15 (LC 21), 25=240 (LC 28)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/33, 2-3=-740/71, 3-4=-522/60, 4-5=-391/98, 5-6=-383/113, 6-7=-426/91, 7-8=-289/39, 8-9=-257/27, 9-10=-185/16, 10-11=-224/23, 11-12=0/33
BOT CHORD	2-18=-141/539, 17-18=-10/184, 16-17=-10/184, 15-16=-10/184, 13-15=-10/184, 11-13=-10/184

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 6-7-12, Exterior(2R) 6-7-12 to 12-7-12, Interior (1) 12-7-12 to 17-2-0, Exterior(2E) 17-2-0 to 20-2-0 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 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.



May 5, 2022

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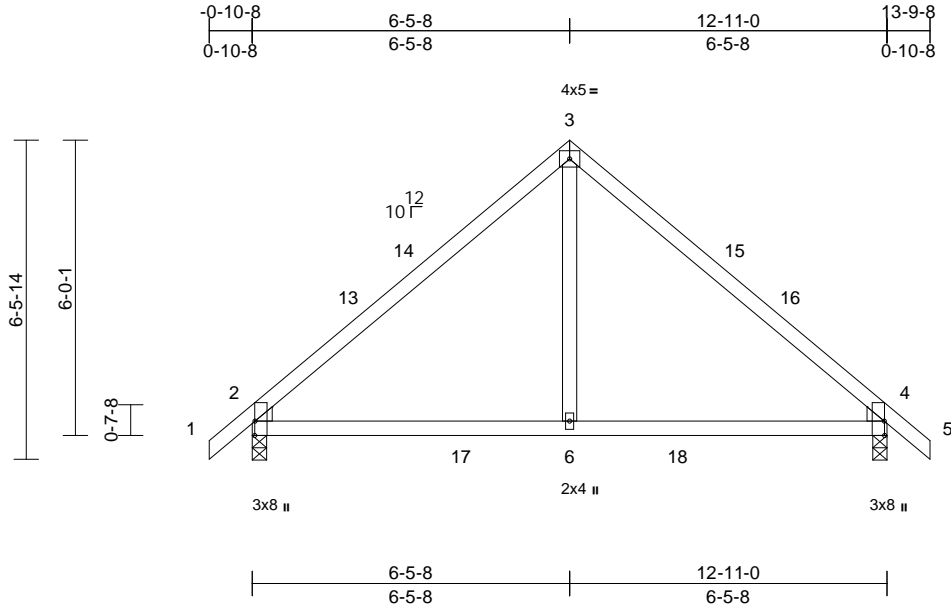
818 Soundside Road
Edenton, NC 27932

Job 22040113	Truss C01	Truss Type Common	Qty 2	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	151773817
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:13
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Page: 1



Scale = 1:46.9

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.09	6-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.13	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.03	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 57 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
 Right: 2x4 SP No.3

BRACING

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

REACTIONS

(lb/size) 2=569/0-3-8, 4=569/0-3-8
 Max Horiz 2=-143 (LC 12)
 Max Uplift 2=-54 (LC 14), 4=-54 (LC 15)
 Max Grav 2=686 (LC 5), 4=686 (LC 6)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/34, 2-3=-671/145, 3-4=-671/145, 4-5=0/34
 BOT CHORD 2-6=-116/456, 4-6=-41/456
 WEBS 3-6=0/374

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-5-8, Exterior(2R) 3-5-8 to 9-5-8, Interior (1) 9-5-8 to 10-9-8, Exterior(2E) 10-9-8 to 13-9-8 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

- 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * 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.
- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
- 9) 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



May 5, 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



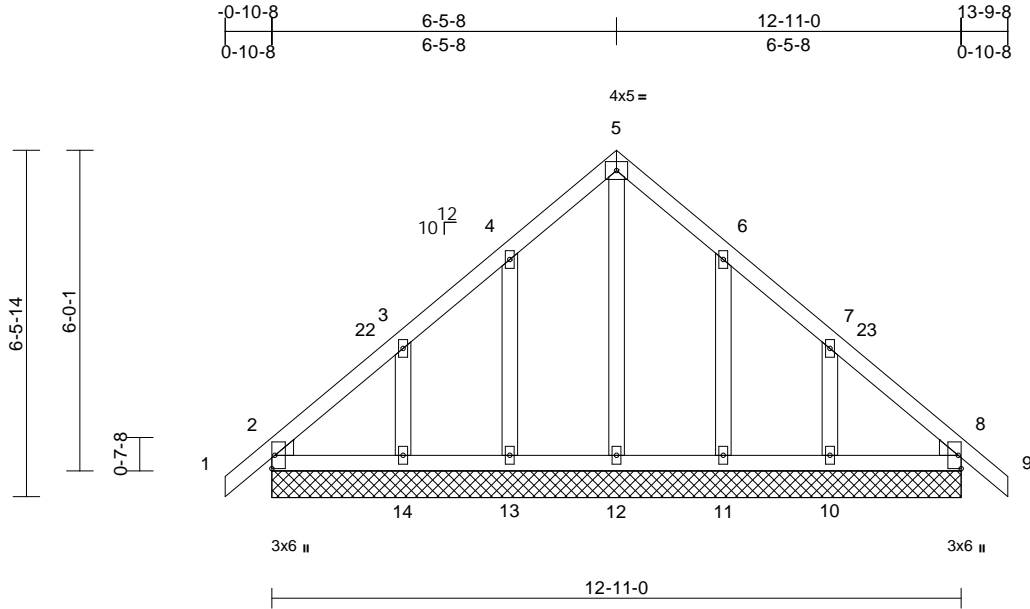
818 Soundside Road
 Edenton, NC 27932

Job 22040113	Truss C02	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773818
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:13
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Page: 1



Scale = 1:43.2

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	0.08	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	0.09	Horz(CT)	0.00	8	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
WEDGE	Left: 2x4 SP No.3 Right: 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)	
	2=169/12-11-0, 8=169/12-11-0, 10=181/12-11-0, 11=152/12-11-0, 12=100/12-11-0, 13=152/12-11-0, 14=181/12-11-0, 15=169/12-11-0, 19=169/12-11-0
Max Horiz	2=-139 (LC 12), 15=-139 (LC 12)
Max Uplift	2=-20 (LC 10), 10=-108 (LC 15), 11=-66 (LC 15), 13=-65 (LC 14), 14=-112 (LC 14), 15=-20 (LC 10)
Max Grav	2=173 (LC 25), 8=169 (LC 1), 10=221 (LC 22), 11=256 (LC 22), 12=136 (LC 31), 13=256 (LC 21), 14=221 (LC 21), 15=173 (LC 25), 19=169 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/33, 2-3=-123/85, 3-4=-108/85, 4-5=-113/179, 5-6=-113/179, 6-7=-102/85, 7-8=-96/48, 8-9=0/33
BOT CHORD	2-14=-77/144, 13-14=-42/144, 12-13=-42/144, 11-12=-42/144, 10-11=-42/144, 8-10=-42/144
WEBS	5-12=-151/47, 4-13=-222/124, 3-14=-170/163, 6-11=-222/124, 7-10=-170/163

- 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 3-5-8, Corner(3R) 3-5-8 to 9-5-8, Exterior(2N) 9-5-8 to 10-9-8, Corner(3E) 10-9-8 to 13-9-8 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
- 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.
- 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.



May 5, 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



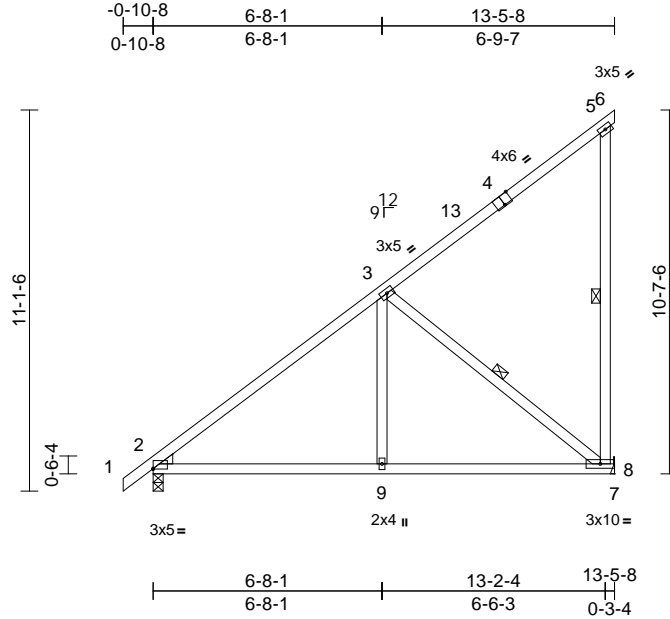
818 Soundside Road
Edenton, NC 27932

Job 22040113	Truss D01	Truss Type Monopitch	Qty 10	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773819
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:13
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Page: 1



Scale = 1:67.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.06	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.10	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 81 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 5-8:2x4 SP No.2
 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, 3-8

REACTIONS (lb/size) 2=582/0-3-8, 8=548/ Mechanical
 Max Horiz 2=372 (LC 13)
 Max Uplift 2=-24 (LC 14), 8=-162 (LC 14)
 Max Grav 2=609 (LC 21), 8=710 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

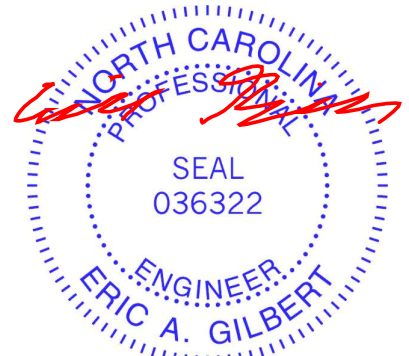
TOP CHORD 1-2=0/32, 2-3=-657/110, 3-5=-255/151, 5-6=-17/0, 5-8=-299/101
 BOT CHORD 2-9=-277/471, 8-9=-127/471, 7-8=0/0
 WEBS 3-9=0/306, 3-8=-558/222

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 10-5-8, Exterior(2E) 10-5-8 to 13-5-8 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
- 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 162 lb uplift at joint 8.
- 9) One RT8A MiTek 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



May 5,2022

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



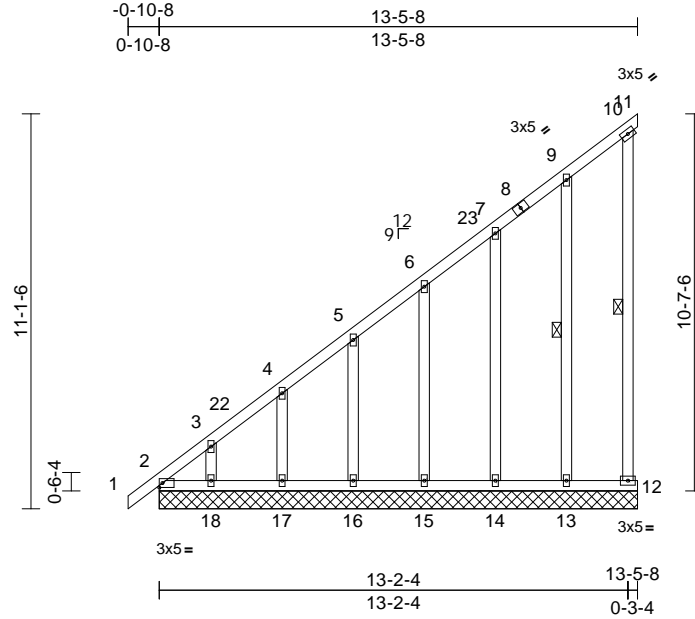
818 Soundside Road
 Edenton, NC 27932

Job 22040113	Truss D02	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773820
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:14
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Page: 1



Scale = 1:64.8

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL		TC	0.76	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	-0.01	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 105 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
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.
WEBS	1 Row at midpt 10-12, 9-13

REACTIONS	
(lb/size)	2=110/13-5-8, 11=12/13-5-8, 12=57/13-5-8, 13=157/13-5-8, 14=156/13-5-8, 15=155/13-5-8, 16=154/13-5-8, 17=161/13-5-8, 18=127/13-5-8, 19=110/13-5-8
Max Horiz	2=360 (LC 11), 19=360 (LC 11)
Max Uplift	2=94 (LC 10), 11=120 (LC 14), 12=255 (LC 13), 13=82 (LC 14), 14=60 (LC 14), 15=67 (LC 14), 16=65 (LC 14), 17=58 (LC 14), 18=102 (LC 14), 19=94 (LC 10)
Max Grav	2=243 (LC 11), 11=157 (LC 13), 12=225 (LC 10), 13=246 (LC 21), 14=213 (LC 21), 15=164 (LC 24), 16=166 (LC 24), 17=167 (LC 28), 18=162 (LC 28), 19=243 (LC 11)

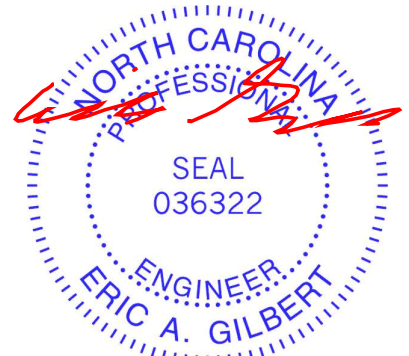
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/31, 2-3=-348/223, 3-4=-306/198, 4-5=-270/174, 5-6=-235/150, 6-7=-215/137, 7-9=-205/140, 9-10=-138/140, 10-11=-151/119, 10-12=-232/180
BOT CHORD	2-18=-215/185, 17-18=-147/185, 16-17=-147/185, 15-16=-147/185, 14-15=-147/185, 13-14=-147/185, 12-13=-147/185

WEBS	
9-13	=206/87, 7-14=-174/142, 6-15=-127/113, 5-16=-126/117, 4-17=-129/119, 3-18=-117/132

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 13-5-8 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
- 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 requires continuous bottom chord bearing.
- 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.
- 11) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 120 lb uplift at joint 11.



May 5, 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



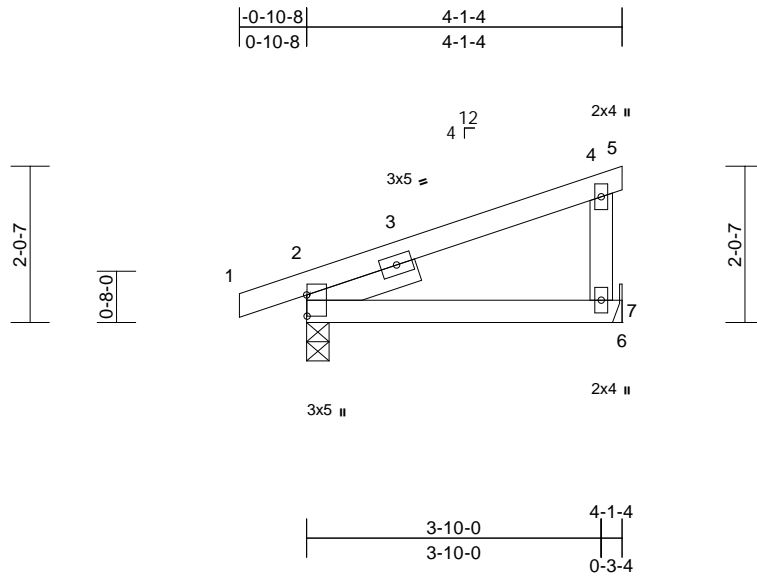
818 Soundside Road
Edenton, NC 27932

Job 22040113	Truss E01	Truss Type Monopitch	Qty 3	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773821
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:14
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Page: 1



Scale = 1:30

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

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	0.27	Vert(LL)	0.02	7-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.03	7-10	>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							Weight: 18 lb	FT = 20%
BCDL	10.0											

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=211/0-3-8, 7=170/ Mechanical
Max Horiz 2=68 (LC 13)
Max Uplift 2=-53 (LC 10), 7=-32 (LC 14)
Max Grav 2=295 (LC 21), 7=231 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-4=-130/36, 4-5=-8/0,
4-7=-166/105
BOT CHORD 2-7=-116/114, 6-7=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 32 lb uplift at joint 7.
- 9) 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.
- 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



May 5, 2022

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

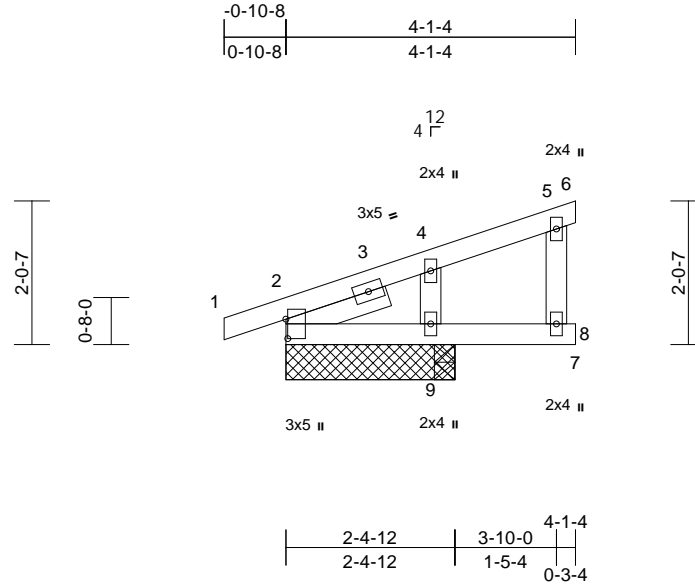
818 Soundside Road
Edenton, NC 27932

Job 22040113	Truss E02	Truss Type Monopitch Structural Gable	Qty 1	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773822
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:32.6

Plate Offsets (X, Y): [2:0-3-5,0-0-5]

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	0.26	Vert(LL)	0.00	9-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	0.00	9-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	2	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
SLIDER Left 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=64/2-4-12, 9=317/0-3-8, 10=64/2-4-12
Max Horiz 2=68 (LC 13), 10=68 (LC 13)
Max Uplift 2=-26 (LC 10), 9=-72 (LC 11), 10=-26 (LC 10)
Max Grav 2=94 (LC 21), 9=431 (LC 21), 10=94 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-4=-153/134, 4-5=-46/29, 5-6=-8/0, 5-8=-38/18
BOT CHORD 2-9=-28/31, 8-9=-28/31, 7-8=0/0
WEBS 4-9=-264/236

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) 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.
- 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.



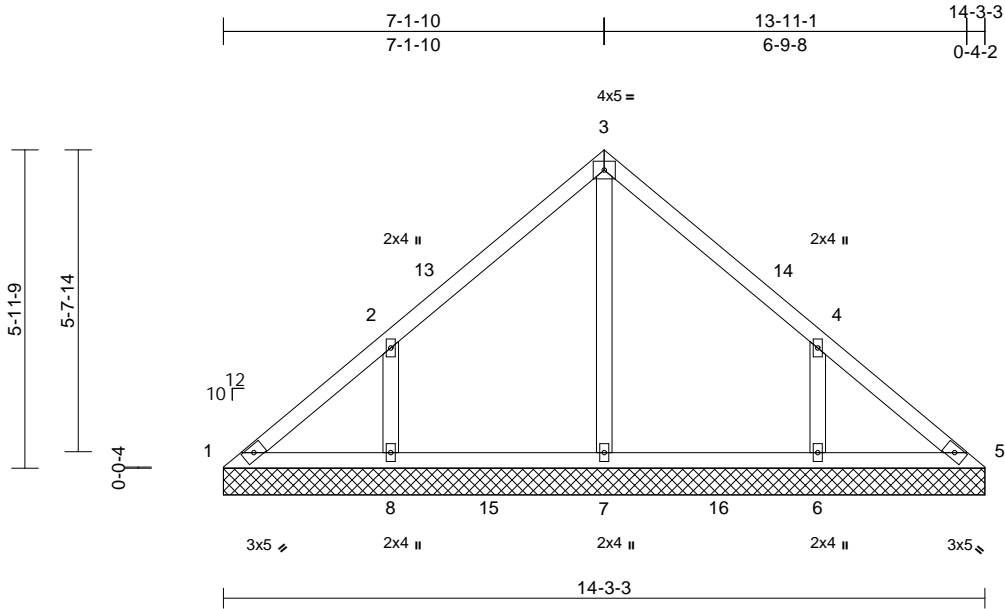
May 5, 2022

Job 22040113	Truss V1	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773823
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:14
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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	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 62 lb	FT = 20%	

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

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

REACTIONS (lb/size)
1=94/14-3-3, 5=94/14-3-3,
6=333/14-3-3, 7=288/14-3-3,
8=333/14-3-3
Max Horiz 1=-136 (LC 10)
Max Uplift 1=-24 (LC 10), 6=-153 (LC 15),
8=-156 (LC 14)
Max Grav 1=123 (LC 24), 5=98 (LC 23),
6=452 (LC 21), 7=397 (LC 23),
8=452 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-151/135, 2-3=-180/118, 3-4=-180/112,
4-5=-121/100
BOT CHORD 1-8=-57/124, 7-8=-57/98, 6-7=-57/98,
5-6=-57/98
WEBS 3-7=-219/0, 2-8=-374/195, 4-6=-374/194

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 3-1-14, Interior (1) 3-1-14 to 4-1-14, Exterior(2R) 4-1-14 to 10-1-14, Interior (1) 10-1-14 to 11-1-14, Exterior(2E) 11-1-14 to 14-3-8 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

- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1.



May 5, 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



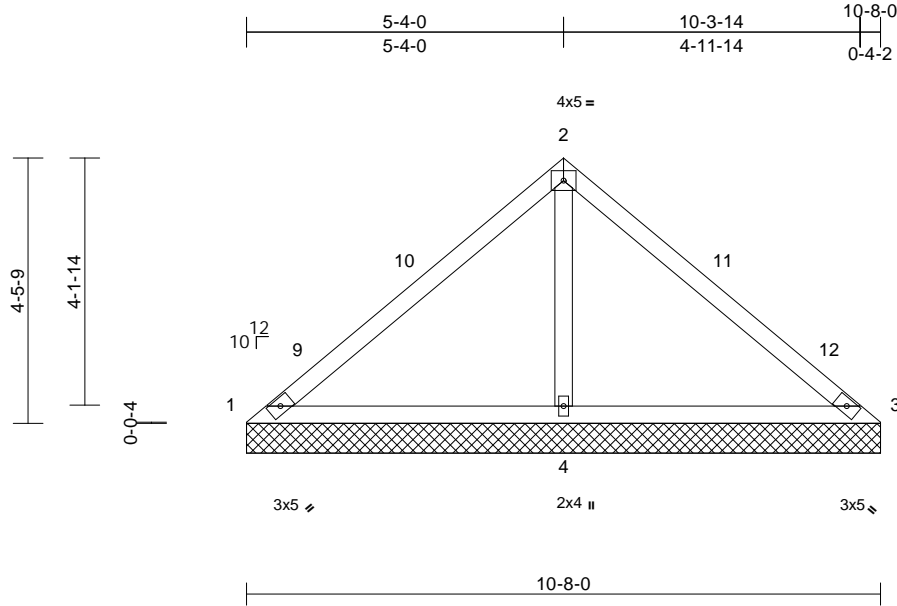
818 Soundside Road
Edenton, NC 27932

Job 22040113	Truss V2	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	151773824
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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	0.56	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.50	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 41 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=15/10-8-0, 3=15/10-8-0, 4=823/10-8-0
Max Horiz 1=-100 (LC 12)
Max Uplift 1=-70 (LC 21), 3=-70 (LC 20), 4=-133 (LC 14)
Max Grav 1=78 (LC 20), 3=78 (LC 21), 4=886 (LC 20)

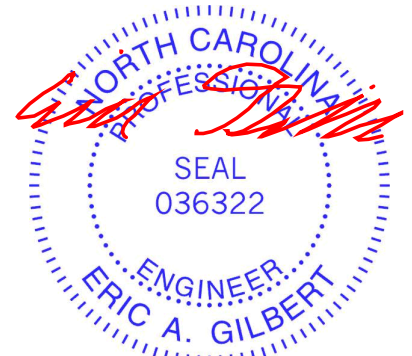
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-139/440, 2-3=-139/440
BOT CHORD 1-4=-255/194, 3-4=-255/194
WEBS 2-4=-695/306

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, Exterior(2R) 3-0-5 to 7-8-5, Exterior(2E) 7-8-5 to 10-8-5 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 70 lb uplift at joint 1 and 70 lb uplift at joint 3.



May 5, 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



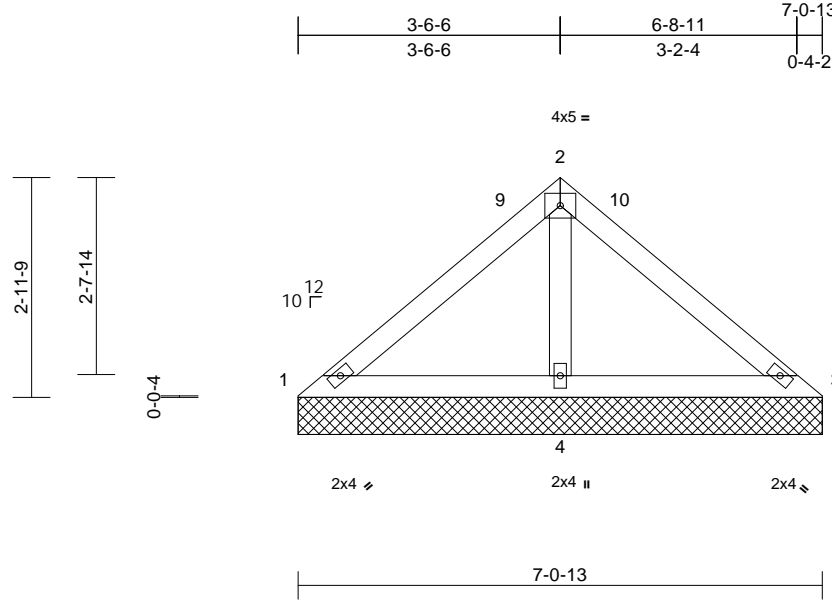
818 Soundside Road
Edenton, NC 27932

Job 22040113	Truss V3	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 119 FaNC Job Reference (optional)	I51773825
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Thu May 05 09:43:15
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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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	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
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 7-0-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 1=42/7-0-13, 3=42/7-0-13, 4=481/7-0-13
Max Horiz 1=65 (LC 13)
Max Uplift 1=-14 (LC 21), 3=-14 (LC 20), 4=-70 (LC 14)
Max Grav 1=104 (LC 20), 3=104 (LC 21), 4=513 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-85/218, 2-3=-85/218
BOT CHORD 1-4=-154/147, 3-4=-154/147
WEBS 2-4=-363/192

- 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 14 lb uplift at joint 1 and 14 lb uplift at joint 3.

- 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 4-1-2, Exterior(2E) 4-1-2 to 7-1-2 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.



May 5, 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

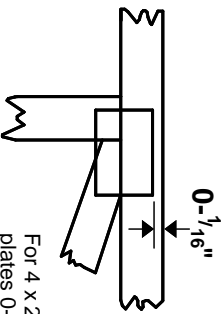
818 Soundside Road
Edenton, NC 27932

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

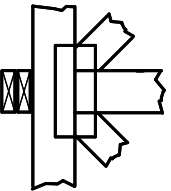
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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
BCSI: 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. Reviewing 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.