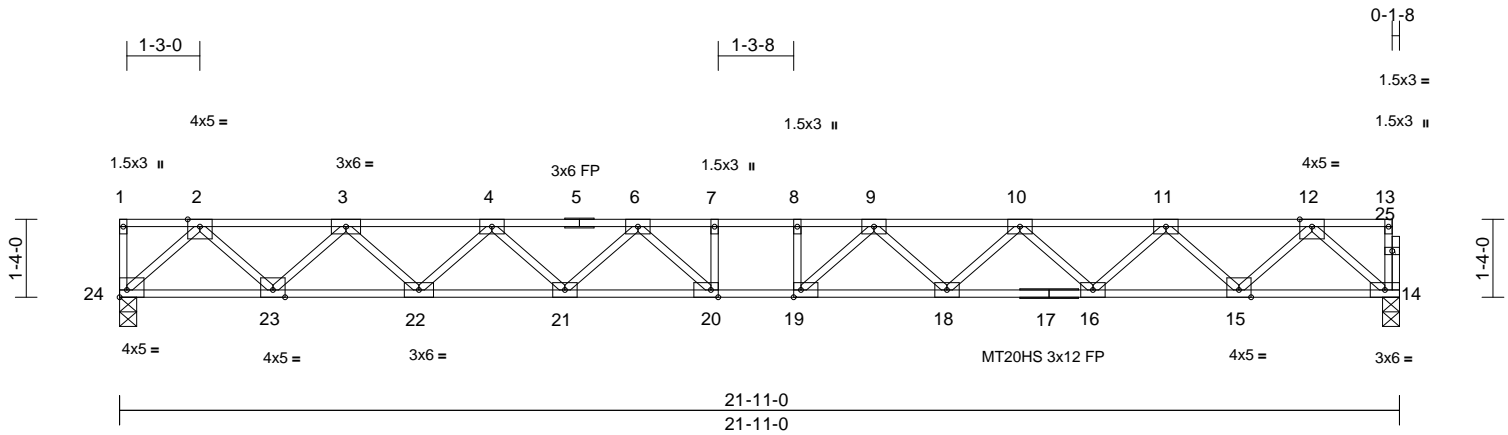


Job 19110027-B	Truss F01	Truss Type Floor	Qty 7	Ply 1	Job Reference (optional) E13785140
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.32 S Oct 29 2019 Print: 8.320 S Oct 29 2019 MiTek Industries, Inc. Wed Nov 20 12:42:25  
ID:SDEzg4cMol9M9GBGtpj1FeyHM9S-9RHfprm\_iDHMHj9Qz1\_xTXHOX74Xy5CWtNVhNkyHHhk

Page: 1



Scale = 1:39.5

Plate Offsets (X, Y): [19:0-1-8,Edge], [20:0-1-8,Edge], [24:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.84	Vert(LL)	-0.51	19-20	>509	360	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.99	Vert(CT)	-0.70	19-20	>371	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.11	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH								Weight: 112 lb FT = 20%F, 11%E

**LUMBER**

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

- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

**BRACING**

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

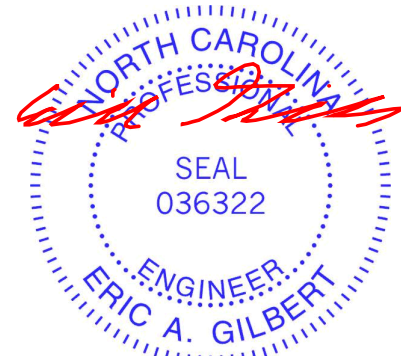
**REACTIONS** (lb/size) 14=1189/0-3-8, 24=1195/0-3-8

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-24=-37/0, 14-25=-37/0, 13-25=-37/0,  
 1-2=0/0, 2-3=-2207/0, 3-4=-3810/0,  
 4-5=-4837/0, 5-6=-4837/0, 6-7=-5341/0,  
 7-8=-5341/0, 8-9=-5341/0, 9-10=-4856/0,  
 10-11=-3843/0, 11-12=-2254/0, 12-13=-2/0  
 BOT CHORD 23-24=0/1244, 22-23=0/3140, 21-22=0/4456,  
 20-21=0/5192, 19-20=0/5341, 18-19=0/5203,  
 17-18=0/4482, 16-17=0/4482, 15-16=0/3180,  
 14-15=0/1298  
 WEBS 12-14=-1725/0, 2-24=-1691/0, 12-15=0/1329,  
 2-23=0/1339, 11-15=-1289/0, 3-23=-1298/0,  
 11-16=0/922, 3-22=0/932, 10-16=-889/0,  
 4-22=-898/0, 10-18=0/521, 4-21=0/530,  
 9-18=-499/0, 6-21=-506/0, 9-19=-232/573,  
 6-20=-221/583, 7-20=-265/60, 8-19=-261/64

**NOTES**

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x5 MT20 unless otherwise indicated.
- All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 20, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



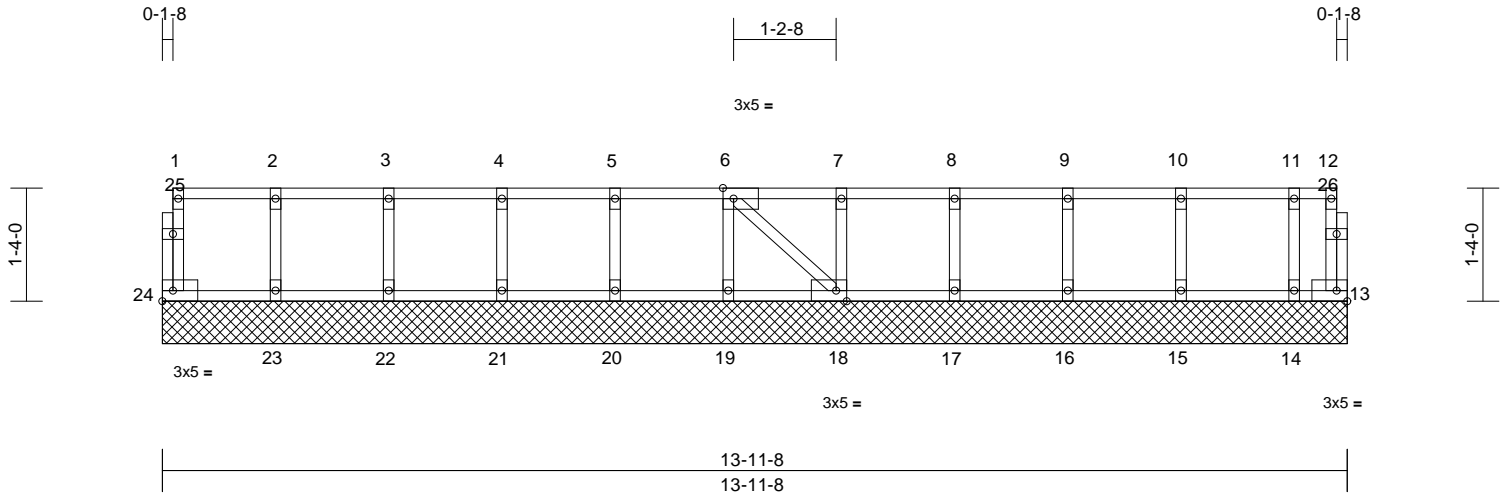
818 Soundside Road  
 Edenton, NC 27932

Job 19110027-B	Truss F02	Truss Type Floor Supported Gable	Qty 1	Ply 1	Job Reference (optional) E13785141
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.32 S Oct 29 2019 Print: 8.320 S Oct 29 2019 MiTek Industries, Inc. Wed Nov 20 12:42:28  
ID:SDEzg4cMol9M9GBGtpj1FeyHM9S-VP4XsYq7XlvNU1Nmaa6Ab\_R580zdVvF1fDS2yyHHf

Page: 1



Scale = 1:27.1

Plate Offsets (X, Y): [6:0-1-8,Edge], [18:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	18	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 66 lb	FT = 20%F, 11%E

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

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

**REACTIONS** (lb/size) 13=-2/13-11-8, 14=120/13-11-8, 15=152/13-11-8, 16=145/13-11-8, 17=147/13-11-8, 18=149/13-11-8, 19=145/13-11-8, 20=147/13-11-8, 21=147/13-11-8, 22=146/13-11-8, 23=152/13-11-8, 24=49/13-11-8  
Max Uplift 13=-2 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 24-25=-44/0, 1-25=-44/0, 13-26=0/3, 12-26=0/3, 1-2=-2/0, 2-3=-2/0, 3-4=-2/0, 4-5=-2/0, 5-6=-2/0, 6-7=0/0, 7-8=0/0, 8-9=0/0, 9-10=0/0, 10-11=0/0, 11-12=0/0  
BOT CHORD 23-24=0/2, 22-23=0/2, 21-22=0/2, 20-21=0/2, 19-20=0/2, 18-19=0/2, 17-18=0/0, 16-17=0/0, 15-16=0/0, 14-15=0/0, 13-14=0/0  
WEBS 2-23=-138/0, 3-22=-133/0, 4-21=-134/0, 5-20=-133/0, 6-19=-131/0, 7-18=-133/0, 8-17=-134/0, 9-16=-132/0, 10-15=-138/0, 11-14=-109/0, 6-18=-3/0

- NOTES**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Gable requires continuous bottom chord bearing.
  - 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 4) Gable studs spaced at 1-4-0 oc.
  - 5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.
- 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard



November 20,2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



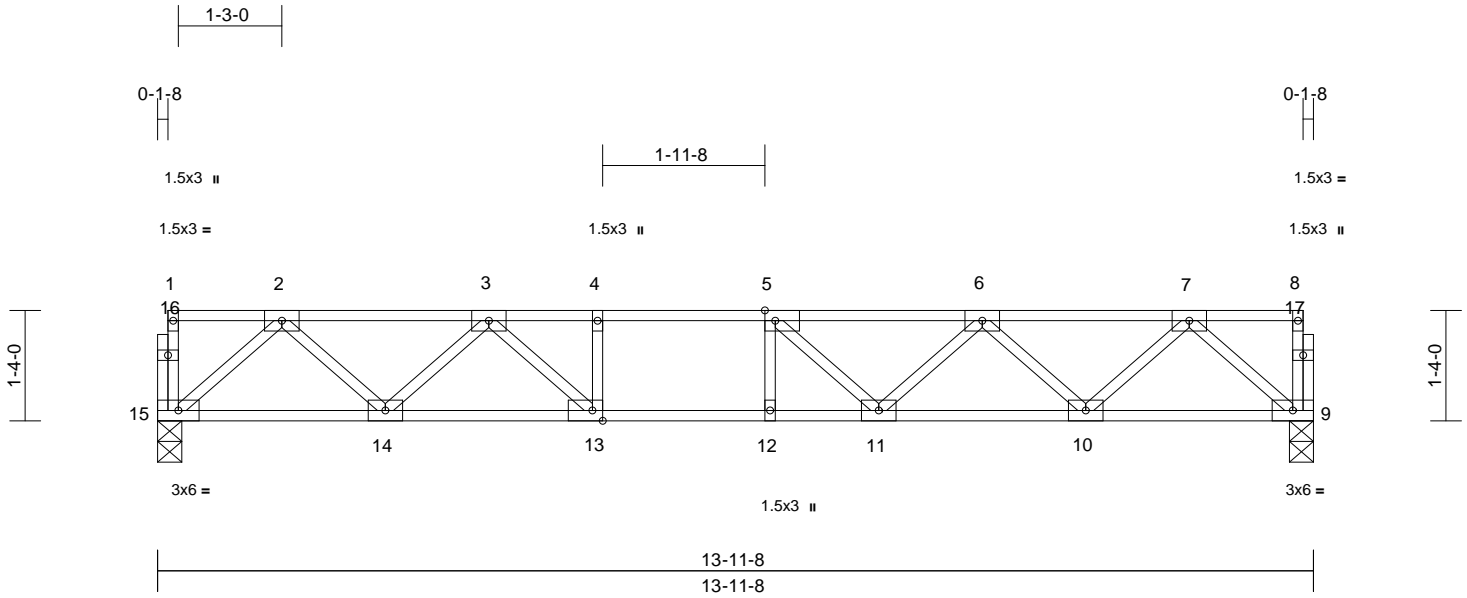
818 Soundside Road  
Edenton, NC 27932

Job 19110027-B	Truss F03	Truss Type Floor	Qty 10	Ply 1	Job Reference (optional) E13785142
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.32 S Oct 29 2019 Print: 8.320 S Oct 29 2019 MiTek Industries, Inc. Wed Nov 20 12:42:29  
ID:SDEzg4cMol9M9GBGtpj1FeyHM9S-zbew3uqll31W?ecZKH5LjoWUIYBOMtOOGJy?bOyHHHe

Page: 1



Scale = 1:27.8

Plate Offsets (X, Y): [5:0-1-8,Edge], [13:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.14	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.18	11-12	>892	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 72 lb	FT = 20%F, 11%E

**LUMBER**

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

**BRACING**

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

**REACTIONS** (lb/size) 9=748/0-3-8, 15=748/0-3-8

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 15-16=-34/0, 1-16=-34/0, 9-17=-42/0, 8-17=-42/0, 1-2=-2/0, 2-3=-1285/0, 3-4=-2093/0, 4-5=-2093/0, 5-6=-1971/0, 6-7=-1301/0, 7-8=-2/0

BOT CHORD 14-15=0/799, 13-14=0/1765, 12-13=0/2093, 11-12=0/2093, 10-11=0/1784, 9-10=0/793

WEBS 7-9=-1053/0, 2-15=-1062/0, 7-10=0/706, 2-14=0/675, 6-10=-672/0, 3-14=-667/0, 6-11=0/333, 3-13=0/607, 5-11=-362/38, 4-13=-265/0, 5-12=-159/72

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x5 MT20 unless otherwise indicated.
- 3) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- 4) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard



November 20,2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

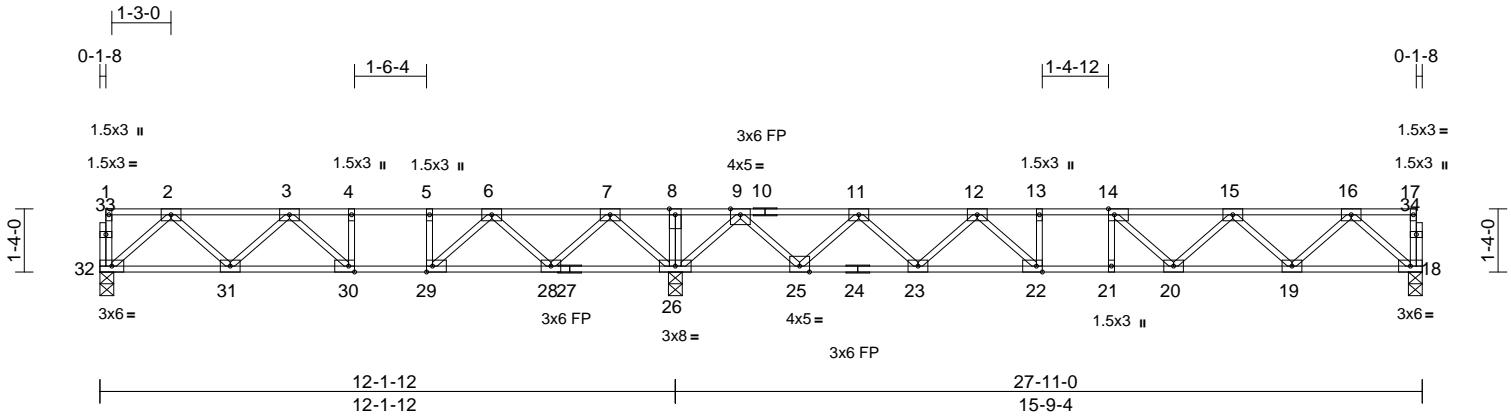
Job 19110027-B	Truss F04	Truss Type Floor	Qty 3	Ply 1	Job Reference (optional) E13785143
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.32 S Oct 29 2019 Print: 8.320 S Oct 29 2019 MiTek Industries, Inc. Wed Nov 20 12:42:29

Page: 1

Id: wPoMtQc\_YbHdnQmTRWEgNryHM9R-zbw3uqll31W?ecZKH5LjoWScY9kMrwOGJy?bOyHHHe



Scale = 1:48.6

Plate Offsets (X, Y): [14:0-1-8,Edge], [22:0-1-8,Edge], [29:0-1-8,Edge], [30:0-1-8,Edge]

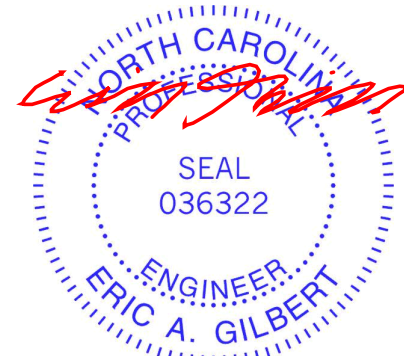
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.76	Vert(LL)	-0.12	21	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.17	20-21	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.03	18	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH								
											Weight: 145 lb	FT = 20%F, 11%E

LUMBER	
TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
REACTIONS (lb/size)	
	18=724/0-3-8, 26=1823/0-3-8, 32=485/0-3-8
Max Grav	18=752 (LC 4), 26=1823 (LC 1), 32=571 (LC 3)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	32-33=-38/0, 1-33=-38/0, 18-34=-42/0, 17-34=-42/0, 1-2=-2/0, 2-3=-920/0, 3-4=-1204/214, 4-5=-1204/214, 5-6=-1204/214, 6-7=-432/738, 7-8=0/1692, 8-9=0/1692, 9-10=-434/273, 10-11=-434/273, 11-12=-1535/0, 12-13=-2147/0, 13-14=-2147/0, 14-15=-1990/0, 15-16=-1311/0, 16-17=-2/0
BOT CHORD	31-32=0/601, 30-31=-32/1192, 29-30=-214/1204, 28-29=-494/898, 27-28=-980/0, 26-27=-980/0, 25-26=-641/0, 24-25=-57/1124, 23-24=-57/1124, 22-23=0/1931, 21-22=0/2147, 20-21=0/2147, 19-20=0/1795, 18-19=0/800
WEBS	8-26=-98/0, 7-26=-1157/0, 2-32=-798/0, 7-28=0/771, 2-31=-7/443, 6-28=-787/0, 3-31=-378/87, 6-29=0/717, 3-30=-320/17, 4-30=-40/112, 5-29=-337/0, 9-26=-1399/0, 16-18=-1062/0, 9-25=0/1038, 16-19=0/711, 11-25=-1002/0, 15-19=-673/0, 11-23=0/613, 15-20=0/280, 12-23=-600/0, 14-20=-290/88, 12-22=0/552, 13-22=-227/0, 14-21=-157/56

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x5 MT20 unless otherwise indicated.
- 3) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 4) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



November 20, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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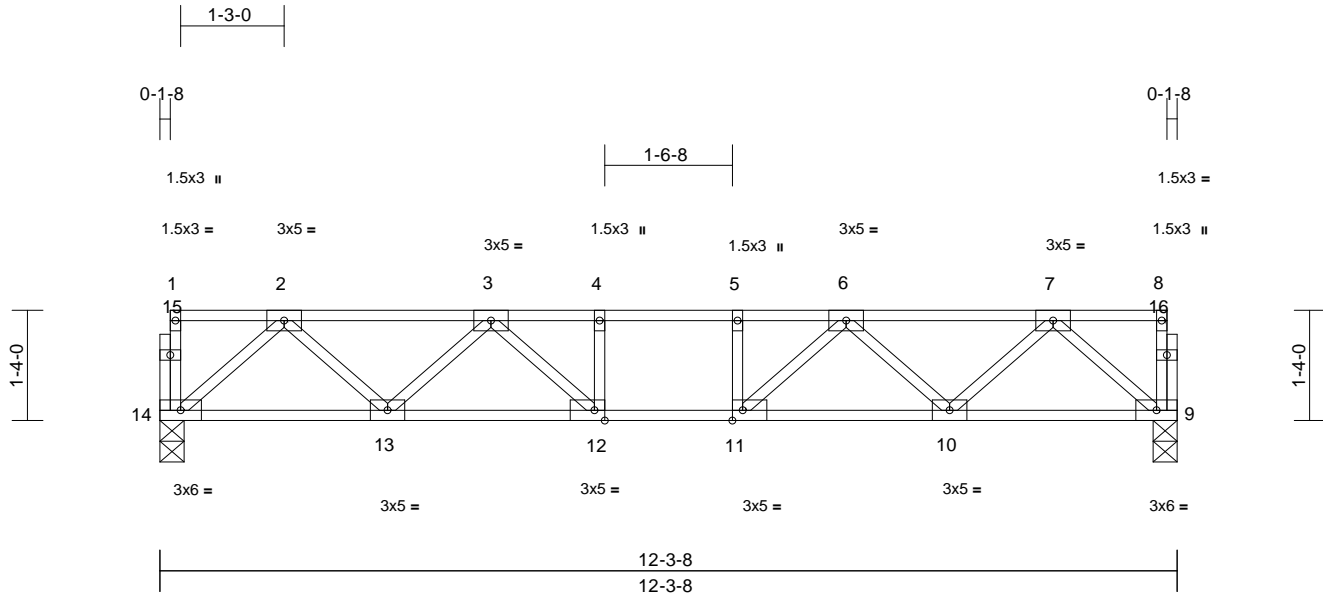
818 Soundside Road  
Edenton, NC 27932

Job 19110027-B	Truss F05	Truss Type Floor	Qty 1	Ply 1	Job Reference (optional) E13785144
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.32 S Oct 29 2019 Print: 8.320 S Oct 29 2019 MiTek Industries, Inc. Wed Nov 20 12:42:30  
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Page: 1



Scale = 1:27.8

Plate Offsets (X, Y): [11:0-1-8,Edge], [12:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.41	Vert(LL)	-0.07	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.09	12-13	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 65 lb	FT = 20%F, 11%E

#### LUMBER

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

#### BRACING

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

REACTIONS (lb/size) 9=656/0-3-8, 14=656/0-3-8

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 14-15=-35/0, 1-15=-35/0, 9-16=-35/0,  
8-16=-35/0, 1-2=-2/0, 2-3=-1097/0,  
3-4=-1627/0, 4-5=-1627/0, 5-6=-1627/0,  
6-7=-1097/0, 7-8=-2/0

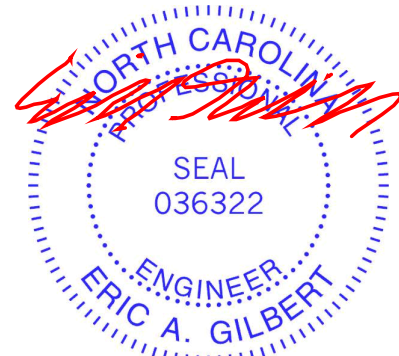
BOT CHORD 13-14=0/697, 12-13=0/1466, 11-12=0/1627,  
10-11=0/1466, 9-10=0/697

WEBS 7-9=-926/0, 2-14=-926/0, 7-10=0/556,  
2-13=0/556, 6-10=-513/0, 3-13=-513/0,  
6-11=0/393, 3-12=0/393, 4-12=-197/0,  
5-11=-197/0

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x5 MT20 unless otherwise indicated.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



November 20,2019

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

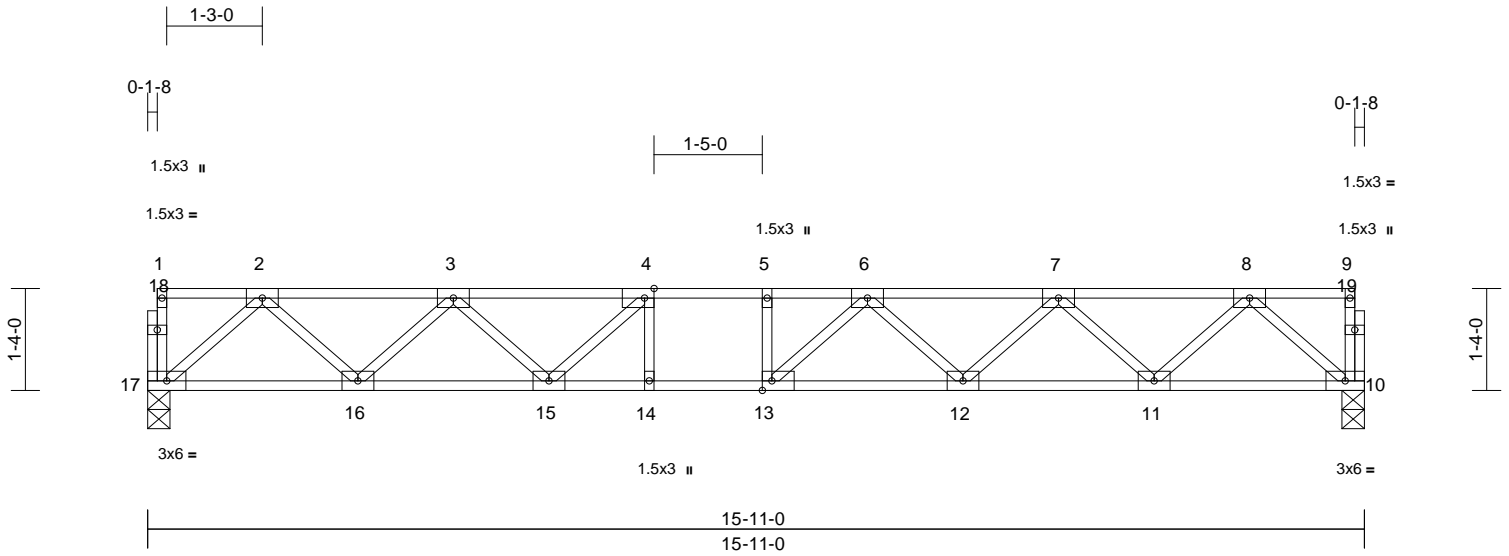
Job 19110027-B	Truss F06	Truss Type Floor	Qty 5	Ply 1	Job Reference (optional) E13785145
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.32 S Oct 29 2019 Print: 8.320 S Oct 29 2019 MiTek Industries, Inc. Wed Nov 20 12:42:31

Page: 1

ID:wPoMtQc\_YbHDnQmTRWEGnryHM9R-RnCIHERO3M9NcoBmu?caG03glySX5JXYUziZ7qyHHhd



Scale = 1:30.1

Plate Offsets (X, Y): [4:0-1-8,Edge], [13:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.52	Vert(LL)	-0.16	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.23	12-13	>820	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.05	10	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 83 lb	FT = 20%F, 11%E

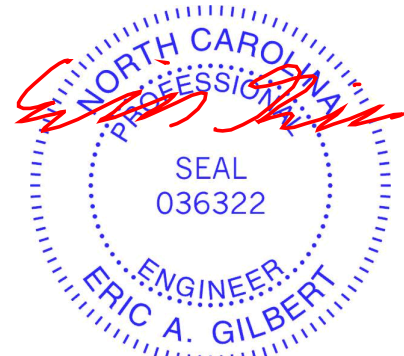
**LUMBER** LOAD CASE(S) Standard

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

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

- REACTIONS** (lb/size) 10=855/0-3-8, 17=855/0-3-8
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 17-18=-40/0, 1-18=-40/0, 10-19=-38/0, 9-19=-38/0, 1-2=-2/0, 2-3=-1533/0, 3-4=-2429/0, 4-5=-2759/0, 5-6=-2759/0, 6-7=-2434/0, 7-8=-1532/0, 8-9=-2/0
  - BOT CHORD 16-17=0/920, 15-16=0/2114, 14-15=0/2759, 13-14=0/2759, 12-13=0/2713, 11-12=0/2119, 10-11=0/918
  - WEBS 8-10=-1220/0, 2-17=-1222/0, 8-11=0/853, 2-16=0/853, 7-11=-817/0, 3-16=-808/0, 7-12=0/438, 3-15=0/479, 6-12=-389/0, 4-15=-572/0, 6-13=-188/365, 4-14=-84/164, 5-13=-155/34

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x5 MT20 unless otherwise indicated.
  - 3) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - 4) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



November 20, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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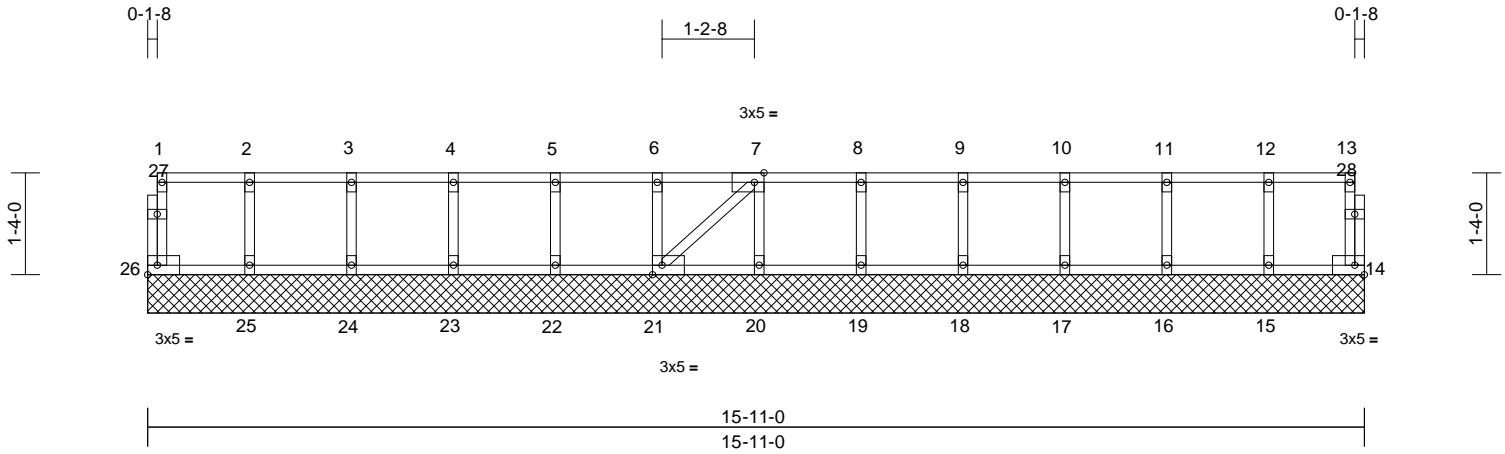
Job 19110027-B	Truss F07	Truss Type Floor Supported Gable	Qty 1	Ply 1	Job Reference (optional) E13785146
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Carter Components (Sanford), Sanford, NC - 27332,

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Scale = 1:30.1

Plate Offsets (X, Y): [7:0-1-8,Edge], [21:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 73 lb	FT = 20%F, 11%E

**LUMBER**

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

**BRACING**

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

**REACTIONS** (lb/size) 14=44/15-11-0, 15=146/15-11-0, 16=147/15-11-0, 17=147/15-11-0, 18=147/15-11-0, 19=147/15-11-0, 20=147/15-11-0, 21=146/15-11-0, 22=147/15-11-0, 23=147/15-11-0, 24=146/15-11-0, 25=152/15-11-0, 26=49/15-11-0

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 26-27=-44/0, 1-27=-44/0, 14-28=-40/0, 13-28=-40/0, 1-2=-2/0, 2-3=-2/0, 3-4=-2/0, 4-5=-2/0, 5-6=-2/0, 6-7=-2/0, 7-8=-2/0, 8-9=-2/0, 9-10=-2/0, 10-11=-2/0, 11-12=-2/0, 12-13=-2/0  
 BOT CHORD 25-26=0/2, 24-25=0/2, 23-24=0/2, 22-23=0/2, 21-22=0/2, 20-21=0/2, 19-20=0/2, 18-19=0/2, 17-18=0/2, 16-17=0/2, 15-16=0/2, 14-15=0/2  
 WEBS 2-25=-138/0, 3-24=-133/0, 4-23=-134/0, 5-22=-133/0, 6-21=-133/0, 7-20=-134/0, 8-19=-133/0, 9-18=-133/0, 10-17=-133/0, 11-16=-134/0, 12-15=-133/0, 7-21=0/0

**NOTES**

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.

- 5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard



November 20, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



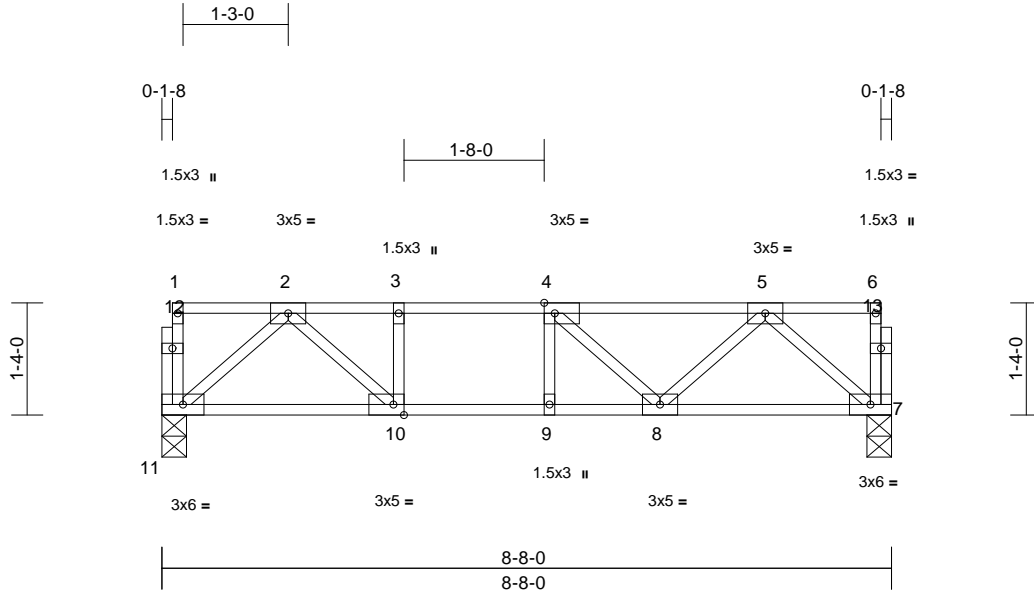
818 Soundside Road  
 Edenton, NC 27932

Job 19110027-B	Truss F08	Truss Type Floor	Qty 3	Ply 1	Job Reference (optional) E13785147
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:27.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.42	Vert(LL)	-0.06	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.56	Vert(CT)	-0.07	8-9	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 47 lb	FT = 20%F, 11%E

**LUMBER**

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

**BRACING**

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

**REACTIONS** (lb/size) 7=457/0-3-8, 11=457/0-3-8

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 11-12=-61/0, 1-12=-61/0, 7-13=-24/0, 6-13=-24/0, 1-2=-3/0, 2-3=-776/0, 3-4=-776/0, 4-5=-661/0, 5-6=-1/0

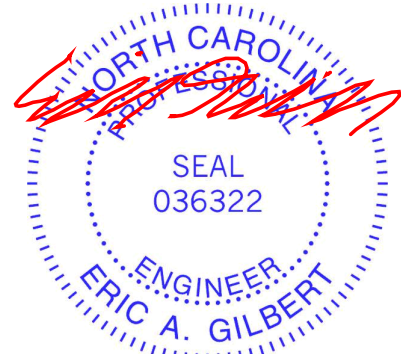
BOT CHORD 10-11=0/453, 9-10=0/776, 8-9=0/776, 7-8=0/484

WEBS 5-7=-642/0, 2-11=-599/0, 5-8=0/247, 2-10=0/459, 4-8=-210/0, 3-10=-218/0, 4-9=-105/16

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard



November 20,2019

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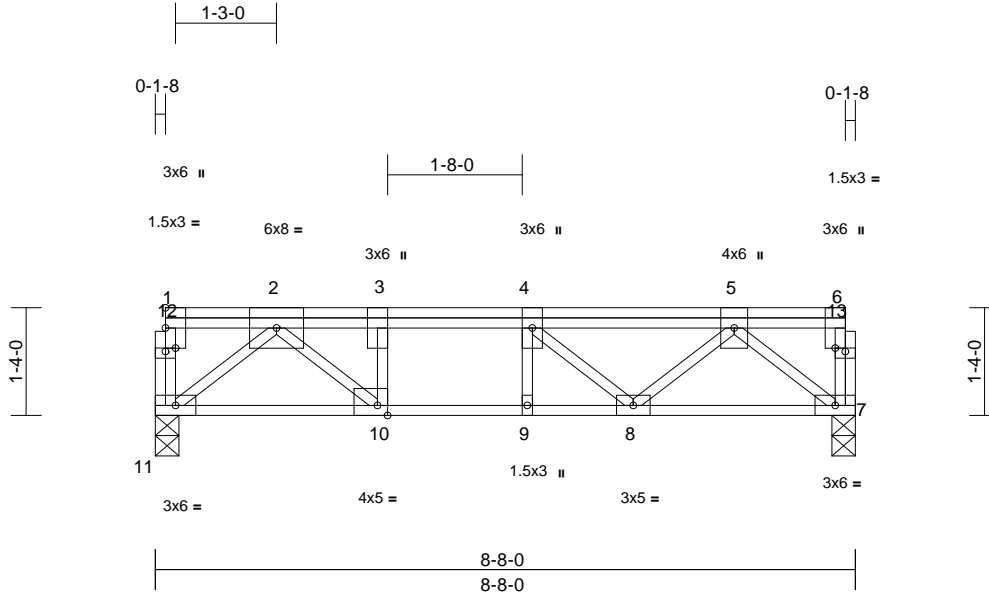


Job 19110027-B	Truss F09	Truss Type Floor Girder	Qty 1	Ply 1	Job Reference (optional) E13785148
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:28.5

Plate Offsets (X, Y): [10:0-1-8,Edge], [12:0-1-8,0-0-8], [13:0-1-8,0-0-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.55	Vert(LL)	-0.07	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.09	8-9	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.65	Horz(CT)	0.02	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 58 lb	FT = 20%F, 11%E

**LUMBER**

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

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (lb/ft)
- Vert: 7-11=-10, 1-6=-300 (F=-200)

**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) 7=1286/0-3-8, 11=1286/0-3-8

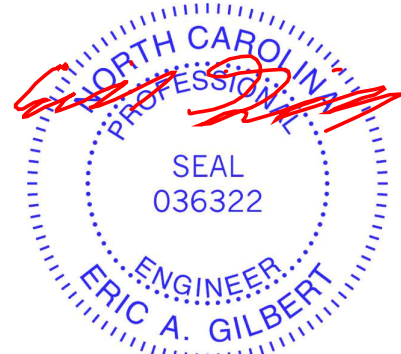
**FORCES** (lb) - Maximum Compression/Maximum Tension

- TOP CHORD 11-12=-208/0, 1-12=-207/0, 7-13=-73/0, 6-13=-73/0, 1-2=-11/0, 2-3=-2304/0, 3-4=-2304/0, 4-5=-1904/0, 5-6=-4/0
- BOT CHORD 10-11=0/1304, 9-10=0/2304, 8-9=0/2304, 7-8=0/1448
- WEBS 5-7=-1880/0, 2-11=-1682/0, 5-8=0/626, 2-10=0/1356, 4-8=-563/0, 3-10=-804/0, 4-9=-86/0

**NOTES**

- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 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



November 20, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

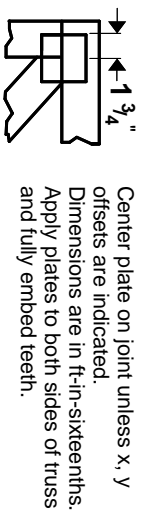
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



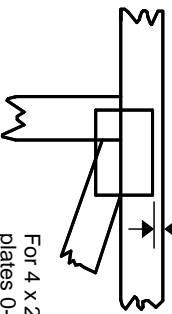
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# Symbols

## 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-  $\frac{1}{16}$ " from outside edge of truss.



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

## PLATE SIZE

4 X 4

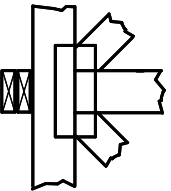
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

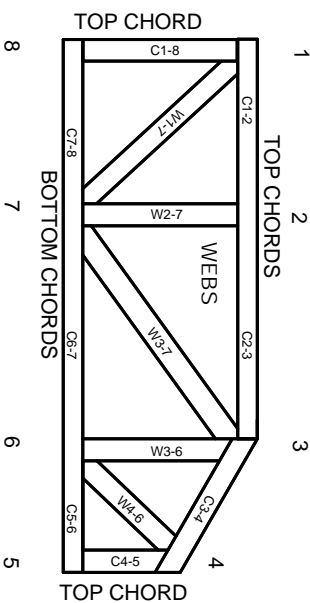


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: Mill-7473 rev. 10/03/2015



# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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