

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: Q-1901806-1  
Phillips' Gable RF-Roof

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Peak Truss Builders, LLC.

Pages or sheets covered by this seal: E13608382 thru E13608397

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844



October 8, 2019

Gilbert, Eric

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

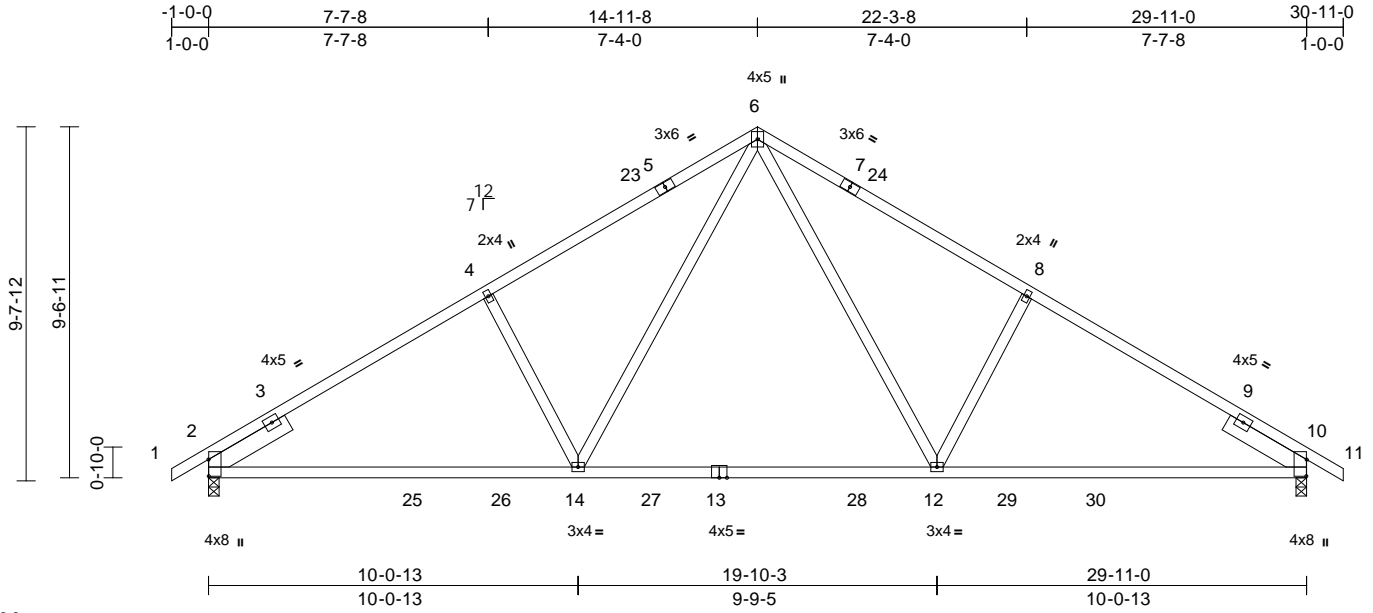


Job Q-1901806-1	Truss T1A	Truss Type Common	Qty 8	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608383
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:23  
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Page: 1



Scale = 1:62.8

Plate Offsets (X, Y): [2:0-5-7,0-0-2], [10:0-5-7,0-0-2]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.32	12-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.49	12-14	>730	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.06	10	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 158 lb	FT = 20%

**LUMBER**

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

**BRACING**

- TOP CHORD Structural wood sheathing directly applied or 3-6-8 oc purlins.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

- (lb/size) 2=1257/0-3-8, 10=1257/0-3-8
- Max Horiz 2=-167 (LC 9)
- Max Uplift 2=-182 (LC 11), 10=-182 (LC 11)
- Max Grav 2=1291 (LC 16), 10=1291 (LC 17)

**FORCES**

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/30, 2-3=-656/0, 3-4=-1784/269, 4-23=-1661/305, 5-23=-1550/308, 5-6=-1538/326, 6-7=-1538/326, 7-24=-1551/308, 8-24=-1661/305, 8-9=-1784/269, 9-10=-538/0, 10-11=0/30
- BOT CHORD 2-25=-168/1591, 25-26=-107/1591, 14-26=-107/1591, 14-27=0/1078, 13-27=0/1078, 13-28=0/1078, 12-28=0/1078, 12-29=-107/1468, 29-30=-107/1468, 10-30=-107/1468
- WEBS 6-12=-90/746, 8-12=-388/219, 6-14=-90/746, 4-14=-388/219

**NOTES**

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

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=30ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 14-11-8, Exterior (2) 14-11-8 to 17-11-8, Interior (1) 17-11-8 to 30-11-0 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) \* 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.
- 4) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 182 lb uplift at joint 2 and 182 lb uplift at joint 10.
- 6) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



October 8, 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 Q-1901806-1	Truss T1B	Truss Type Roof Special	Qty 6	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608384
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:23  
ID: ?eE?ljq63VaEebg2d7pNXQyXBN9-gD4WA5VqEg77BceekaQs5FPjst4zYGnHDCfeuyYmkM

Page: 1

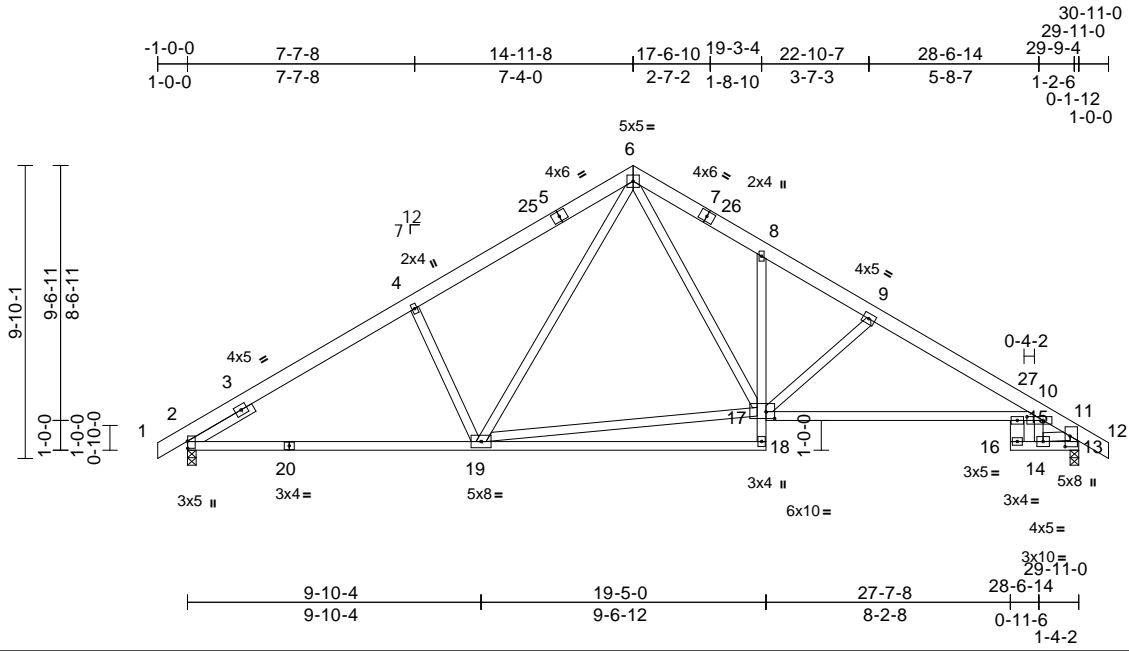


Plate Offsets (X, Y): [2:0-2-14,0-0-2], [10:0-6-8,0-1-8], [13:0-4-4,0-2-0], [17:0-3-8,0-2-12]

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	1.00	Vert(LL)	-0.20	15-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.52	15-17	>682	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.21	13	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 207 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x4 SP No.1 \*Except\* 18-8:2x4 SP No.3, 15-16:2x6 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 2-6-0

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

**REACTIONS** (lb/size) 2=1251/0-3-8, 13=1260/0-3-8  
Max Horiz 2=178 (LC 10)  
Max Uplift 2=-182 (LC 11), 13=-187 (LC 11)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-3=-903/22, 3-4=-1581/266, 4-25=-1594/311, 5-25=-1460/313, 5-6=-1444/331, 6-7=-1637/359, 7-26=-1652/343, 8-26=-1682/340, 8-9=-1790/275, 9-27=-2111/298, 10-27=-2131/267, 10-11=-826/173, 11-12=0/35, 11-13=-1128/180  
BOT CHORD 2-20=-141/1433, 19-20=-96/1433, 18-19=0/40, 17-18=0/87, 8-17=-98/114, 15-17=-123/1870, 10-15=-22/1568, 15-16=-32/350, 14-16=-93/356, 13-14=0/271  
WEBS 4-19=-395/226, 6-19=-100/553, 17-19=0/996, 6-17=-130/851, 9-17=-576/149, 11-14=-107/98, 10-14=-482/105

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; B=20ft; L=30ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 14-11-8, Exterior (2) 14-11-8 to 17-11-8, Interior (1) 17-11-8 to 30-11-0 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
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 182 lb uplift at joint 2 and 187 lb uplift at joint 13.
- This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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



October 8, 2019

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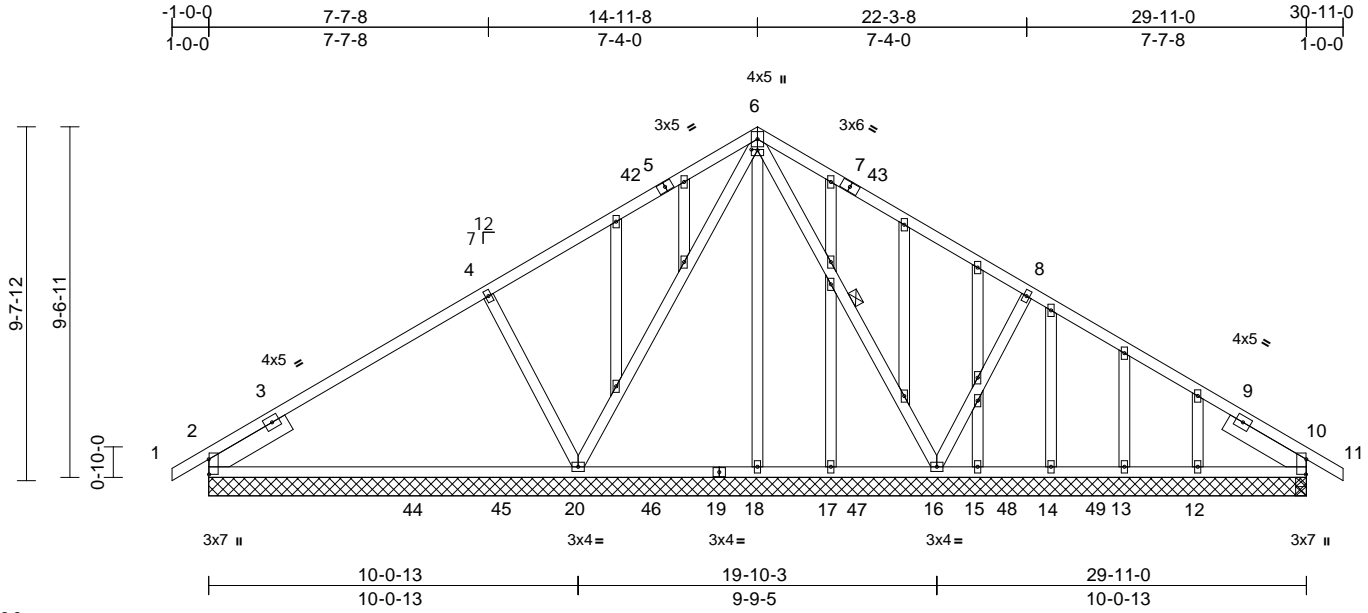
818 Soundside Road  
Edenton, NC 27932

Job Q-1901806-1	Truss T1SE	Truss Type Common Structural Gable	Qty 2	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608385
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:24  
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Page: 1



Scale = 1:62.8

Plate Offsets (X, Y): [2:0-4-15,0-0-2], [6:0-2-0,0-0-4], [10:0-4-15,0-0-2]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.11	20-36	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.28	20-36	>430	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 223 lb	FT = 20%

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 6-16

**REACTIONS** (lb/size)  
2=683/29-11-0, 10=483/29-11-0,  
12=146/29-11-0, 13=-1/29-11-0,  
14=54/29-11-0, 15=20/29-11-0,  
16=580/29-11-0, 17=66/29-11-0,  
18=18/29-11-0, 20=464/29-11-0,  
34=683/29-11-0, 38=483/29-11-0  
Max Horiz 2=-167 (LC 9), 34=-167 (LC 9)  
Max Uplift 2=-135 (LC 11), 10=-132 (LC 11),  
12=-49 (LC 11), 13=-3 (LC 21),  
16=-124 (LC 11), 20=-68 (LC 11),  
34=-135 (LC 11), 38=-132 (LC 11)  
Max Grav 2=683 (LC 1), 10=483 (LC 1),  
12=151 (LC 21), 13=52 (LC 11),  
14=123 (LC 15), 15=30 (LC 15),  
16=580 (LC 1), 17=126 (LC 15),  
18=135 (LC 15), 20=464 (LC 1),  
34=683 (LC 1), 38=483 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-3=-545/0, 3-4=-598/189,  
4-42=-591/226, 5-42=-546/228,  
5-6=-541/246, 6-7=-349/254, 7-43=-354/235,  
8-43=-398/233, 8-9=-385/196,  
9-10=-139/141, 10-11=0/30

**BOT CHORD** 2-44=-40/655, 44-45=-40/655,  
20-45=-40/655, 20-46=0/346, 19-46=0/346,  
18-19=0/346, 17-18=0/346, 17-47=0/346,  
16-47=0/346, 15-16=-47/382, 15-48=-47/382,  
14-48=-47/382, 14-49=-47/382,  
13-49=-47/382, 12-13=-47/382,  
10-12=-47/382  
**WEBS** 6-16=-242/0, 8-16=-409/223, 6-20=-41/262,  
4-20=-434/222

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=30ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 14-11-8, Exterior (2) 14-11-8 to 17-11-8, Interior (1) 17-11-8 to 30-11-0 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 135 lb uplift at joint 2, 124 lb uplift at joint 16, 68 lb uplift at joint 20, 132 lb uplift at joint 10, 3 lb uplift at joint 13, 49 lb uplift at joint 12, 135 lb uplift at joint 2 and 132 lb uplift at joint 10.
- This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



October 8, 2019

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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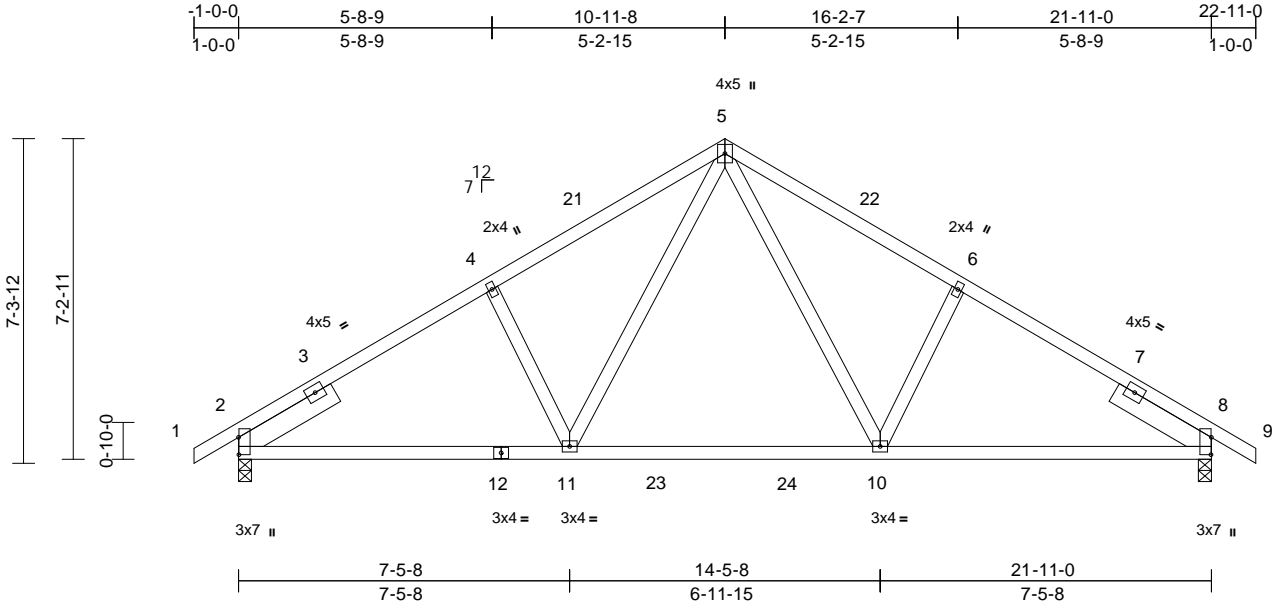
Job Q-1901806-1	Truss T2	Truss Type Common	Qty 11	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608386
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:25

Page: 1

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Scale = 1:51.9

Plate Offsets (X, Y): [2:0-4-11,0-0-2], [8:0-4-11,0-0-2]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.11	10-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.17	10-11	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 120 lb	FT = 20%

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

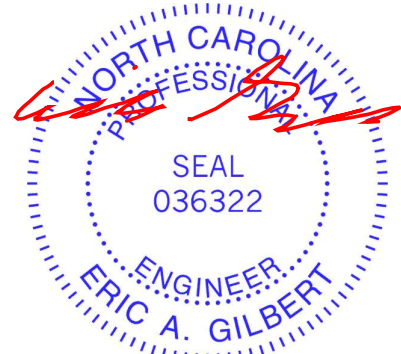
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-6-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=937/0-3-8, 8=937/0-3-8  
Max Horiz 2=-125 (LC 9)  
Max Uplift 2=-143 (LC 11), 8=-143 (LC 11)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-3=-412/0, 3-4=-1188/191, 4-21=-1094/218, 5-21=-1013/237, 5-22=-1013/237, 6-22=-1094/218, 6-7=-1188/191, 7-8=-389/0, 8-9=0/30  
BOT CHORD 2-12=-90/1023, 11-12=-63/1023, 11-23=0/713, 23-24=0/713, 10-24=0/713, 8-10=-63/979  
WEBS 5-10=-65/456, 6-10=-264/157, 5-11=-65/456, 4-11=-264/157

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=22ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 10-11-8, Exterior (2) 10-11-8 to 13-11-8, Interior (1) 13-11-8 to 22-11-0 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

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 143 lb uplift at joint 2 and 143 lb uplift at joint 8.
  - This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



October 8, 2019

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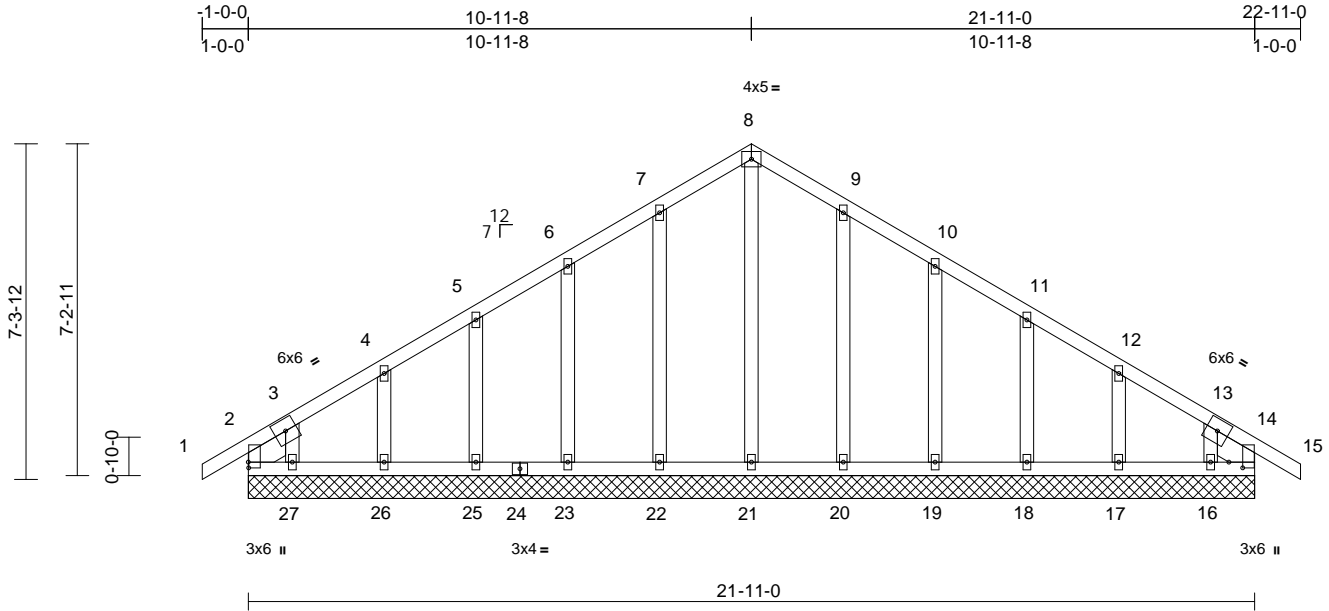
818 Soundside Road  
Edenton, NC 27932

Job Q-1901806-1	Truss T2GE	Truss Type Common Supported Gable	Qty 1	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608387
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:25  
ID:3T6Fu2prXtKWPfHWfWvns?yXBNB-dbBGbmW4IHOrRwmOr?SKAgUlgkdRwM4kXhmjnyVmkk

Page: 1



Scale = 1:50.2

Plate Offsets (X, Y): [2:0-1-8,0-0-2], [14:0-1-8,0-3-10]

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 136 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
OTHERS	2x4 SP No.3
SLIDER	Left 2x6 SP No.2 -- 1-0-8, Right 2x6 SP No.2 -- 1-0-8

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

REACTIONS	(lb/size)
	2=125/21-11-0, 14=125/21-11-0, 16=97/21-11-0, 17=164/21-11-0, 18=159/21-11-0, 19=159/21-11-0, 20=166/21-11-0, 21=132/21-11-0, 22=166/21-11-0, 23=159/21-11-0, 25=159/21-11-0, 26=164/21-11-0, 27=97/21-11-0, 28=125/21-11-0, 32=125/21-11-0
Max Horiz	2=-125 (LC 9), 28=-125 (LC 9)
Max Uplift	2=-35 (LC 9), 16=-62 (LC 11), 17=-44 (LC 11), 18=-42 (LC 11), 19=-45 (LC 11), 20=-39 (LC 11), 22=-39 (LC 11), 23=-45 (LC 11), 25=-42 (LC 11), 26=-44 (LC 11), 27=-62 (LC 11), 28=-35 (LC 9)
Max Grav	2=153 (LC 17), 14=125 (LC 1), 16=117 (LC 17), 17=164 (LC 21), 18=159 (LC 21), 19=159 (LC 1), 20=168 (LC 21), 21=133 (LC 16), 22=168 (LC 20), 23=159 (LC 1), 25=159 (LC 20), 26=164 (LC 20), 27=133 (LC 16), 28=153 (LC 17), 32=125 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension

TOP CHORD	
	1-2=0/30, 2-3=-53/81, 3-4=-96/84, 4-5=-89/70, 5-6=-80/62, 6-7=-94/109, 7-8=-129/153, 8-9=-129/153, 9-10=-94/109, 10-11=-59/62, 11-12=-54/25, 12-13=-62/41, 13-14=-53/63, 14-15=0/30
BOT CHORD	
	2-27=-60/97, 26-27=-60/97, 25-26=-60/97, 24-25=-60/97, 23-24=-60/97, 22-23=-60/97, 21-22=-60/97, 20-21=-60/97, 19-20=-60/97, 18-19=-60/97, 17-18=-60/97, 16-17=-60/97, 14-16=-60/97
WEBS	
	8-21=-101/30, 7-22=-128/63, 6-23=-119/69, 5-25=-119/66, 4-26=-123/69, 3-27=-102/75, 9-20=-128/63, 10-19=-119/69, 11-18=-119/66, 12-17=-123/69, 13-16=-105/75

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=22ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -1-0-0 to 2-0-0, Exterior (2) 2-0-0 to 10-11-8, Corner (3) 10-11-8 to 13-11-8, Exterior (2) 13-11-8 to 22-11-0 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) 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) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 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) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 2, 39 lb uplift at joint 22, 45 lb uplift at joint 23, 42 lb uplift at joint 25, 44 lb uplift at joint 26, 62 lb uplift at joint 27, 39 lb uplift at joint 20, 45 lb uplift at joint 19, 42 lb uplift at joint 18, 44 lb uplift at joint 17, 62 lb uplift at joint 16 and 35 lb uplift at joint 2.
  - 10) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



October 8, 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.



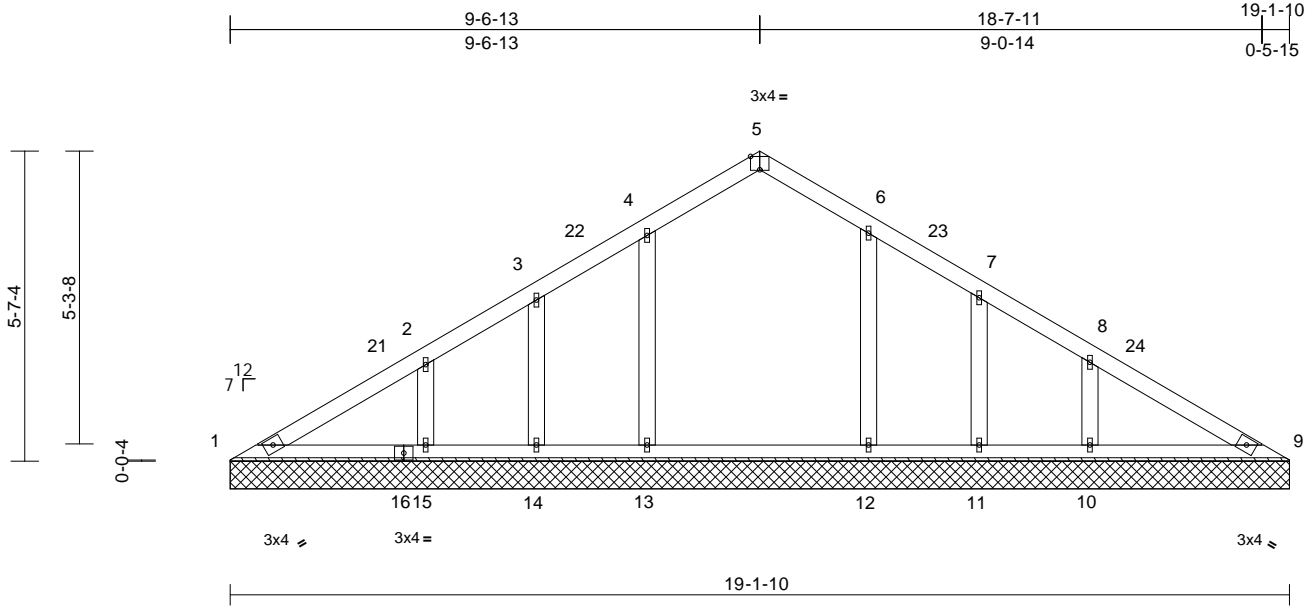
818 Soundside Road  
Edenton, NC 27932

Job Q-1901806-1	Truss V1	Truss Type Valley	Qty 1	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608388
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:26  
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Page: 1



Scale = 1:41.6

Plate Offsets (X, Y): [5:0-2-0,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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 84 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(lb/size) 1=145/19-1-10, 9=147/19-1-10, 10=307/19-1-10, 11=79/19-1-10, 12=235/19-1-10, 13=236/19-1-10, 14=81/19-1-10, 15=301/19-1-10  
Max Horiz 1=-97 (LC 9)  
Max Uplift 10=-56 (LC 11), 11=-51 (LC 11), 12=-15 (LC 11), 13=-17 (LC 11), 14=-51 (LC 11), 15=-54 (LC 11)  
Max Grav 1=145 (LC 1), 9=147 (LC 1), 10=307 (LC 1), 11=84 (LC 21), 12=306 (LC 17), 13=314 (LC 16), 14=86 (LC 20), 15=301 (LC 16)

**FORCES**

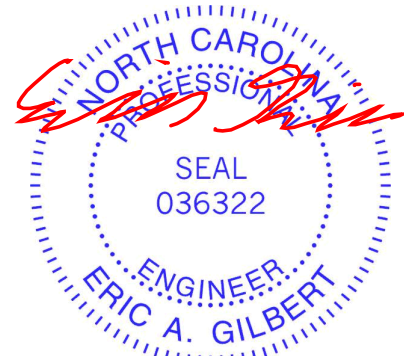
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-21=-216/46, 2-21=-84/63, 2-3=-118/17, 3-22=-95/11, 4-22=-49/17, 4-5=-114/58, 5-6=-113/58, 6-23=-41/18, 7-23=-93/12, 7-8=-113/9, 8-24=-83/62, 9-24=-100/45  
BOT CHORD 1-16=-63/206, 15-16=-63/117, 14-15=-63/117, 13-14=-63/117, 12-13=-63/117, 11-12=-63/117, 10-11=-63/117, 9-10=-63/117  
WEBS 4-13=-162/59, 3-14=-85/68, 2-15=-191/79, 6-12=-160/56, 7-11=-84/68, 8-10=-194/80

**NOTES**

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

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 9-7-4, Exterior (2) 9-7-4 to 12-7-4, Interior (1) 12-7-4 to 19-2-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 1x3 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 13, 51 lb uplift at joint 14, 54 lb uplift at joint 15, 15 lb uplift at joint 12, 51 lb uplift at joint 11 and 56 lb uplift at joint 10.
- This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



October 8, 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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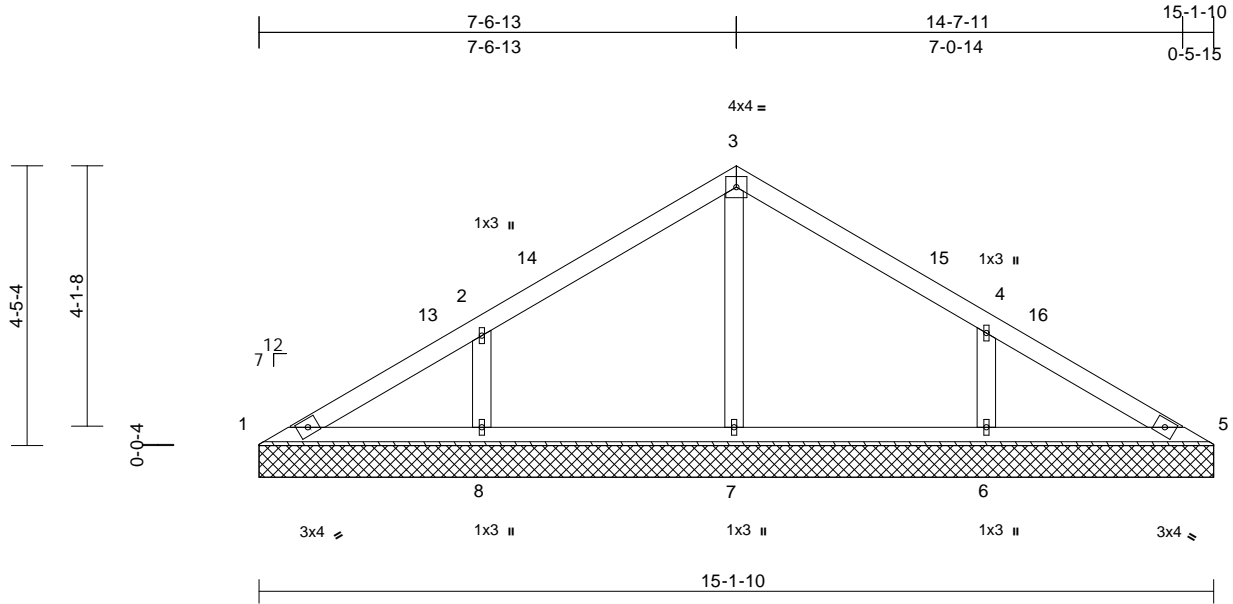


Job Q-1901806-1	Truss V2	Truss Type Valley	Qty 1	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608389
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:26  
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 57 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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=91/15-1-10, 5=95/15-1-10, 6=350/15-1-10, 7=326/15-1-10, 8=350/15-1-10  
Max Horiz 1=76 (LC 10)  
Max Uplift 5=-1 (LC 11), 6=-92 (LC 11), 8=-92 (LC 11)  
Max Grav 1=93 (LC 20), 5=96 (LC 21), 6=356 (LC 21), 7=326 (LC 1), 8=355 (LC 20)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

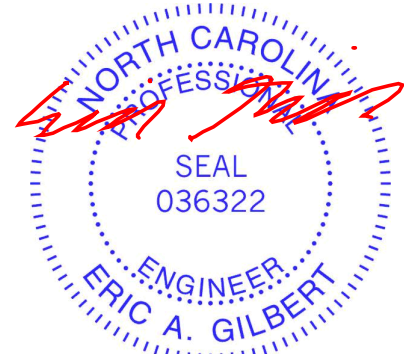
TOP CHORD 1-13=-121/110, 2-13=-15/123, 2-14=-41/55, 3-14=-16/98, 3-15=-18/88, 4-15=-40/56, 4-16=-13/98, 5-16=-25/55  
BOT CHORD 1-8=-70/112, 7-8=-70/51, 6-7=-68/50, 5-6=-68/50  
WEBS 3-7=-253/16, 2-8=-260/130, 4-6=-258/129

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 7-7-4, Exterior (2) 7-7-4 to 10-7-4, Interior (1) 10-7-4 to 15-2-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 5, 92 lb uplift at joint 8 and 92 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



October 8, 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



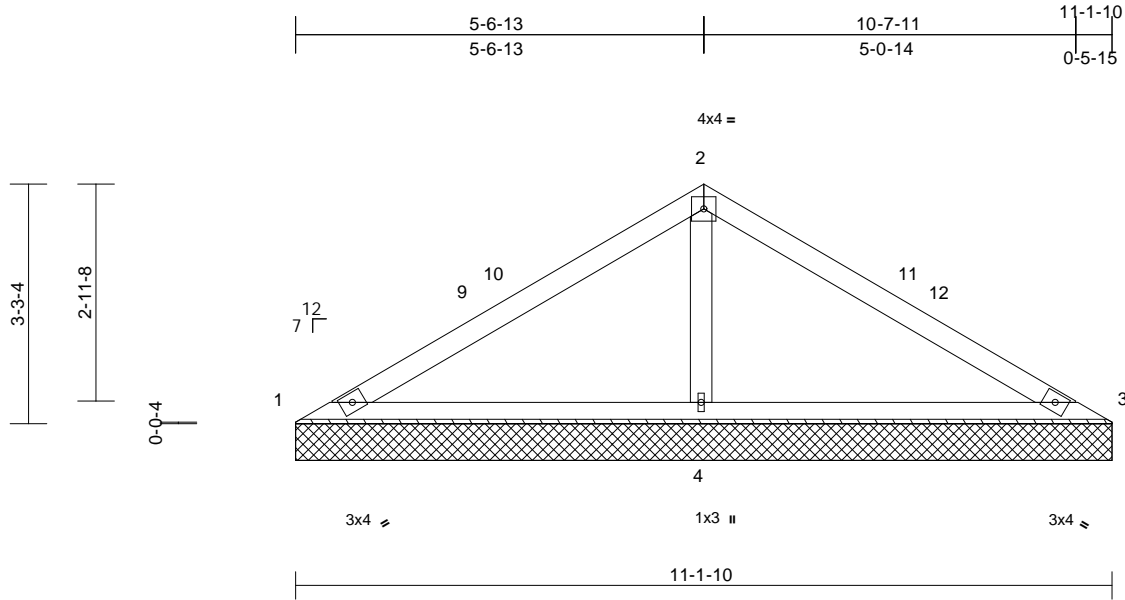
818 Soundside Road  
Edenton, NC 27932

Job Q-1901806-1	Truss V3	Truss Type Valley	Qty 1	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608390
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:27  
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.00	4	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS						Weight: 38 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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=24/11-1-10, 3=29/11-1-10, 4=838/11-1-10  
Max Horiz 1=-56 (LC 9)  
Max Uplift 1=-38 (LC 21), 3=-34 (LC 20), 4=-132 (LC 11)  
Max Grav 1=73 (LC 20), 3=78 (LC 21), 4=838 (LC 1)

- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 1, 34 lb uplift at joint 3 and 132 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

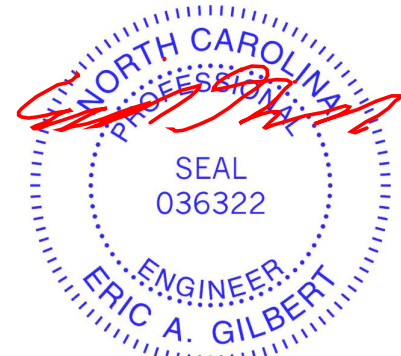
**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-9=-77/336, 9-10=-65/349, 2-10=-63/427, 2-11=-61/418, 11-12=-63/340, 3-12=-74/327  
BOT CHORD 1-4=-312/115, 3-4=-305/113  
WEBS 2-4=-649/161

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 5-7-4, Exterior (2) 5-7-4 to 8-7-4, Interior (1) 8-7-4 to 11-2-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.



October 8, 2019

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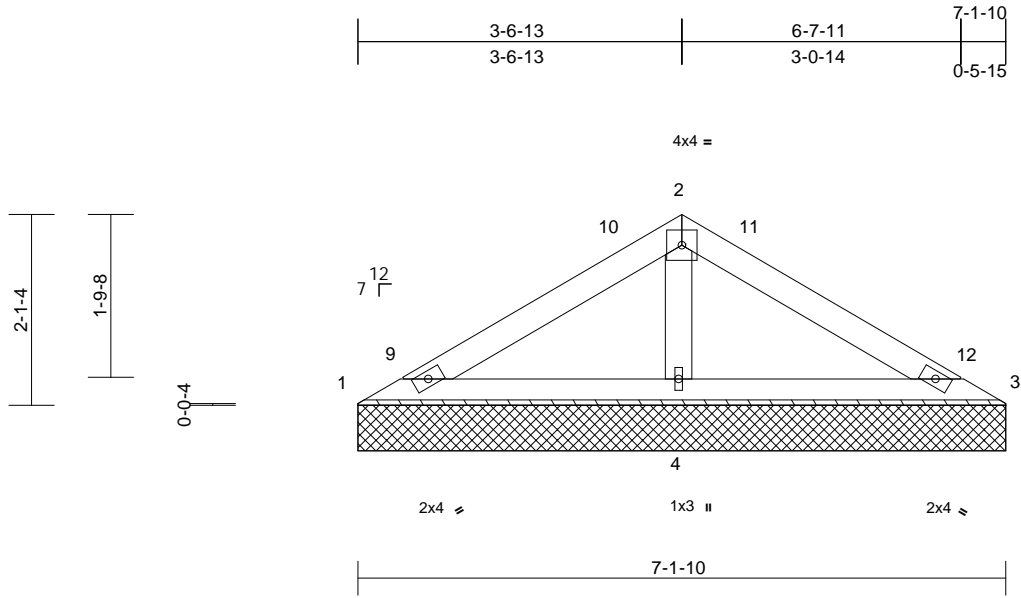
818 Soundside Road  
Edenton, NC 27932

Job Q-1901806-1	Truss V4	Truss Type Valley	Qty 1	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608391
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:27  
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MP						Weight: 23 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 7-1-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 1=50/7-1-10, 3=54/7-1-10, 4=46/7-1-10  
Max Horiz 1=-35 (LC 9)  
Max Uplift 1=-2 (LC 11), 3=-2 (LC 11), 4=-66 (LC 11)  
Max Grav 1=73 (LC 20), 3=76 (LC 21), 4=467 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-9=-70/38, 1-9=-59/41, 1-10=-35/173, 2-10=-23/203, 2-11=-21/196, 3-11=-33/166, 3-12=-66/35, 3-12=-78/31  
BOT CHORD 1-4=-160/66, 3-4=-155/65  
WEBS 2-4=-320/74

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 3-7-4, Exterior (2) 3-7-4 to 6-7-4, Interior (1) 6-7-4 to 7-2-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 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) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 1, 2 lb uplift at joint 3 and 66 lb uplift at joint 4.
- 9) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



October 8, 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.



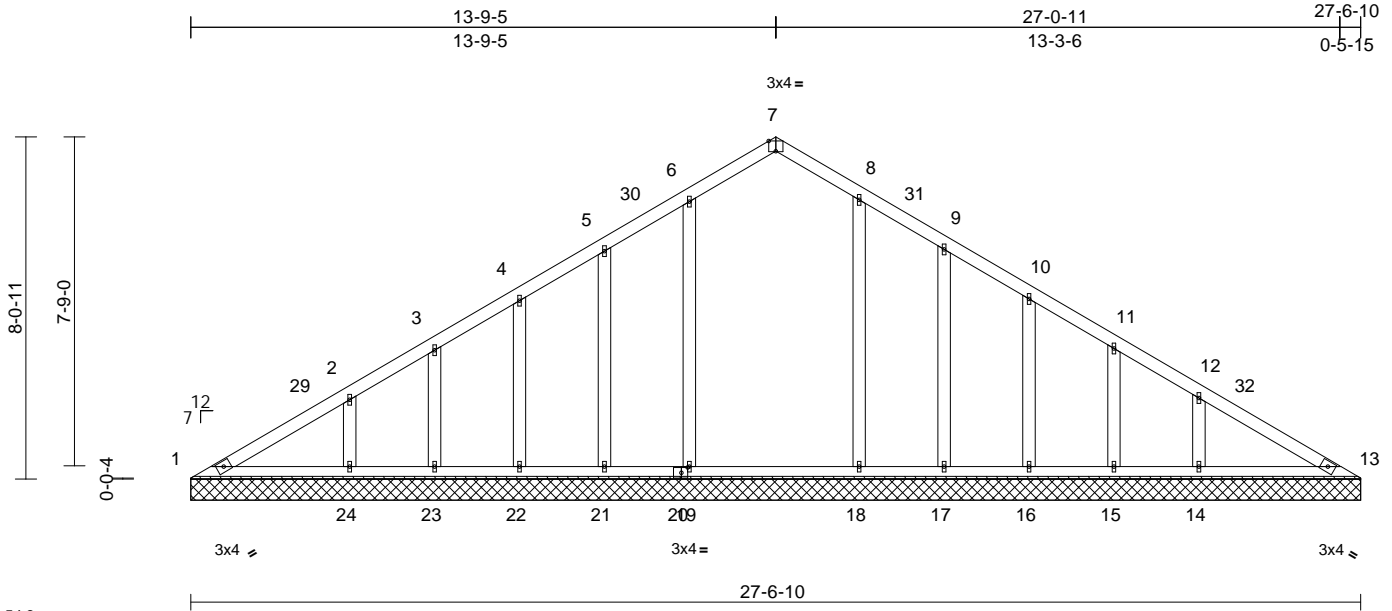
818 Soundside Road  
Edenton, NC 27932

Job Q-1901806-1	Truss V6	Truss Type Valley	Qty 1	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608392
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:28  
ID:T2oNW3rkqoi5G1FEBrKc4eyXBN8-1AtPDoZy2CmQIOvB801oJ6oVtjXessWQUvQJ5yVmkH

Page: 1



Scale = 1:54.3

Plate Offsets (X, Y): [7:0-2-0,Edge], [20:0-1-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFLL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.01	13	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 146 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.3

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

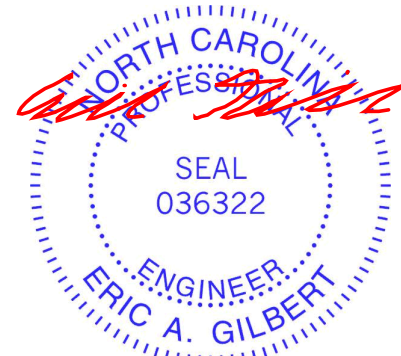
**REACTIONS** (lb/size)  
 1=150/27-6-10, 13=153/27-6-10, 14=319/27-6-10, 15=93/27-6-10, 16=183/27-6-10, 17=128/27-6-10, 18=229/27-6-10, 19=231/27-6-10, 21=128/27-6-10, 22=182/27-6-10, 23=96/27-6-10, 24=313/27-6-10  
 Max Horiz 1=141 (LC 10)  
 Max Uplift 14=53 (LC 11), 15=41 (LC 11), 16=38 (LC 11), 17=64 (LC 11), 21=63 (LC 11), 22=38 (LC 11), 23=42 (LC 11), 24=51 (LC 11)  
 Max Grav 1=150 (LC 1), 13=153 (LC 1), 14=319 (LC 1), 15=95 (LC 17), 16=186 (LC 17), 17=133 (LC 21), 18=298 (LC 17), 19=310 (LC 16), 21=132 (LC 20), 22=187 (LC 16), 23=98 (LC 20), 24=313 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-29=235/100, 2-29=154/118, 2-3=136/53, 3-4=115/44, 4-5=110/29, 5-30=95/38, 6-30=52/43, 6-7=110/76, 7-8=110/76, 8-31=54/45, 9-31=90/40, 9-10=99/12, 10-11=102/28, 11-12=124/51, 12-32=154/118, 13-32=166/100

**BOT CHORD** 1-24=113/229, 23-24=113/179, 22-23=113/179, 21-22=113/179, 20-21=113/179, 19-20=113/179, 18-19=113/179, 17-18=113/179, 16-17=113/179, 15-16=113/179, 14-15=113/179, 13-14=113/179  
**WEBS** 6-19=161/39, 5-21=109/80, 4-22=130/65, 3-23=90/63, 2-24=199/80, 8-18=159/36, 9-17=110/81, 10-16=130/65, 11-15=88/63, 12-14=202/82

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 13-9-12, Exterior (2) 13-9-12 to 16-9-12, Interior (1) 16-9-12 to 27-7-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 1x3 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 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) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.

- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 21, 38 lb uplift at joint 22, 42 lb uplift at joint 23, 51 lb uplift at joint 24, 64 lb uplift at joint 17, 38 lb uplift at joint 16, 41 lb uplift at joint 15 and 53 lb uplift at joint 14.
  - 10) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



October 8, 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.



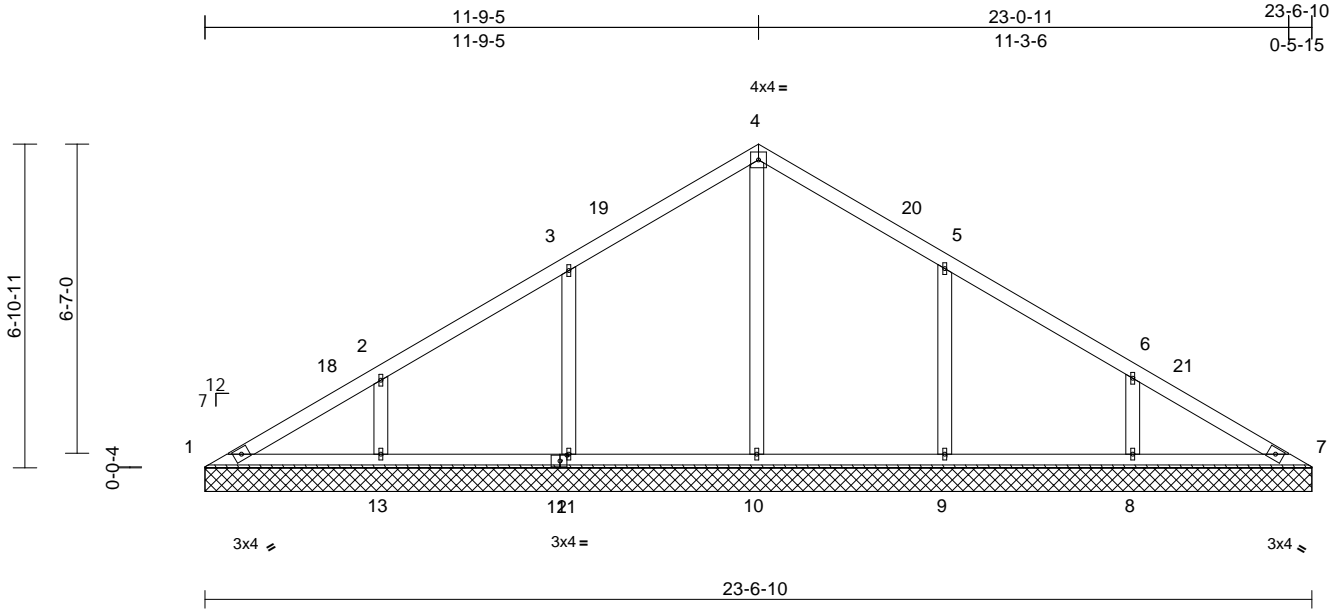
818 Soundside Road  
Edenton, NC 27932

Job Q-1901806-1	Truss V7	Truss Type Valley	Qty 1	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608393
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:28  
ID:xEMmjPsMb6qvtvqQlYrrcryXBN7-1AtPdOzY2CmQIOVbW801oJ6nYtjPermWQUvQJ5yVmkH

Page: 1



Scale = 1:49

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

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 100 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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=105/23-6-10, 7=109/23-6-10, 8=345/23-6-10, 9=326/23-6-10, 10=328/23-6-10, 11=331/23-6-10, 13=340/23-6-10  
Max Horiz 1=-120 (LC 9)  
Max Uplift 8=-82 (LC 11), 9=-92 (LC 11), 11=-94 (LC 11), 13=-81 (LC 11)  
Max Grav 1=113 (LC 17), 7=110 (LC 21), 8=345 (LC 1), 9=384 (LC 17), 10=446 (LC 16), 11=388 (LC 16), 13=340 (LC 1)

**FORCES**

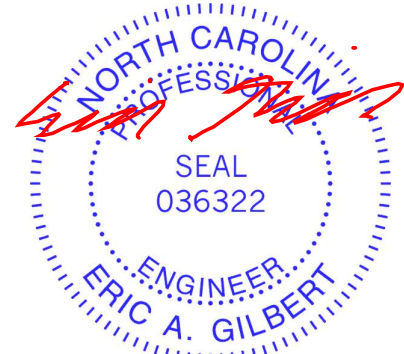
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-18=-165/105, 2-18=-47/142, 2-3=-67/126, 3-19=-89/114, 4-19=-67/136, 4-20=-68/136, 5-20=-90/114, 5-6=-35/89, 6-21=-46/106, 7-21=-62/74  
BOT CHORD 1-13=-88/148, 12-13=-88/84, 11-12=-88/84, 10-11=-88/84, 9-10=-88/84, 8-9=-88/84, 7-8=-88/84  
WEBS 4-10=-245/0, 3-11=-262/144, 2-13=-235/119, 5-9=-258/142, 6-8=-239/120

**NOTES**

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

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 11-9-12, Exterior (2) 11-9-12 to 14-9-12, Interior (1) 14-9-12 to 23-7-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 1x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 11, 81 lb uplift at joint 13, 92 lb uplift at joint 9 and 82 lb uplift at joint 8.
- This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



October 8, 2019

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818 Soundside Road  
Edenton, NC 27932

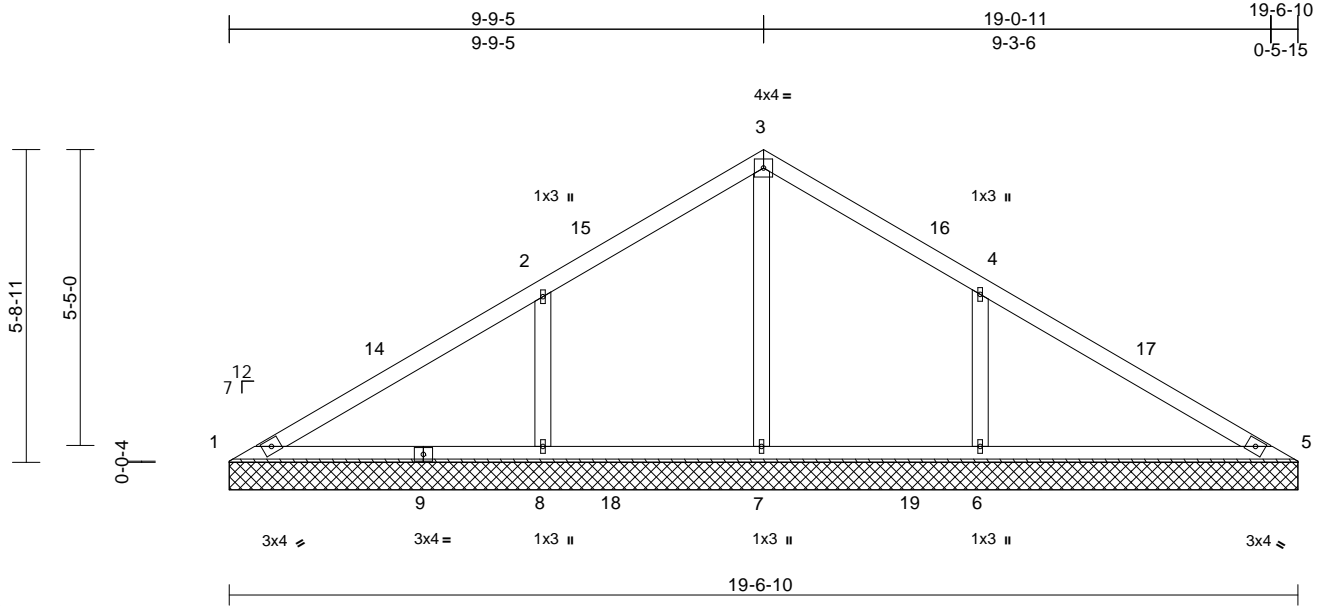


Job Q-1901806-1	Truss V8	Truss Type Valley	Qty 1	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608394
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:29  
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Page: 1



Scale = 1:42.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.24	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 77 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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=76/19-6-10, 5=80/19-6-10, 6=478/19-6-10, 7=456/19-6-10, 8=475/19-6-10  
Max Horiz 1=-100 (LC 9)  
Max Uplift 6=-124 (LC 11), 8=-124 (LC 11)  
Max Grav 1=103 (LC 20), 5=105 (LC 21), 6=496 (LC 17), 7=536 (LC 16), 8=492 (LC 16)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

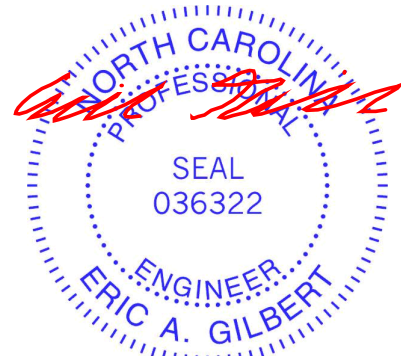
TOP CHORD 1-14=-116/257, 2-14=-62/333, 2-15=0/180, 3-15=0/290, 3-16=0/285, 4-16=0/178, 4-17=-61/331, 5-17=-74/242  
BOT CHORD 1-9=-245/112, 8-9=-245/112, 8-18=-245/112, 7-18=-245/112, 7-19=-244/112, 6-19=-244/112, 5-6=-244/112  
WEBS 3-7=-421/20, 2-8=-333/165, 4-6=-334/165

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 9-9-12, Exterior (2) 9-9-12 to 12-9-12, Interior (1) 12-9-12 to 19-7-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 8 and 124 lb uplift at joint 6.
- 9) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



October 8, 2019

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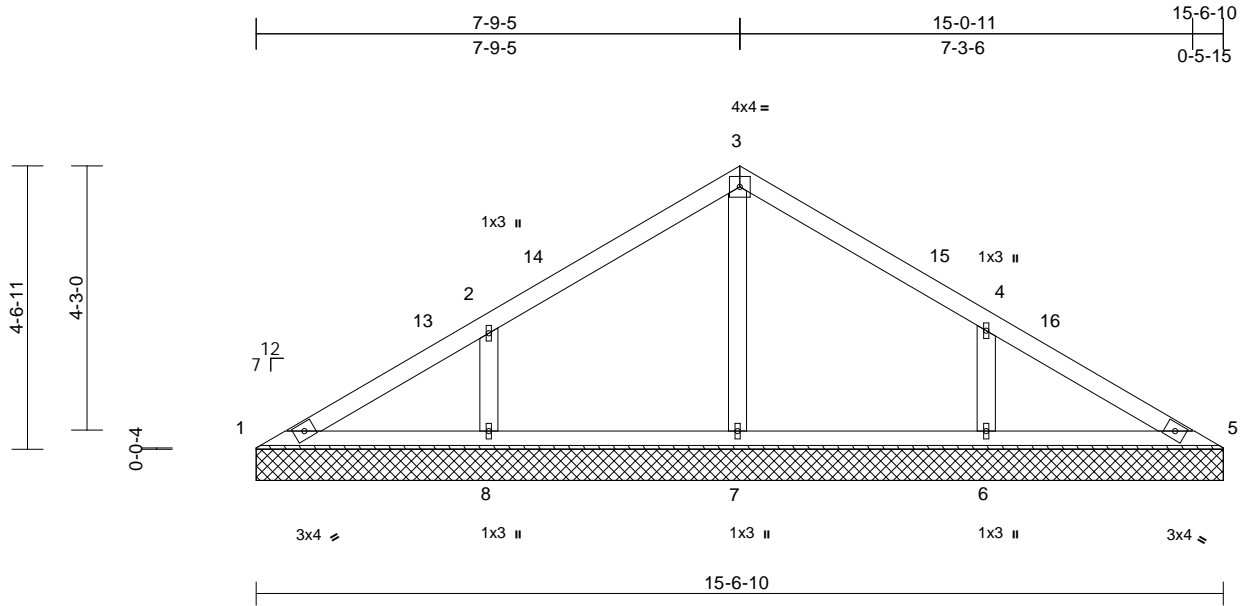
818 Soundside Road  
Edenton, NC 27932

Job Q-1901806-1	Truss V9	Truss Type Valley	Qty 1	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608395
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:29  
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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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 59 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.3

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

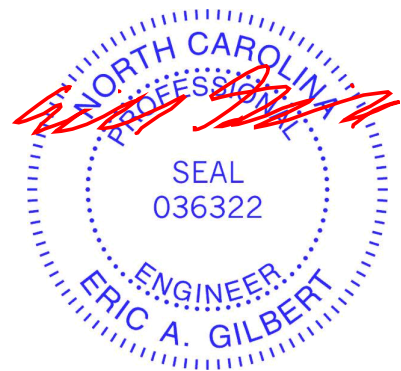
**REACTIONS** (lb/size) 1=92/15-6-10, 5=97/15-6-10, 6=360/15-6-10, 7=336/15-6-10, 8=359/15-6-10  
Max Horiz 1=-79 (LC 9)  
Max Uplift 5=-1 (LC 11), 6=-94 (LC 11), 8=-95 (LC 11)  
Max Grav 1=96 (LC 20), 5=99 (LC 21), 6=366 (LC 21), 7=336 (LC 1), 8=365 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-13=-122/86, 2-13=-16/139, 2-14=-29/54, 3-14=-5/111, 3-15=-7/103, 4-15=-29/56, 4-16=-15/113, 5-16=-30/67  
BOT CHORD 1-8=-82/115, 7-8=-82/55, 6-7=-81/55, 5-6=-81/55  
WEBS 3-7=-266/15, 2-8=-265/132, 4-6=-263/131

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 7-9-12, Exterior (2) 7-9-12 to 10-9-12, Interior (1) 10-9-12 to 15-7-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 5, 95 lb uplift at joint 8 and 94 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

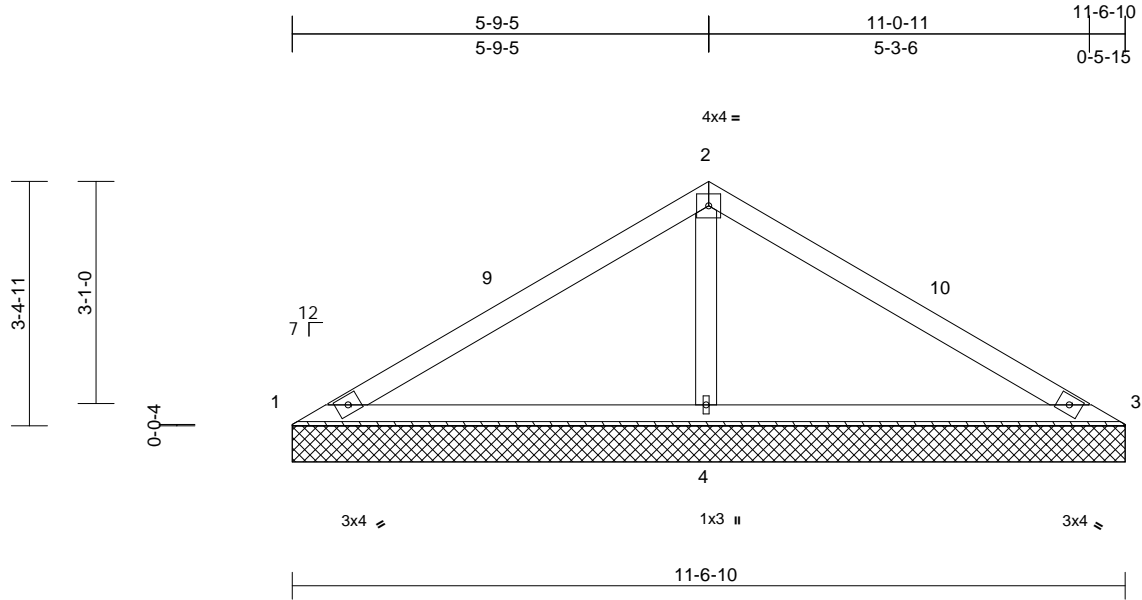


Job Q-1901806-1	Truss V10	Truss Type Valley	Qty 1	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608396
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.32 E Sep 21 2019 Print: 8.320 E Sep 21 2019 MiTek Industries, Inc. Mon Oct 07 14:56:30  
ID:xE MmjPsMb6qvtvqQlYrrcryXBN7-zZ?9eUaDaq08Xhf\_eY2VtkB5\_hO36mjpuoOXO\_yVmkF

Page: 1



Scale = 1:32

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	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MS							Weight: 39 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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=17/11-6-10, 3=23/11-6-10, 4=884/11-6-10  
Max Horiz 1=-58 (LC 9)  
Max Uplift 1=-44 (LC 21), 3=-41 (LC 20), 4=-141 (LC 11)  
Max Grav 1=71 (LC 20), 3=75 (LC 21), 4=884 (LC 1)

- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 1, 41 lb uplift at joint 3 and 141 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-9=-84/373, 2-9=-70/457, 2-10=-67/448, 3-10=-82/358  
BOT CHORD 1-4=-335/123, 3-4=-328/121  
WEBS 2-4=-689/172

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 5-9-12, Exterior (2) 5-9-12 to 8-9-12, Interior (1) 8-9-12 to 11-7-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.



October 8, 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.

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

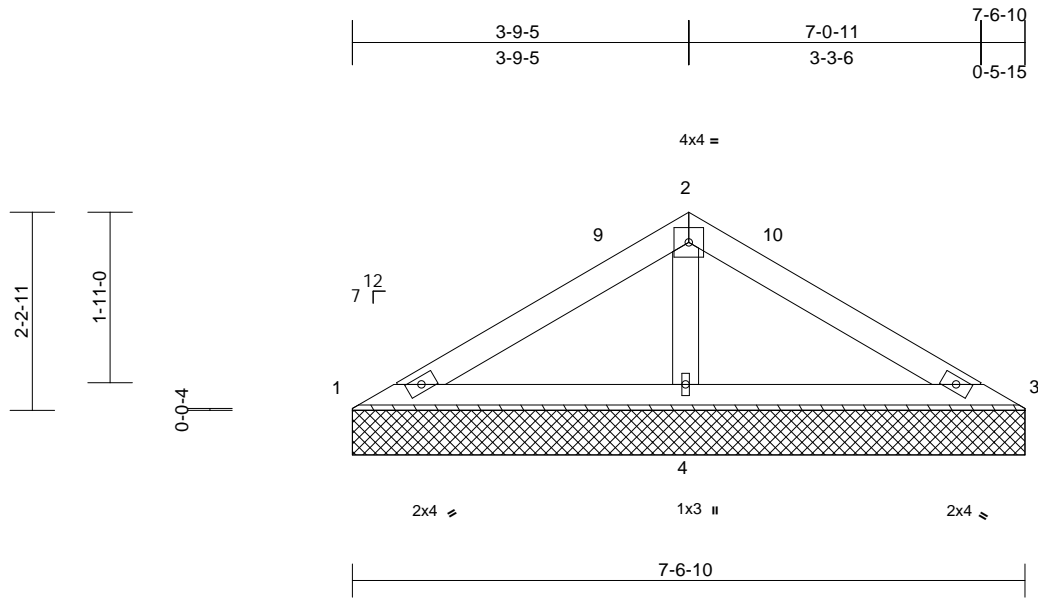
818 Soundside Road  
Edenton, NC 27932

Job Q-1901806-1	Truss V11	Truss Type Valley	Qty 1	Ply 1	Phillips' Gable RF-Roof Job Reference (optional)	E13608397
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Peak Truss Builders, LLC, New Hill, NC - 27562,

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Page: 1



Scale = 1:25.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a		
BCDL	10.0	Code	IBC2015/TPI2014	Matrix-MP						Weight: 25 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 7-6-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS**

(lb/size) 1=47/7-6-10, 3=52/7-6-10, 4=505/7-6-10  
Max Horiz 1=37 (LC 10)  
Max Uplift 1=2 (LC 21), 3=-1 (LC 11), 4=-74 (LC 11)  
Max Grav 1=73 (LC 20), 3=77 (LC 21), 4=505 (LC 1)

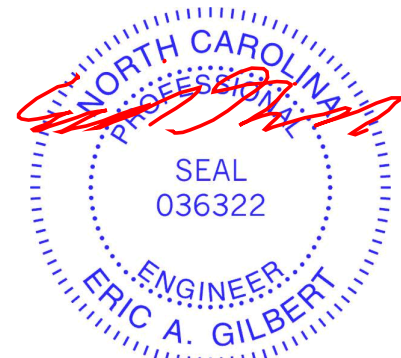
**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-9=-69/195, 2-9=-28/227, 2-10=-26/219, 3-10=-38/187  
BOT CHORD 1-4=-179/71, 3-4=-173/70  
WEBS 2-4=-352/80

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 3-9-12, Exterior (2) 3-9-12 to 6-6-9, Interior (1) 6-6-9 to 7-7-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.

- 5) Gable studs spaced at 4-0-0 oc.
  - 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) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 1, 1 lb uplift at joint 3 and 74 lb uplift at joint 4.
  - 9) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



October 8, 2019

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

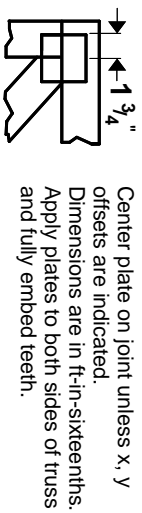
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



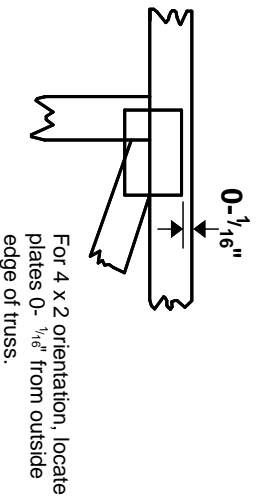
818 Soundside Road  
Edenton, NC 27932

# Symbols

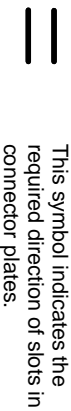
## PLATE LOCATION AND ORIENTATION



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- 1/8" from outside edge of truss.



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

## PLATE SIZE

4 X 4

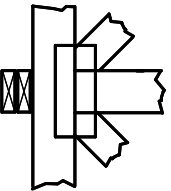
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

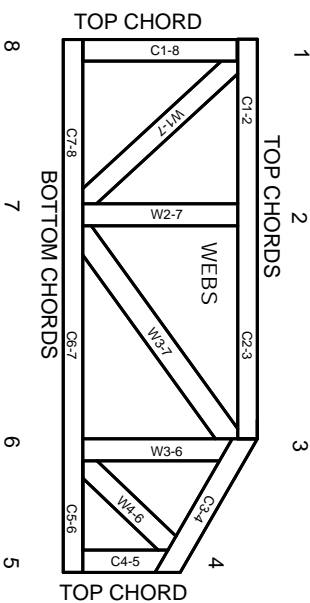


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: 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/TP1 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.