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Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 20041397  
NOF-14

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

Pages or sheets covered by this seal: I40898834 thru I40898855

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844



April 8, 2020

Sevier, Scott

**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	Truss	Truss Type	Qty	Ply	NOF-14	
20041397	A	COMMON TRUSS	9	1		I40898834

The Building Center, Gastonia, NC - 28052,

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ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-JfkFIn\_xkoFXqzqwq?wIMwPfwDparmpbhPm9zT5NB

0-10-8 9-1-7 18-0-0 26-10-9 36-0-0 36-10-8  
0-10-8 9-1-7 8-10-9 8-10-9 9-1-7 0-10-8

Scale: 3/16"=1'

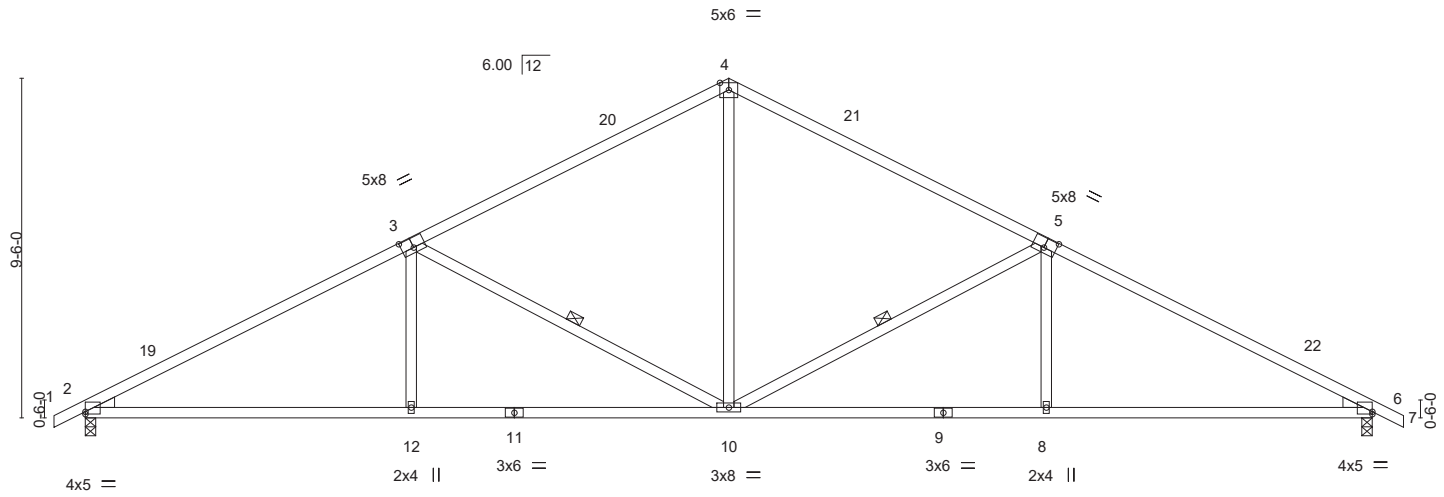


Plate Offsets (X,Y)-- [2:0-0-0,0-0-13], [3:0-4-0,0-3-4], [5:0-4-0,0-3-4], [6:Edge,0-0-13]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.79	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.85	Vert(LL) -0.14 10-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.45	Vert(CT) -0.34 10-12 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.11 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 174 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 5-10, 3-10

**REACTIONS.**

(size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=-129(LC 11)  
 Max Uplift 2=-146(LC 10), 6=-146(LC 11)  
 Max Grav 2=1493(LC 1), 6=1493(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2546/251, 3-4=-1749/252, 4-5=-1749/252, 5-6=-2546/251  
 BOT CHORD 2-12=-236/2177, 10-12=-236/2177, 8-10=-117/2177, 6-8=-117/2177  
 WEBS 4-10=-36/956, 5-10=-854/231, 5-8=0/362, 3-10=-854/231, 3-12=0/362

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 15-0-0, Exterior(2) 15-0-0 to 21-0-0, Interior(1) 21-0-0 to 33-10-8, Exterior(2) 33-10-8 to 36-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=146, 6=146.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 8, 2020

**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	Truss	Truss Type	Qty	Ply	NOF-14	
20041397	A1	COMMON TRUSS	6	1		I40898835

The Building Center, Gastonia, NC - 28052,

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ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-nslw7?av5NOS\_Y6OOX9laTaJJZ0Jl\_w2FRyIbzT5NA



Scale: 3/16"=1'

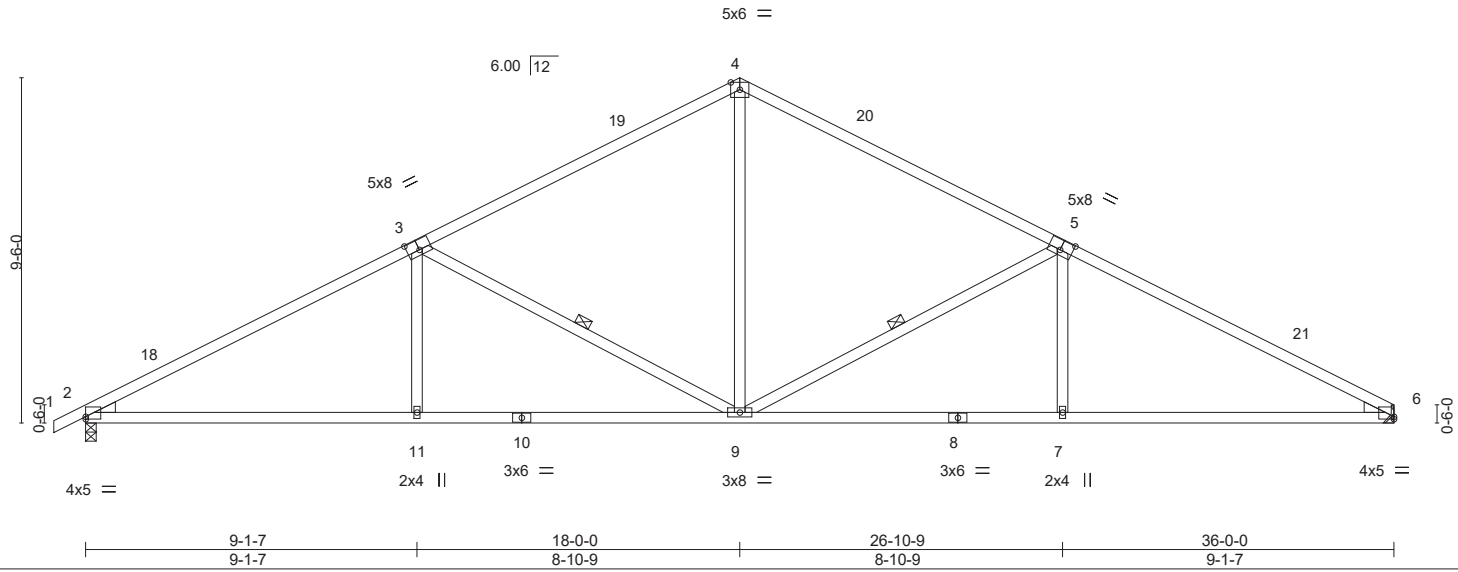


Plate Offsets (X,Y)-- [2:0-0-0,0-0-13], [3:0-4-0,0-3-4], [5:0-4-0,0-3-4], [6:Edge,0-0-13]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.80	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.85	Vert(LL) -0.14 7-9 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.46	Vert(CT) -0.34 9-11 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.11 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 172 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 5-9, 3-9

**REACTIONS.**

(size) 2=0-3-8, 6=Mechanical  
 Max Horz 2=135(LC 14)  
 Max Uplift 2=-147(LC 10), 6=-131(LC 11)  
 Max Grav 2=1493(LC 1), 6=1439(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2547/254, 3-4=-1750/254, 4-5=-1750/255, 5-6=-2551/260  
 BOT CHORD 2-11=-242/2178, 9-11=-242/2178, 7-9=-147/2182, 6-7=-147/2182  
 WEBS 4-9=-40/958, 5-9=-858/233, 5-7=0/363, 3-9=-854/231, 3-11=0/362

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 15-0-0, Exterior(2) 15-0-0 to 21-0-0, Interior(1) 21-0-0 to 33-0-0, Exterior(2) 33-0-0 to 36-0-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=147, 6=131.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 8, 2020

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	I40898836
20041397	A1GE	GABLE	1	1		

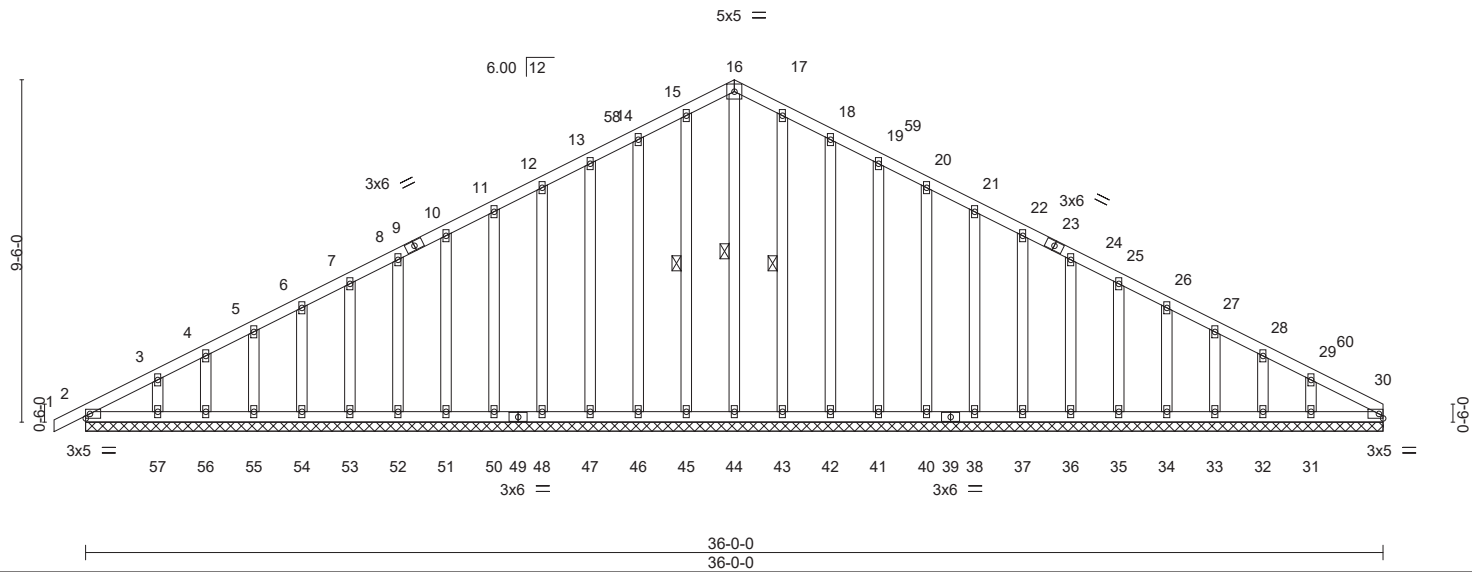
The Building Center, Gastonia, NC - 28052,

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ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-BRzm881So0lzJSHh3W4swC4GeXnRWILMKDfcvzT5N7



Scale: 3/16"=1'



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.01	30	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 293 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 16-44, 15-45, 17-43

**REACTIONS.**

All bearings 36-0-0.  
 (lb) - Max Horz 2=132(LC 14)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31  
 Max Grav All reactions 250 lb or less at joint(s) 2, 30, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 15-16=-85/259, 16-17=-85/259

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-10-8 to 2-0-0, Exterior(2) 2-0-0 to 15-0-0, Corner(3) 15-0-0 to 21-0-0, Exterior(2) 21-0-0 to 33-0-0, Corner(3) 33-0-0 to 36-0-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCCL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31.



April 8, 2020

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b>          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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY  <b>TRENCO</b>          A MiTek Affiliate          818 Soundside Road          Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	NOF-14	I40898837
20041397	AGE	GABLE	1	1		

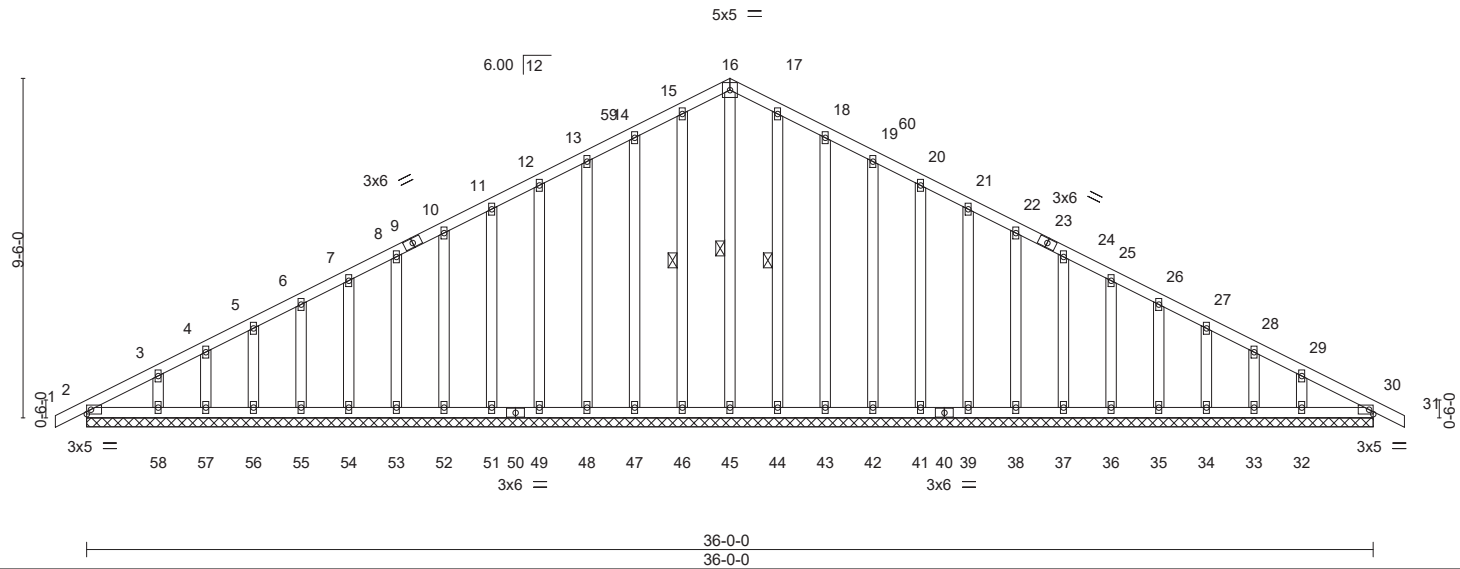
The Building Center, Gastonia, NC - 28052,

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ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-b0fvmA3K5x7YAv0GifeZxrintkpHj64pQBuhVfzT5N4

-0-10-8 18-0-0 36-0-0 36-10-8  
0-10-8 18-0-0 18-0-0 0-10-8

Scale: 3/16"=1'



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.09	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 30 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.10	Vert(CT) -0.00 30 n/r 90		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 30 n/a n/a		
	Code IRC2015/TPI2014			Weight: 295 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 16-45, 15-46, 17-44

**REACTIONS.**

All bearings 36-0-0.  
(lb) - Max Horz 2=-129(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 44, 43, 42, 41, 39, 38, 37, 36, 35, 34, 33, 32  
Max Grav All reactions 250 lb or less at joint(s) 2, 30, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 44, 43, 42, 41, 39, 38, 37, 36, 35, 34, 33, 32

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 15-16=-84/261, 16-17=-84/261

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-0-0, Exterior(2) 2-0-0 to 15-0-0, Corner(3) 15-0-0 to 21-0-0, Exterior(2) 21-0-0 to 33-10-8, Corner(3) 33-10-8 to 36-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 44, 43, 42, 41, 39, 38, 37, 36, 35, 34, 33, 32.



April 8, 2020

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	140898838
20041397	B	COMMON	2	1		

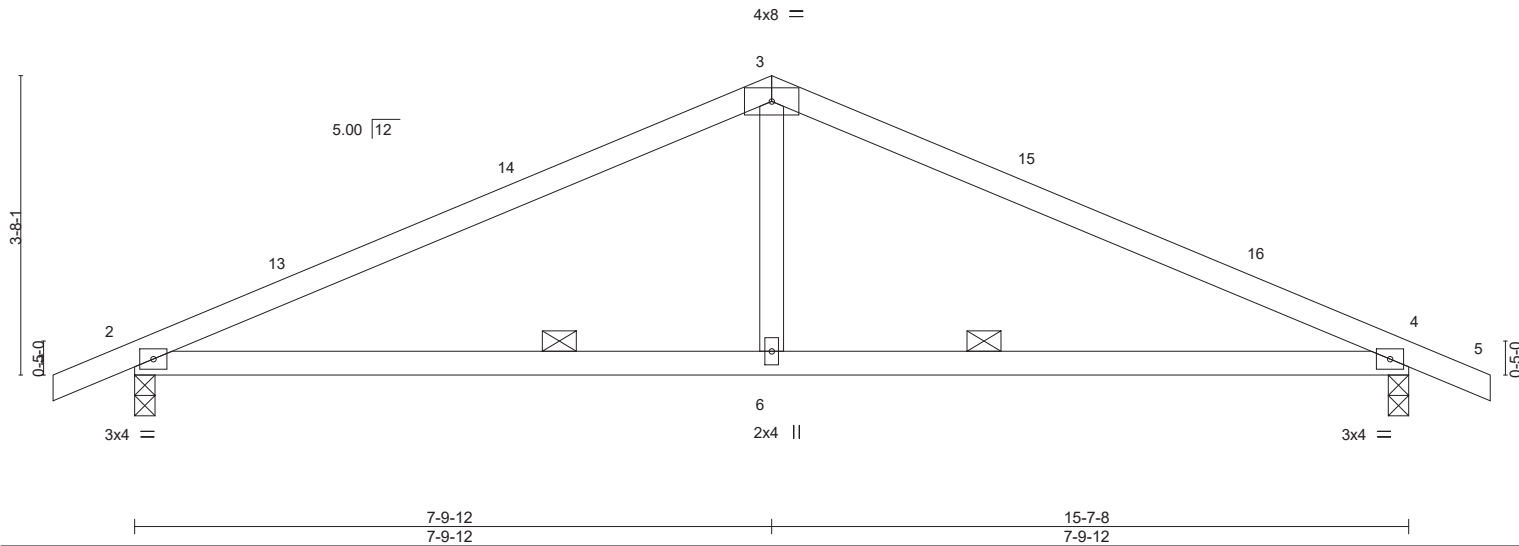
The Building Center, Gastonia, NC - 28052,

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ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-YOnfBs5bdZNGPD9es4g1dGo\_EYlKB\_06tUNNa8zT5N2



Scale = 1:28.3



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	-0.09	6-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.19	6-9	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	4	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-AS					Weight: 57 lb	FT = 20%

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

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

**REACTIONS.** (size) 2=0-3-0, 4=0-3-0  
Max Horz 2=-50(LC 11)  
Max Uplift 2=-77(LC 10), 4=-77(LC 11)  
Max Grav 2=685(LC 1), 4=685(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-991/156, 3-4=-991/156  
BOT CHORD 2-6=-53/843, 4-6=-53/843  
WEBS 3-6=0/349

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 4-9-12, Exterior(2) 4-9-12 to 10-9-12, Interior(1) 10-9-12 to 13-7-8, Exterior(2) 13-7-8 to 16-7-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord.



April 8, 2020

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	NOF-14	I40898839
20041397	B1	COMMON	3	1		

The Building Center, Gastonia, NC - 28052,

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ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-0bK1PC6DOsV71NkrQnBG9TK8UyiwSSF686x6azT5N1



Scale = 1:25.5

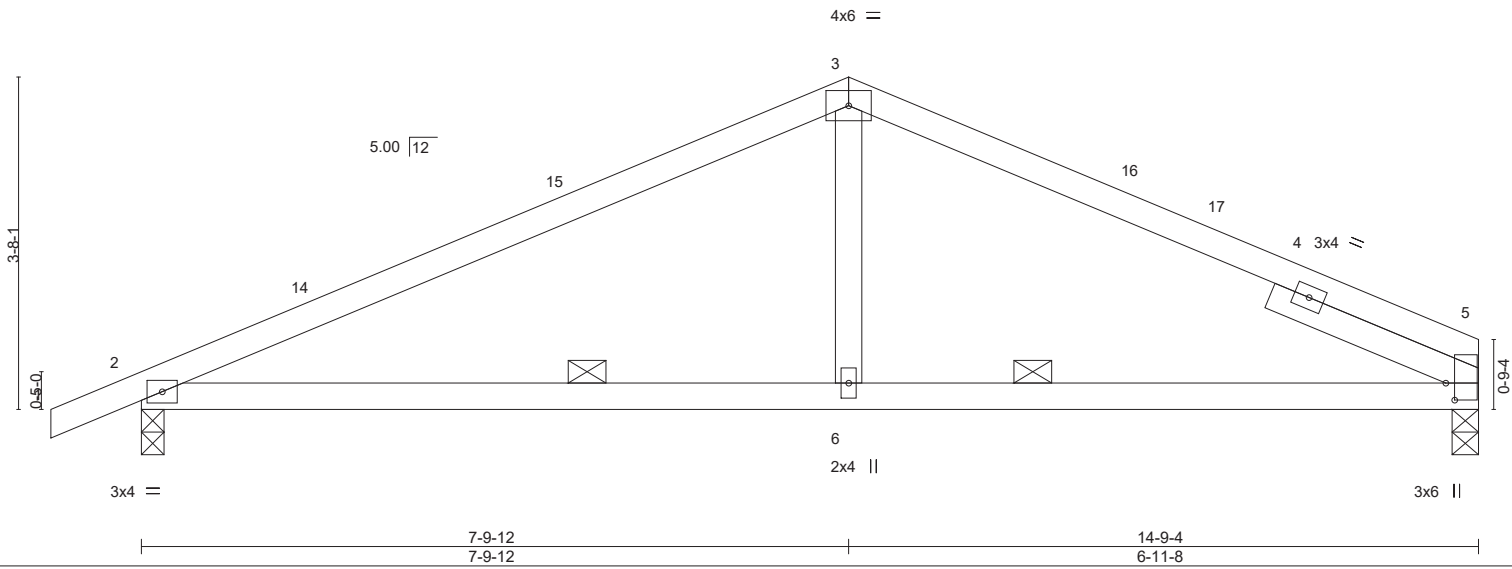


Plate Offsets (X,Y)-- [5:0-2-4,0-1-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.70	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.63	Vert(LL) -0.10 6-13 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.12	Vert(CT) -0.21 6-13 >838 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 5 n/a n/a		
	Code IRC2015/TPI2014			Weight: 56 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Right 2x4 SP No.3 -x 2-6-0

**BRACING-**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD 6-0-0 oc bracing.

**REACTIONS.**

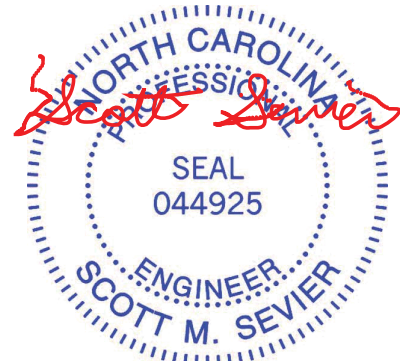
(size) 5=0-3-8, 2=0-3-0  
 Max Horz 2=62(LC 10)  
 Max Uplift 5=-52(LC 11), 2=-76(LC 10)  
 Max Grav 5=589(LC 1), 2=653(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-886/162, 3-5=-825/164  
 BOT CHORD 2-6=-86/745, 5-6=-86/745  
 WEBS 3-6=0/316

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 4-9-12, Exterior(2) 4-9-12 to 10-9-12, Interior(1) 10-9-12 to 11-9-4, Exterior(2) 11-9-4 to 14-9-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord.



April 8, 2020

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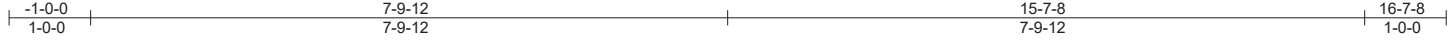
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	
20041397	BGE	COMMON SUPPORTED GAB	1	1		I40898840

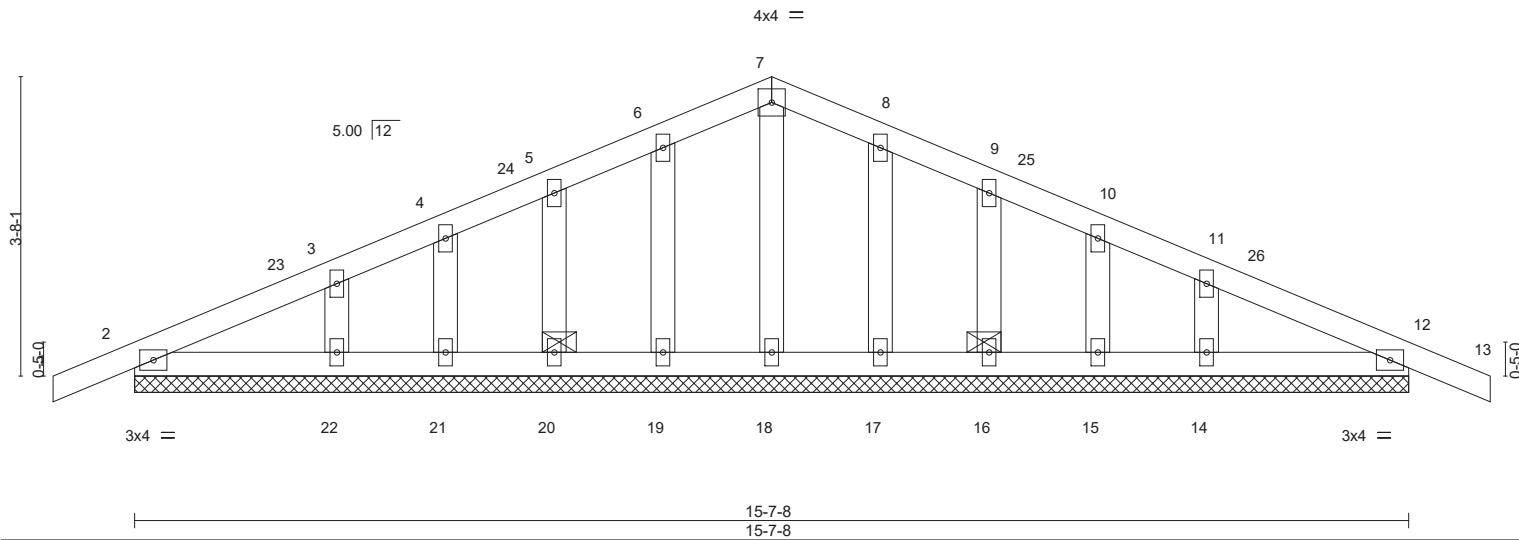
The Building Center, Gastonia, NC - 28052,

8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:38 2020 Page 1

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Scale = 1:28.3



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	12	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	12	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S						Weight: 77 lb	FT = 20%

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

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

**REACTIONS.** All bearings 15-7-8.  
(lb) - Max Horz 2=-50(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14  
Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 19, 20, 21, 22, 17, 16, 15, 14

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 4-9-12, Corner(3) 4-9-12 to 10-9-12, Exterior(2) 10-9-12 to 13-7-8, Corner(3) 13-7-8 to 16-7-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



April 8, 2020

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	NOF-14	I40898841
20041397	D	COMMON TRUSS	1	1		

The Building Center, Gastonia, NC - 28052,

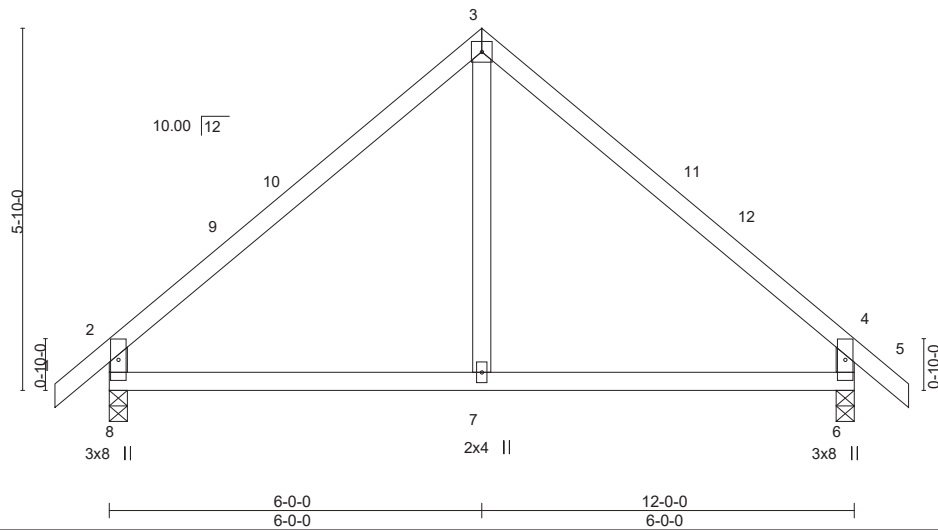
8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:40 2020 Page 1

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4x4 =

Scale = 1:37.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	-0.02	7-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.04	7-8	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-AS					Weight: 54 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.**

(size) 8=0-3-8, 6=0-3-8  
 Max Horz 8=116(LC 9)  
 Max Uplift 8=-48(LC 10), 6=-48(LC 11)  
 Max Grav 8=530(LC 1), 6=530(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-479/90, 3-4=-479/90, 2-8=-476/139, 4-6=-476/139  
 BOT CHORD 7-8=0/291, 6-7=0/291  
 WEBS 3-7=0/251

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-0-0, Exterior(2) 3-0-0 to 9-0-0, Interior(1) 9-0-0 to 9-10-8, Exterior(2) 9-10-8 to 12-10-8 zone; cantilever left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 8, 2020

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	
20041397	DGE	GABLE	1	1		I40898842

The Building Center, Gastonia, NC - 28052,

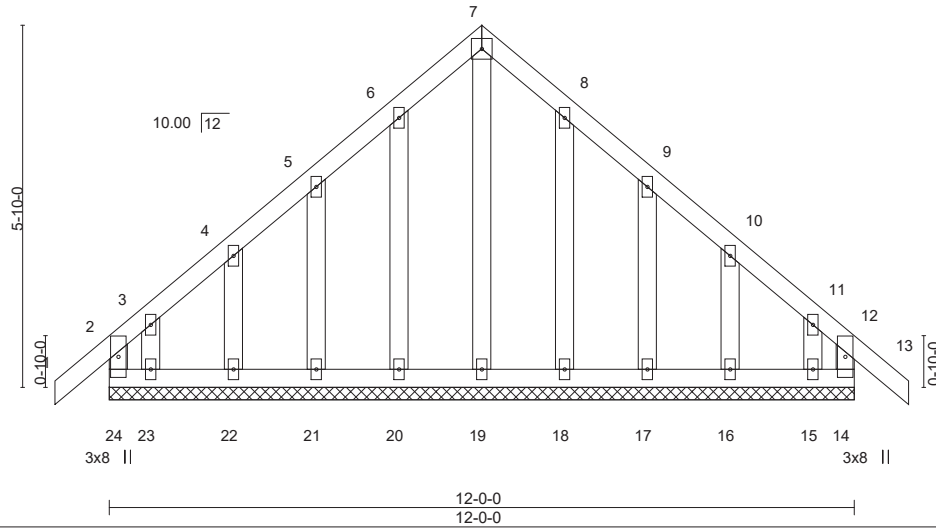
8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:41 2020 Page 1

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4x4 =

Scale = 1:37.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	13	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	13	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	14	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-R					Weight: 84 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

All bearings 12-0-0.  
(lb) - Max Horz 24=-116(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 20, 21, 22, 18, 17, 16 except 23=-121(LC 10), 15=-107(LC 11)  
Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 17, 16, 15

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-0-0, Exterior(2) 2-0-0 to 3-0-0, Corner(3) 3-0-0 to 9-0-0, Exterior(2) 9-0-0 to 9-10-8, Corner(3) 9-10-8 to 12-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 14, 20, 21, 22, 18, 17, 16 except (jt=lb) 23=121, 15=107.



April 8, 2020

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	
20041397	DGR	COMMON GIRDER	1	<b>2</b>		I40898843

The Building Center, Gastonia, NC - 28052,

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4x5 ||

Scale = 1:37.1

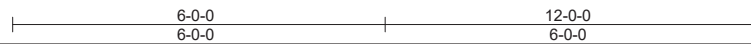
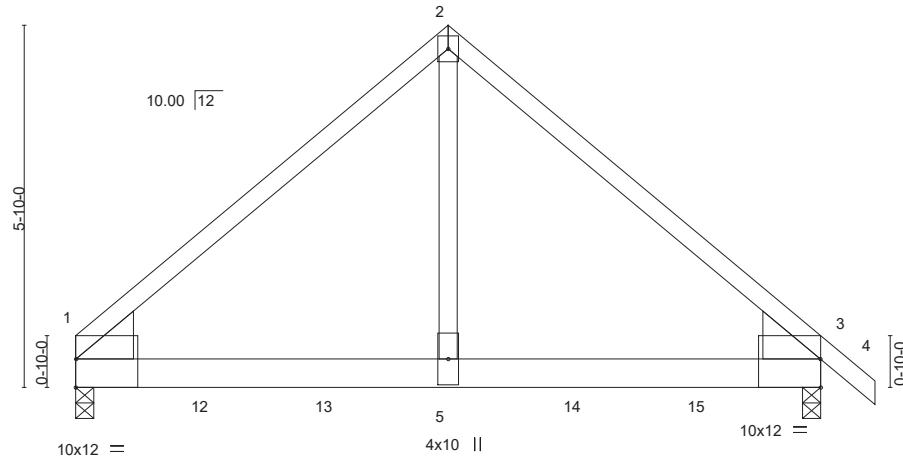


Plate Offsets (X,Y)-- [1:Edge,0-5-8], [1:0-2-14,0-0-1], [1:0-0-1,0-0-0], [3:0-0-1,0-0-0], [3:0-2-14,0-0-1], [3:Edge,0-5-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.52	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(LL) -0.06 5-11 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.97	Vert(CT) -0.11 5-11 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MSH	Horz(CT) 0.02 1 n/a n/a		
	Code IRC2015/TPI2014			Weight: 137 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP DSS  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x10 SP No.2, Right: 2x10 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 3=0-3-8, 1=0-3-8  
 Max Horz 1=-111(LC 23)  
 Max Uplift 3=-404(LC 9), 1=-383(LC 8)  
 Max Grav 3=4113(LC 1), 1=3997(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-4061/442, 2-3=-4061/442  
 BOT CHORD 1-5=-270/3043, 3-5=-270/3043  
 WEBS 2-5=-442/4708

**NOTES-**

- 2-ply truss to be connected together with 10d (0.148"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TC DL=5.0psf; BC DL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 3=404, 1=383.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1419 lb down and 151 lb up at 2-0-12, 1419 lb down and 151 lb up at 4-0-12, 1419 lb down and 151 lb up at 6-0-12, and 1419 lb down and 151 lb up at 8-0-12, and 1419 lb down and 151 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Continued on page 2



April 8, 2020

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	
20041397	DGR	COMMON GIRDER	1	<b>2</b>		I40898843

The Building Center, Gastonia, NC - 28052,

8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:43 2020 Page 2  
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**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-2=-60, 2-4=-60, 6-9=-20

Concentrated Loads (lb)

Vert: 5=-1419(B) 12=-1419(B) 13=-1419(B) 14=-1419(B) 15=-1419(B)

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 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	
20041397	F	COMMON	5	1		I40898844

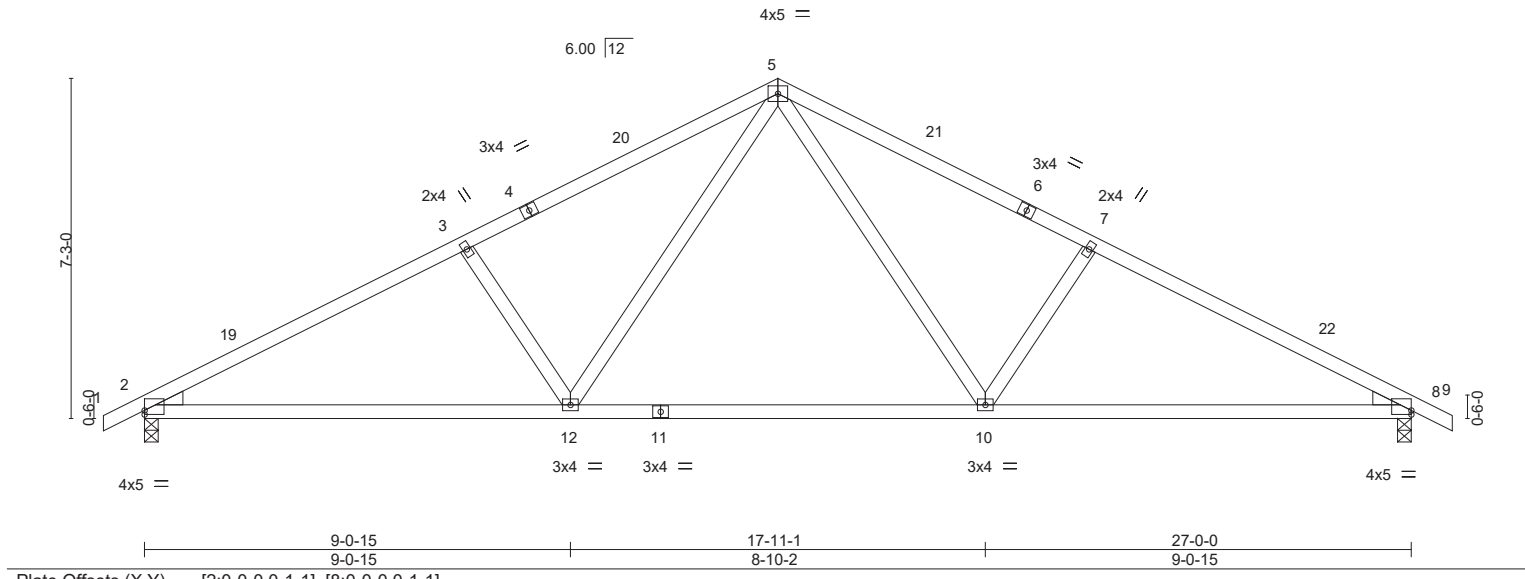
The Building Center, Gastonia, NC - 28052,

8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:44 2020 Page 1

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0-10-8 6-10-7 13-6-0 20-1-9 27-0-0 27-10-8  
0-10-8 6-10-7 6-7-9 6-7-9 6-10-7 0-10-8

Scale = 1:49.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.46	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.95	Vert(LL) -0.43 10-12 >762 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.29	Vert(CT) -0.56 10-12 >575 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.06 8 n/a n/a		
	Code IRC2015/TPI2014			Weight: 126 lb	FT = 20%

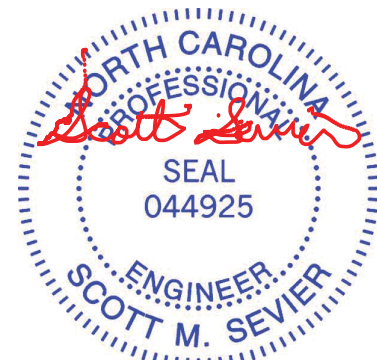
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
Max Horz 2=98(LC 10)  
Max Uplift 2=-114(LC 10), 8=-114(LC 11)  
Max Grav 2=1133(LC 1), 8=1133(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1916/219, 3-5=-1739/234, 5-7=-1739/234, 7-8=-1916/219  
BOT CHORD 2-12=-183/1647, 10-12=-33/1117, 8-10=-105/1647  
WEBS 5-10=-88/703, 7-10=-396/191, 5-12=-87/703, 3-12=-396/191

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-6-0, Exterior(2) 10-6-0 to 16-6-0, Interior(1) 16-6-0 to 24-10-8, Exterior(2) 24-10-8 to 27-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCCL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=114, 8=114.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 8, 2020

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	
20041397	FGE	GABLE	1	1		I40898845

The Building Center, Gastonia, NC - 28052, 8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:47 2020 Page 1  
 ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-BiVciyE6oFuZr34yZbur6oIAfNbd?RXteMH0\_RzT5Ms  
 -0-10-8 13-6-0 27-0-0 27-10-8  
 0-10-8 13-6-0 13-6-0 0-10-8

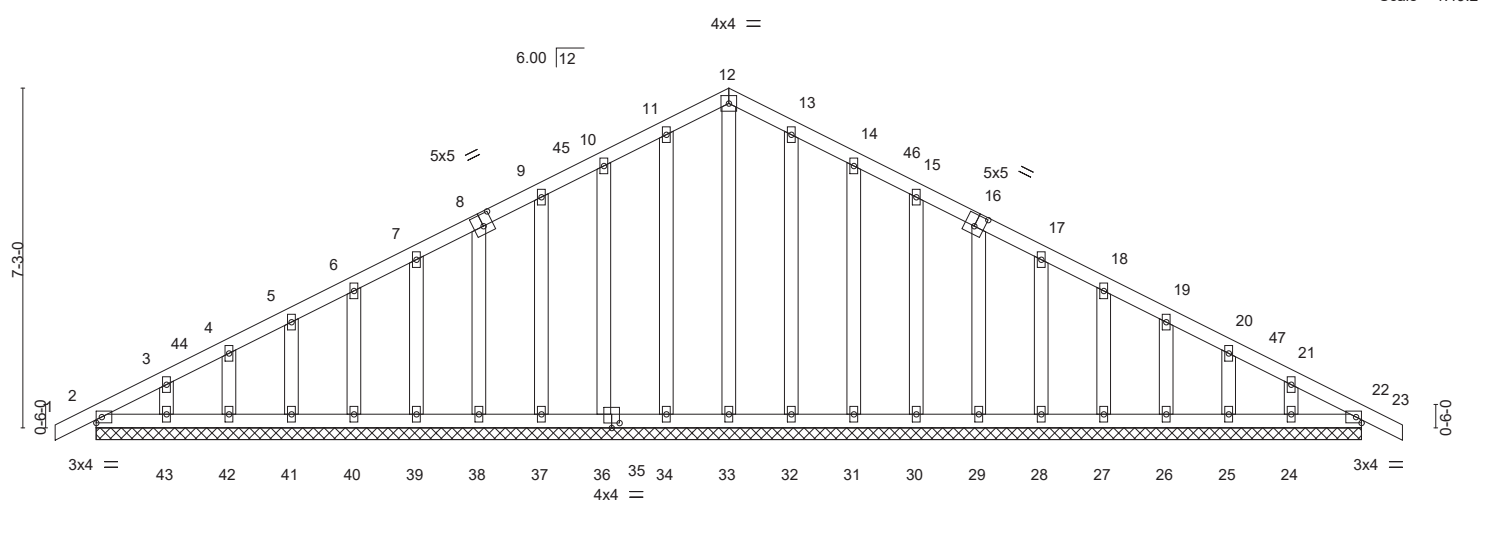


Plate Offsets (X,Y)--	[8:0-2-8,0-3-0], [16:0-2-8,0-3-0], [35:0-2-0,0-1-4], [35:0-0-0,0-1-12], [36:0-1-12,0-0-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 22 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.10	Vert(CT) -0.00 23 n/r 90		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 22 n/a n/a		
	Code IRC2015/TPI2014			Weight: 188 lb	FT = 20%

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

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

**REACTIONS.** All bearings 27-0-0.  
 (lb) - Max Horz 2=98(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 34, 36, 37, 38, 39, 40, 41, 42, 43, 32, 31, 30, 29, 28, 27, 26, 25, 24  
 Max Grav All reactions 250 lb or less at joint(s) 2, 22, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 32, 31, 30, 29, 28, 27, 26, 25, 24

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 10-6-0, Corner(3) 10-6-0 to 16-6-0, Exterior(2) 16-6-0 to 24-10-8, Corner(3) 24-10-8 to 27-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 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 requires continuous bottom chord bearing.
  - Gable studs spaced at 1-4-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 34, 36, 37, 38, 39, 40, 41, 42, 43, 32, 31, 30, 29, 28, 27, 26, 25, 24.



April 8, 2020

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b>          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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY  <b>TRENCO</b>          A MiTek Affiliate          818 Soundside Road          Edenton, NC 27932</p>
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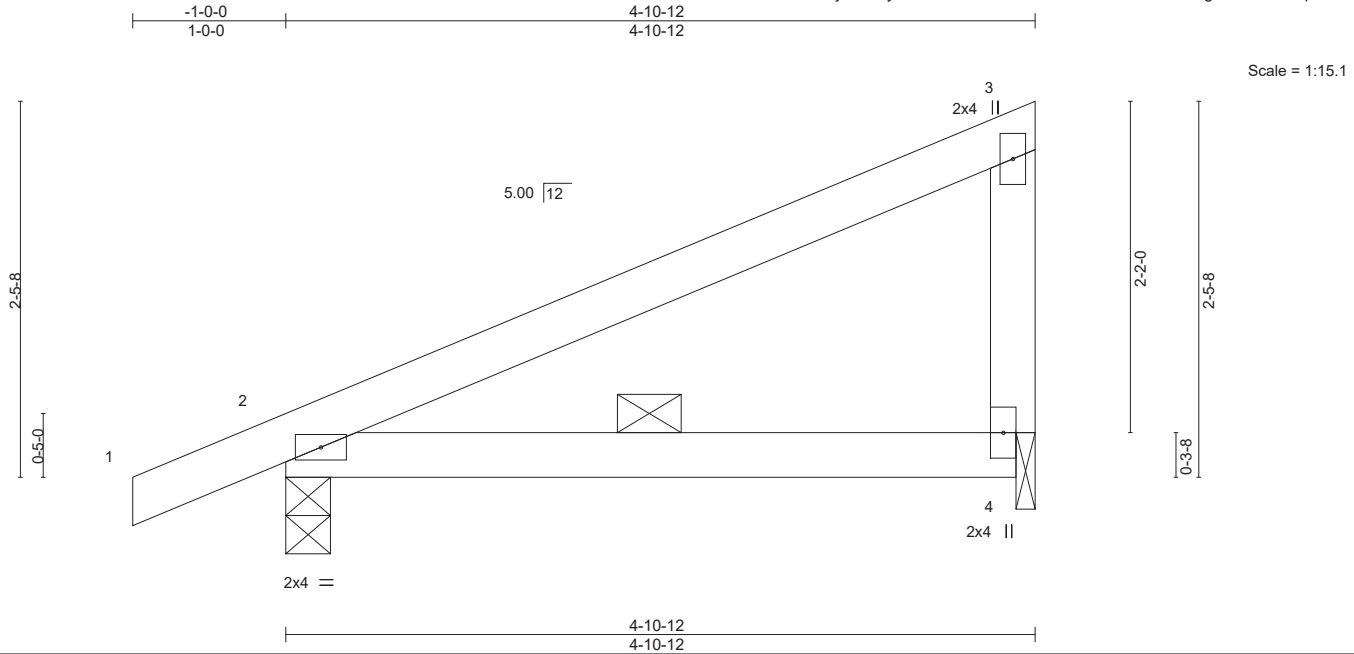


Job 20041397	Truss H	Truss Type MONOPITCH	Qty 9	Ply 1	NOF-14	I40898846
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ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-85dy7eGNKs8H5NELh0wJBDNTVBDaTMY95gm73KzT5Mq



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.30	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.25	Vert(LL) -0.02 4-7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.05 4-7 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.00 2 n/a n/a		
	Code IRC2015/TPI2014			Weight: 20 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD 4-0-0 oc bracing.

**REACTIONS.**

(size) 2=0-3-8, 4=0-1-8  
Max Horz 2=74(LC 10)  
Max Uplift 2=-32(LC 10), 4=-40(LC 10)  
Max Grav 2=256(LC 1), 4=184(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord.



April 8, 2020

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	I40898847
20041397	HGE	GABLE	1	1		

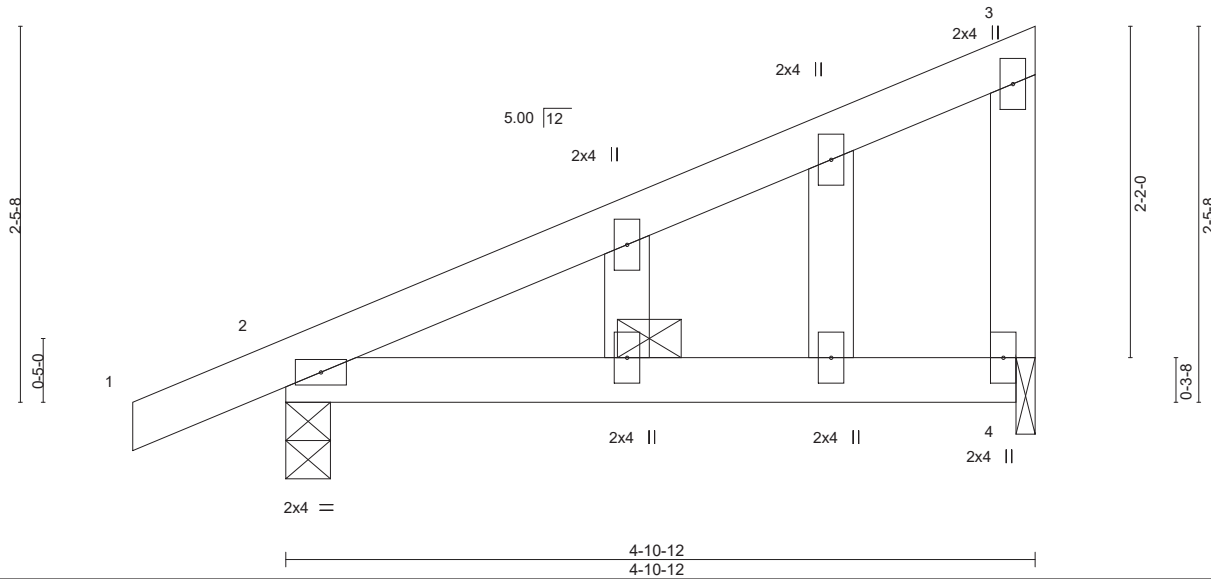
The Building Center, Gastonia, NC - 28052,

8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:50 2020 Page 1

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Scale = 1:15.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	-0.02 4-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.05 4-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-AS					Weight: 23 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD 4-0-0 oc bracing.

**REACTIONS.**

(size) 2=0-3-8, 4=0-1-8  
 Max Horz 2=74(LC 10)  
 Max Uplift 2=-32(LC 10), 4=-40(LC 10)  
 Max Grav 2=256(LC 1), 4=184(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable studs spaced at 1-4-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord.



April 8, 2020

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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	140898848
20041397	R1	MONOPITCH TRUSS	4	1		

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Scale = 1:15.4

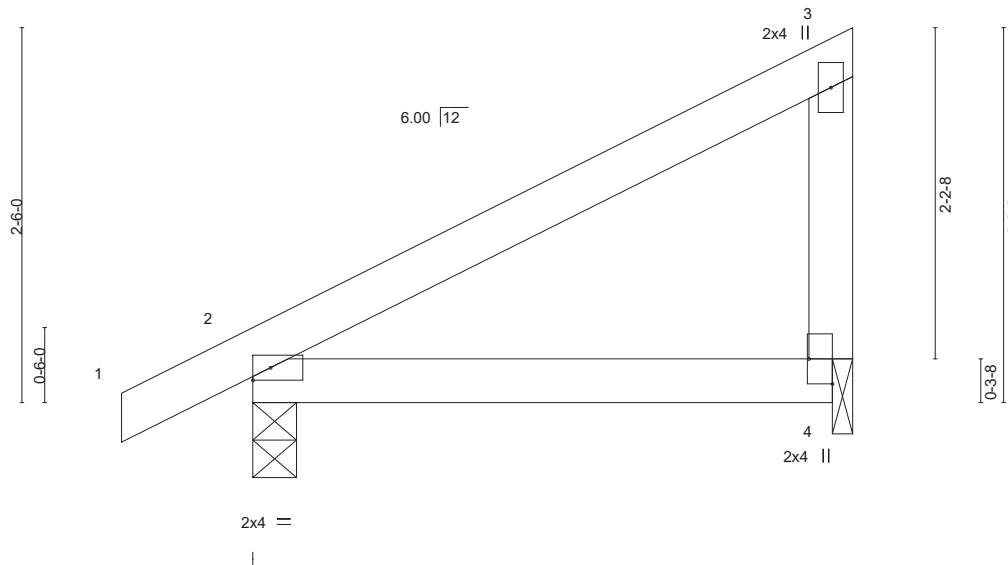


Plate Offsets (X,Y)-- [4:Edge,0-1-14]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.15	Vert(LL) -0.01 4-7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.02 4-7 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.00 2 n/a n/a		
	Code IRC2015/TPI2014			Weight: 17 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.**

(size) 2=0-3-8, 4=0-1-10  
 Max Horz 2=73(LC 10)  
 Max Uplift 2=-21(LC 10), 4=-39(LC 10)  
 Max Grav 2=213(LC 1), 4=148(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 8, 2020

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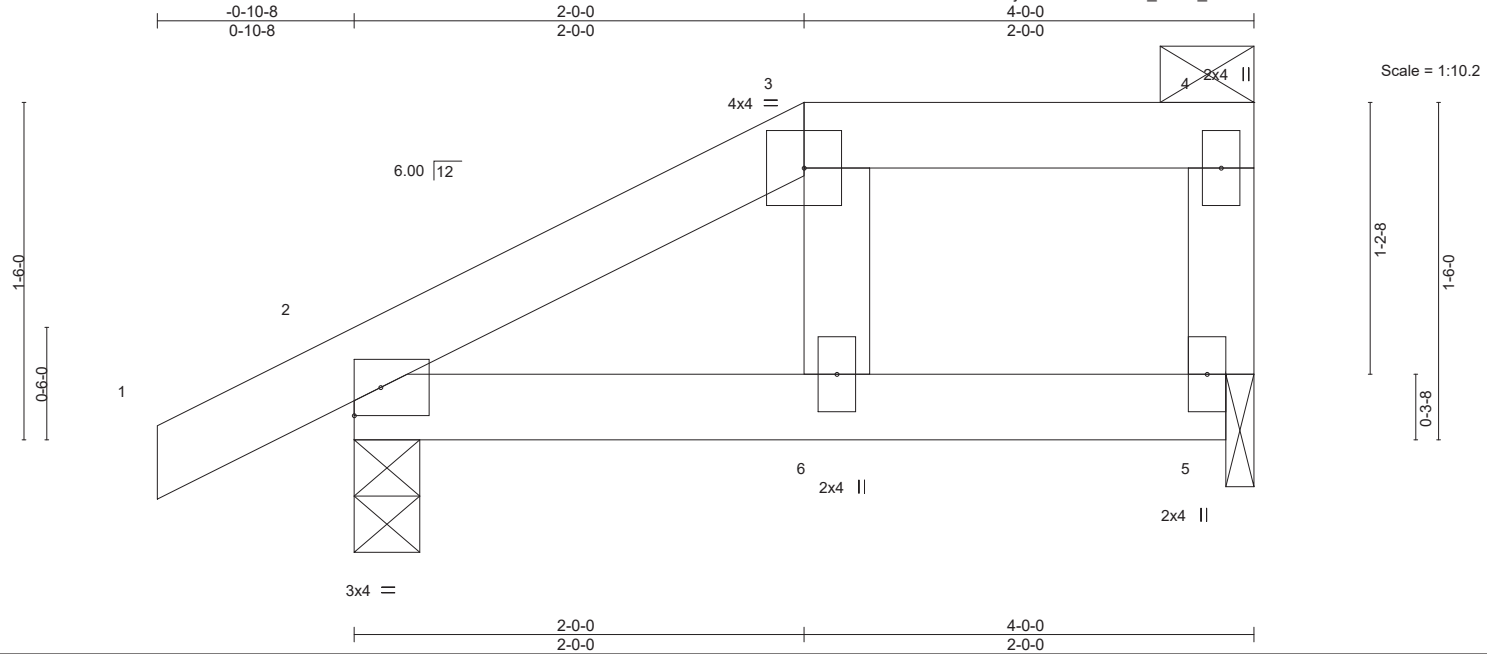
818 Soundside Road  
 Edenton, NC 27932

Job 20041397	Truss R1HGR	Truss Type HALF HIP GIRDER	Qty 1	Ply 1	NOF-14	I40898849
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8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:53 2020 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.39	Vert(LL) -0.02 6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Vert(CT) -0.04 6 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MP	Horz(CT) 0.01 2 n/a n/a		
	Code IRC2015/TPI2014			Weight: 16 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 2=0-3-8, 5=0-1-8  
Max Horz 2=44(LC 8)  
Max Uplift 2=-31(LC 8), 5=-22(LC 5)  
Max Grav 2=224(LC 1), 5=162(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TC DL=5.0psf; BC DL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 27 lb down and 30 lb up at 2-0-0 on top chord, and 19 lb down at 2-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-60, 5-7=-20  
Concentrated Loads (lb)  
Vert: 3=-7(B) 6=-19(B)



April 8, 2020

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	I40898850
20041397	R2	JACK-OPEN TRUSS	1	1		

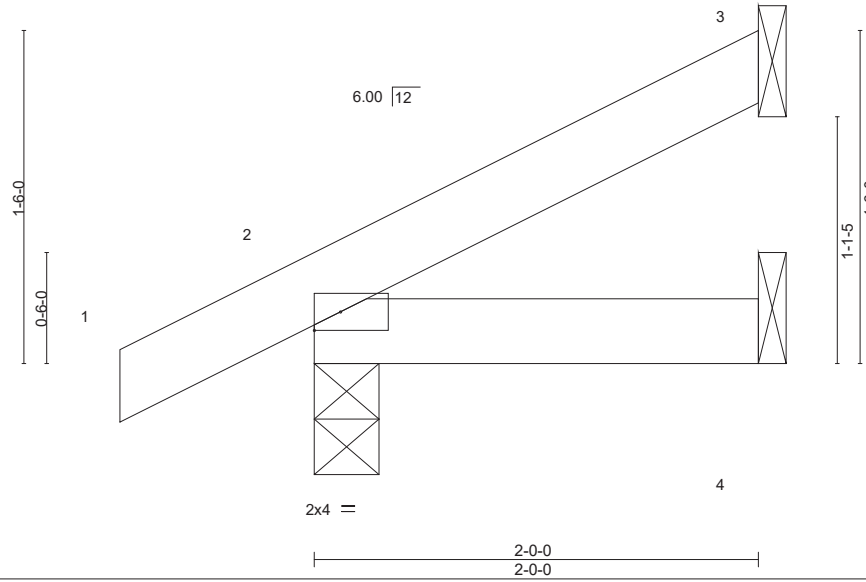
The Building Center, Gastonia, NC - 28052,

8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:54 2020 Page 1

ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-U2QrBMKV8OmZB86ITZWuG4NhC\_w8cnvFyTukXzT5MI



Scale = 1:10.4



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.08	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) -0.00 7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.00 4-7 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MP	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 8 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=43(LC 10)  
Max Uplift 3=-25(LC 10), 2=-28(LC 10)  
Max Grav 3=65(LC 1), 2=205(LC 1), 4=49(LC 3)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-80(F=-20), 4-5=-40(F=-20)



April 8, 2020

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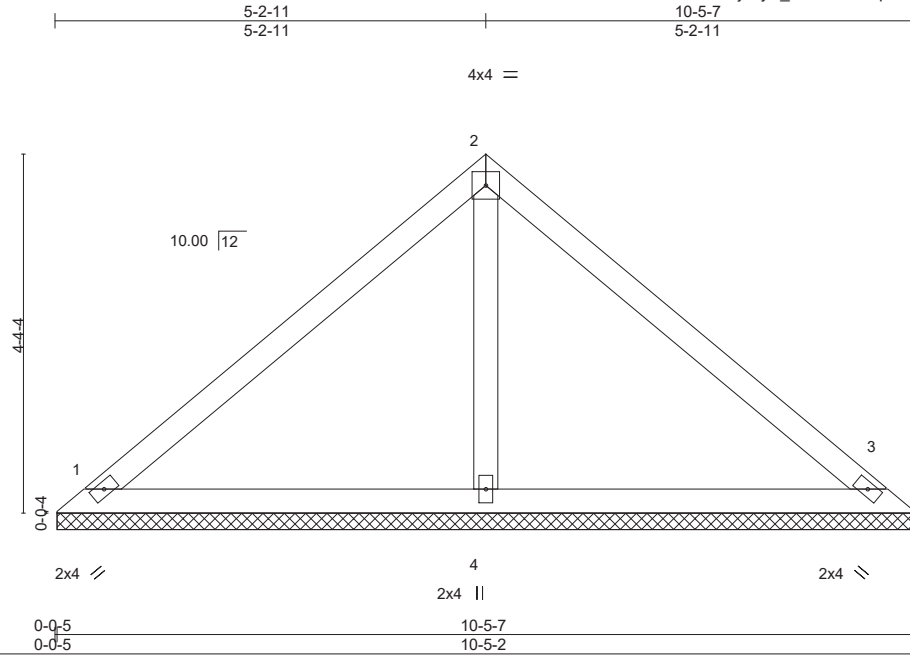
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	I40898851
20041397	V1	Valley Truss	1	1		

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8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:55 2020 Page 1

ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-yE\_DOhK8viuQphU1G1jRUdUTcHGt2s2UcDRGzzT5Mk



Scale = 1:27.9

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 40 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 1=10-4-13, 3=10-4-13, 4=10-4-13  
Max Horz 1=-81(LC 6)  
Max Uplift 1=-26(LC 11), 3=-36(LC 11), 4=-4(LC 10)  
Max Grav 1=204(LC 1), 3=204(LC 1), 4=363(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



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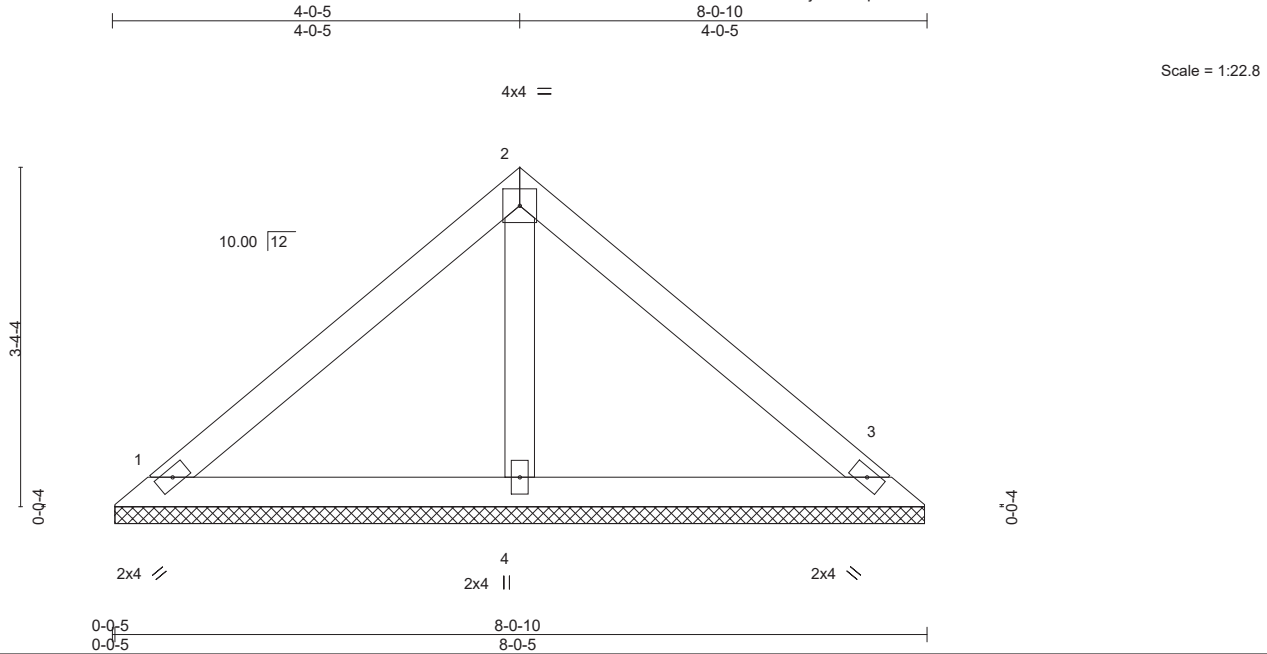
818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	NOF-14	I40898852
20041397	V2	Valley Truss	1	1		

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8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:57 2020 Page 1  
ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-vd6zpNMORJ982brt9h3BWvirFPzJLzVLxviYLSzT5Mi



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 30 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 1=8-0-0, 3=8-0-0, 4=8-0-0  
Max Horz 1=-61(LC 6)  
Max Uplift 1=-28(LC 11), 3=-35(LC 11)  
Max Grav 1=166(LC 1), 3=166(LC 1), 4=247(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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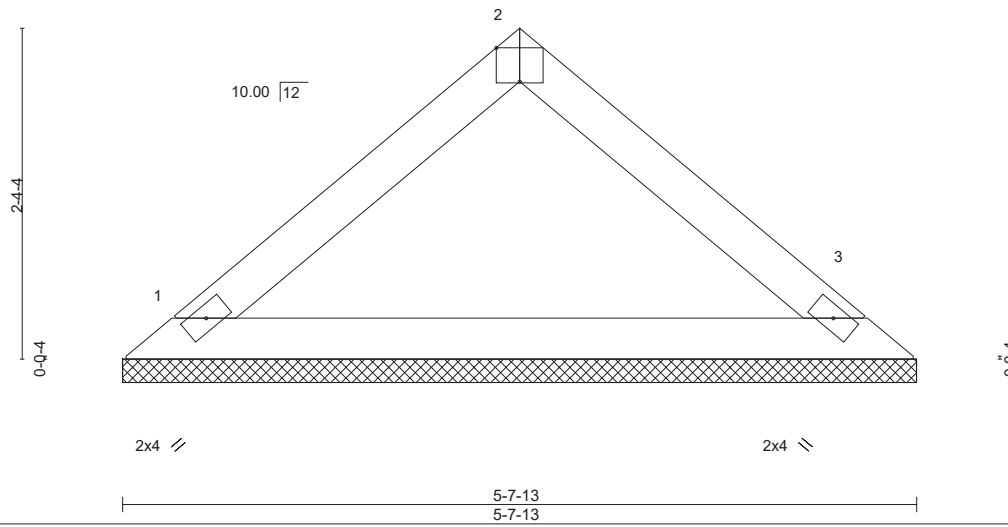
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	I40898853
20041397	V3	GABLE	1	1		

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8.330 s Mar 23 2020 MiTek Industries, Inc. Tue Apr 7 13:34:58 2020 Page 1  
 ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-NpfM0jN0CdH?gIQ3iPaQ26F2lpH\_4QmUAZS5tlzT5Mh



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	2-0-0	TC	0.11	Vert(LL)	n/a	-	n/a	L/d	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	n/a	-	n/a	999			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a			
BCDL	10.0	Code IRC2015/TPI2014	YES	Matrix-P								Weight: 18 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-7-13 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-7-13, 3=5-7-13  
 Max Horz 1=-41(LC 6)  
 Max Uplift 1=-14(LC 10), 3=-14(LC 11)  
 Max Grav 1=194(LC 1), 3=194(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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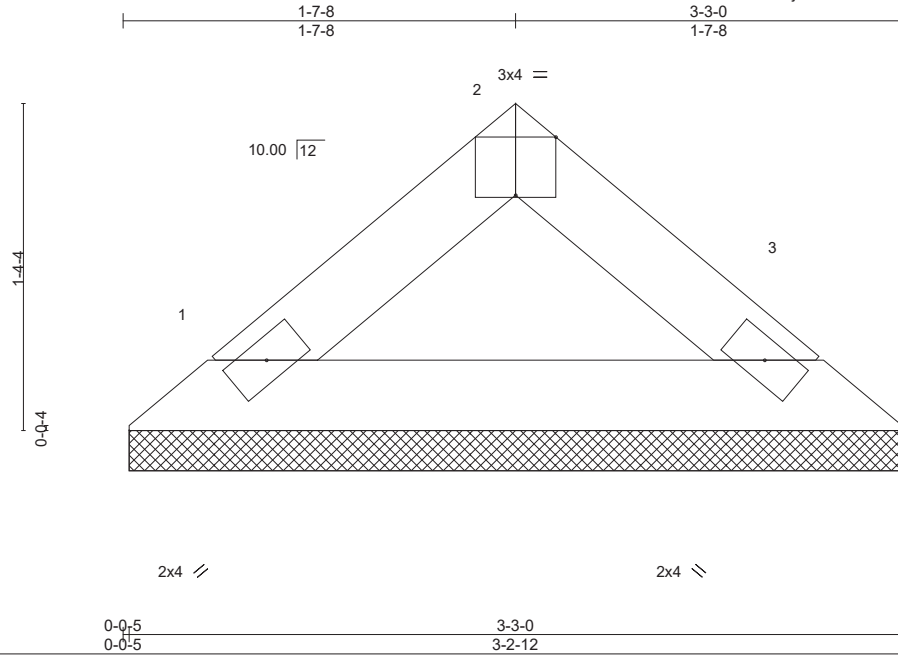
818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	NOF-14	
20041397	V4	Valley Truss	1	1		I40898854

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ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-r0DkE3OezxPslv?GG65fbKnEIDgmpI0ePDBPlzT5Mg



Scale = 1:9.5

Plate Offsets (X,Y)--	[2:0-2-0,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.02	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 10 lb	FT = 20%

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

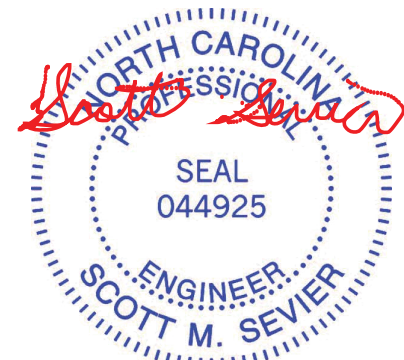
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-3-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-2-7, 3=3-2-7  
Max Horz 1=21(LC 9)  
Max Uplift 1=-7(LC 10), 3=-7(LC 11)  
Max Grav 1=98(LC 1), 3=98(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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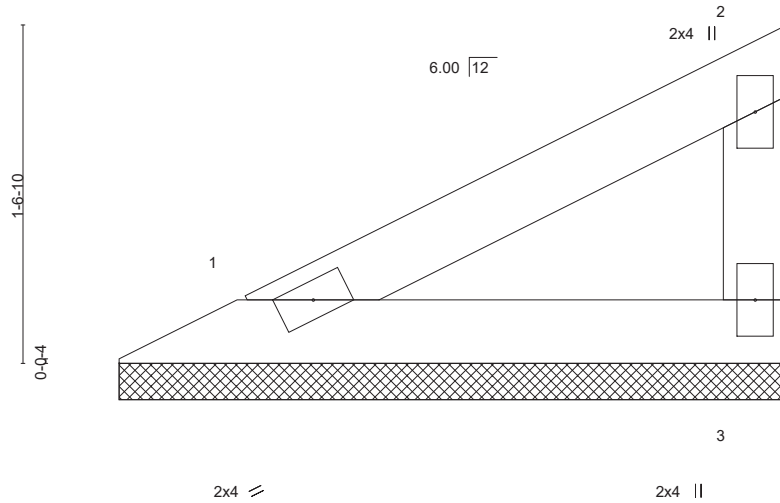
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	NOF-14	I40898855
20041397	V5	Valley	1	1		

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ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-nOLUfPuVYfaXD9eOX87gtZI0NOHnWwsXglUdzT5Me  
3-1-5  
3-1-5



Scale = 1:10.6

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.09	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 - n/a n/a		
	Code IRC2015/TPI2014			Weight: 10 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-1-5 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=3-0-13, 3=3-0-13  
Max Horz 1=37(LC 10)  
Max Uplift 1=-4(LC 10), 3=-23(LC 10)  
Max Grav 1=93(LC 1), 3=93(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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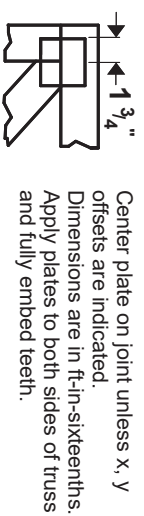
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

### PLATE LOCATION AND ORIENTATION



Center plate on joint unless X, Y offsets are indicated. Dimensions are in fin-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 location details available in **MITek 20/20** software or upon request.

### PLATE SIZE

4 X 4

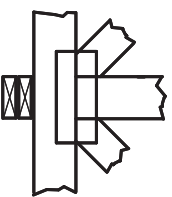
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

### LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or L bracing if indicated.

### BEARING



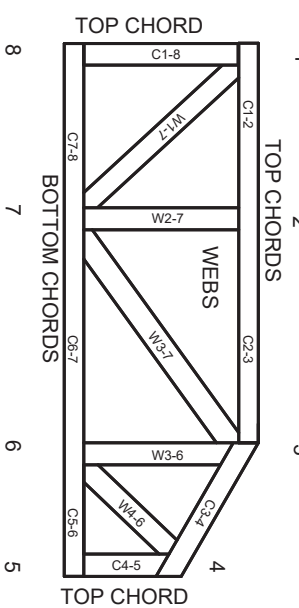
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TPI1: 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

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



**JOINTS ARE GENERALLY NUMBERED/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: MIL-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 1 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.