

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 21438A  
240.2596.D.10x10CVP

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I37798242 thru I37798272

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

North Carolina COA: C-0844



July 16, 2019

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Liu, Xuegang

**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 21438A	Truss AE	Truss Type GABLE	Qty 1	Ply 1	240.2596.D.10x10CVP	137798242
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:27:53 2019 Page 1  
 ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-100arheCYfAC1w0plii4Kmdz94oBARjDjyV7vPyxLUK



3x4 =

Scale: 3/8"=1'

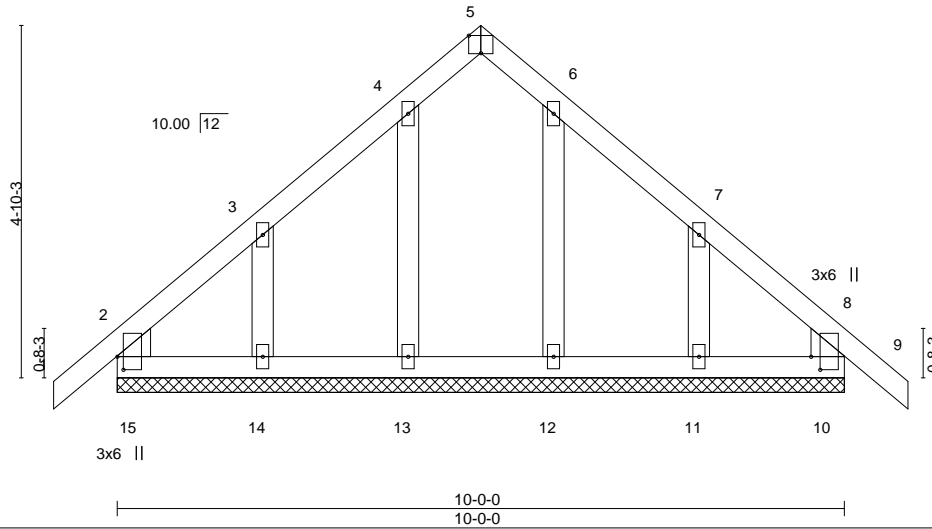


Plate Offsets (X, Y)--	[2:0-2-5,0-2-12], [5:0-2-0,Edge], [8:0-2-2,0-1-8], [8:0-2-5,0-2-12], [10:0-0-0,0-2-12], [15:0-2-2,0-1-0], [15:0-0-0,0-2-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.17	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) -0.00 9 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Vert(CT) -0.00 9 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 10 n/a n/a		
	Code IRC2015/TPI2014			Weight: 56 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.2	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 10-0-0.  
 (lb) - Max Horz 15=121(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 15, 12 except 10=125(LC 12), 14=111(LC 12), 11=127(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 10, 15, 14, 13, 12, 11

**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=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; 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 5-0-0, Corner(3) 5-0-0 to 8-0-0, Exterior(2) 8-0-0 to 10-10-8 zone; 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 requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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) 15, 12 except (jt=lb) 10=125, 14=111, 11=127.



July 16, 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 21438A	Truss BG	Truss Type GABLE	Qty 1	Ply 3	240.2596.D.10x10CVP	137798243
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:27:55 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-EP8KGNgT4HQwGEACP7KYPBiEauGweCEVnG\_E\_HyxIU1



Scale = 1:57.4

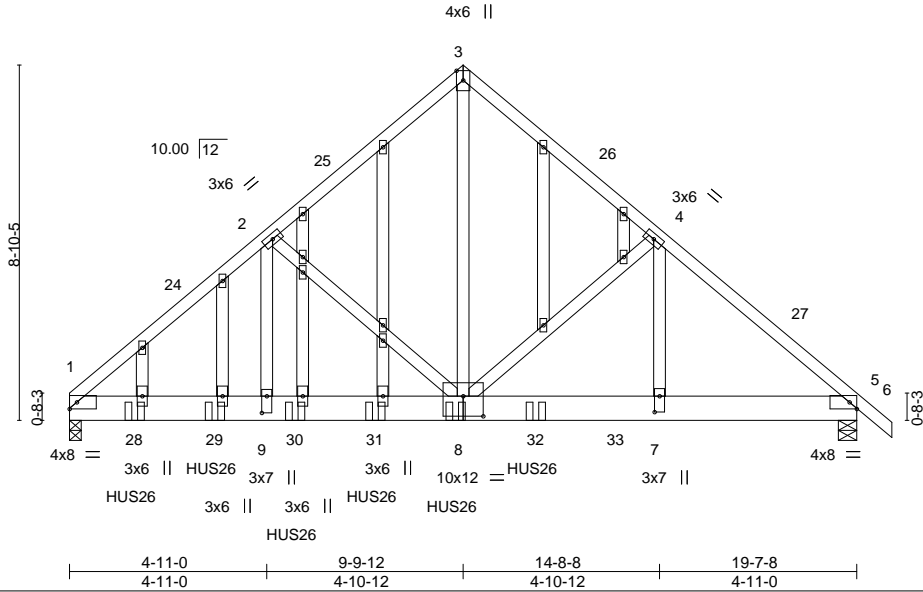


Plate Offsets (X,Y)--	[7:0-4-12,0-1-8], [8:0-6-0,0-6-0], [9:0-5-0,0-1-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.50	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.88	Vert(LL) -0.08 7-8 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.62	Vert(CT) -0.16 7-8 >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) -0.03 1 n/a n/a		
	Code IRC2015/TPI2014			Weight: 520 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x8 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	
OTHERS 3-8: 2x4 SP No.2	
2x4 SP No.3	

**REACTIONS.** (lb/size) 1=7357/0-3-8, 5=5947/0-5-8  
 Max Horz 5=-216(LC 31)  
 Max Uplift 1=-1181(LC 12), 5=-1399(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-9067/1546, 2-3=-6288/1333, 3-4=-6283/1326, 4-5=-8774/2145  
 BOT CHORD 1-9=-1075/6700, 8-9=-1075/6700, 7-8=-1608/6399, 5-7=-1608/6399  
 WEBS 2-9=-308/3442, 2-8=-2593/415, 3-8=-1579/7627, 4-8=-2194/988, 4-7=-1120/3057

- NOTES-**
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 4 rows staggered at 0-5-0 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=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-9-12, Exterior(2) 9-9-12 to 12-9-12, Interior(1) 12-9-12 to 20-6-0 zone; 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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) 1=1181, 5=1399.
  - Use USP HUS26 (With 16d nails into Girder & 16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-7-8 from the left end to 11-7-8 to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 3183 lb down and 1381 lb up at joint(s) on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job 21438A	Truss BG	Truss Type GABLE	Qty 1	Ply <b>3</b>	240.2596.D.10x10CVP Job Reference (optional)	I37798243
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:27:55 2019 Page 2  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-EP8KGNgT4HQwGEACP7kYPBiEauGweCEVnG\_E\_HyxIUl

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-6=-60, 1-5=-20

Concentrated Loads (lb)

Vert: 8=-1419(B) 28=-1419(B) 29=-1419(B) 30=-1419(B) 31=-1419(B) 32=-1419(B) 33=-3183(B)

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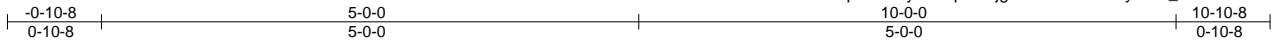


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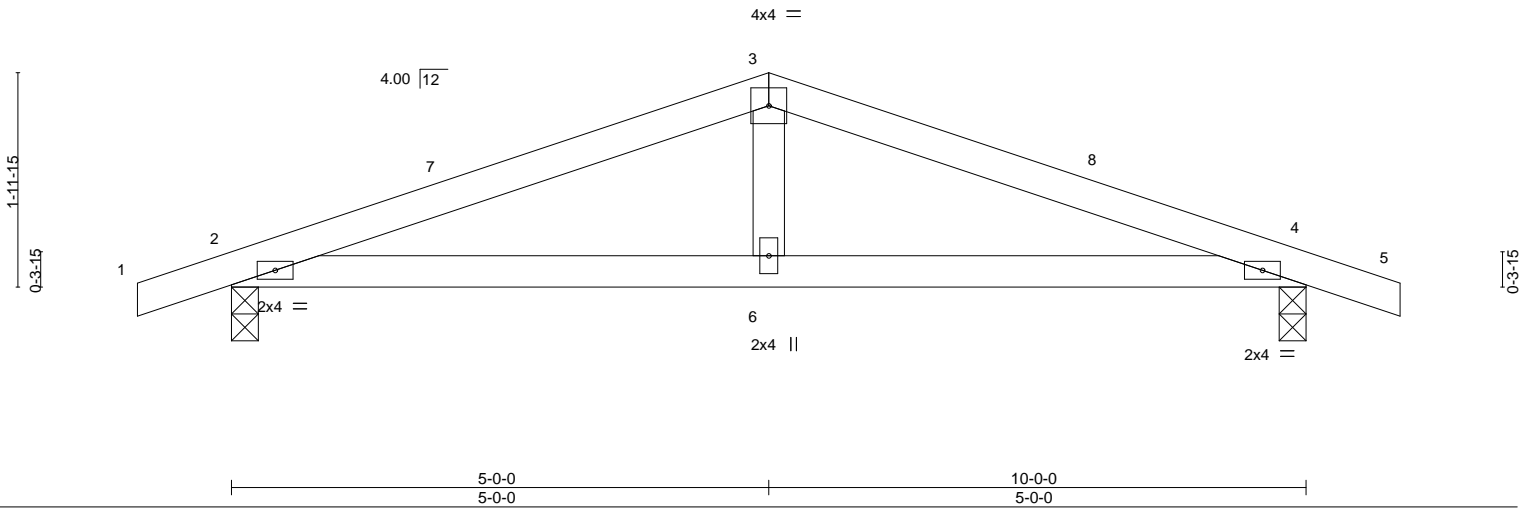
Job 21438A	Truss C1	Truss Type COMMON	Qty 4	Ply 1	240.2596.D.10x10CVP	137798244
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:27:56 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-ibiiUjg5raYnuNIOzrFnyOFR\_HIDNnsf?wkoWkyxLUH



Scale = 1:21.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	0.04	4-6	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.04	4-6	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 36 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 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 8-0-10 oc bracing.

**REACTIONS.** (lb/size) 2=450/0-3-0, 4=450/0-3-0  
 Max Horz 2=-33(LC 13)  
 Max Uplift 2=-185(LC 8), 4=-185(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-705/598, 3-4=-705/594  
 BOT CHORD 2-6=-506/622, 4-6=-506/622

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; 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 5-0-0, Exterior(2) 5-0-0 to 8-0-0, Interior(1) 8-0-0 to 10-10-8 zone; porch 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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=185, 4=185.



July 16, 2019

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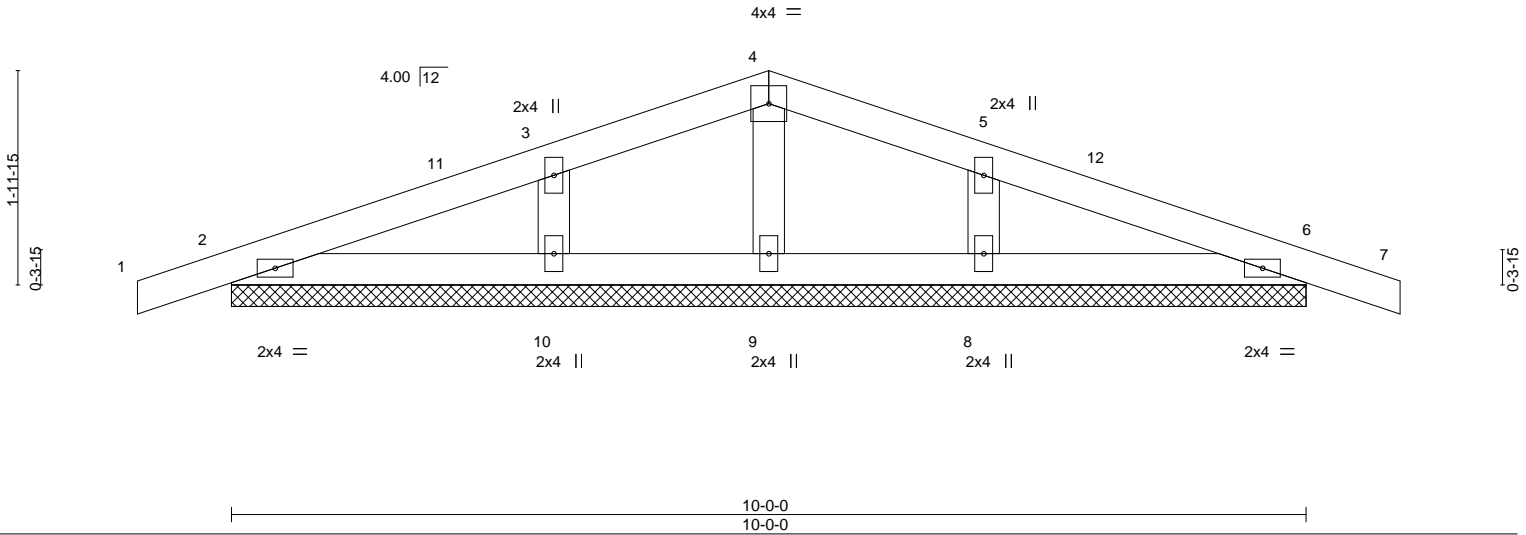
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job 21438A	Truss CE	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	240.2596.D.10x10CVP	137798245
84 Components (Dunn), Dunn, NC - 28334,					Job Reference (optional)	

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:27:56 2019 Page 1  
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Scale = 1:21.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	0.00	7	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	7	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 38 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 10-0-0.  
 (lb) - Max Horz 2=-33(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8  
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

**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=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; 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 5-0-0, Corner(3) 5-0-0 to 8-0-0, Exterior(2) 8-0-0 to 10-10-8 zone; porch 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 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 10, 8.
- 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



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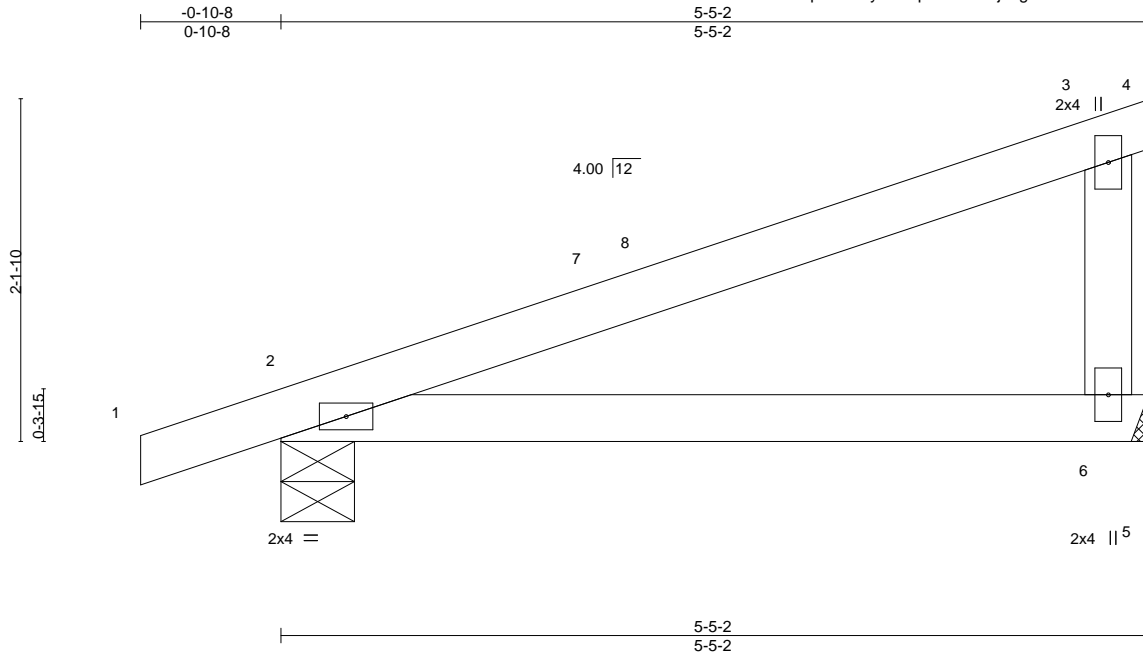


818 Soundside Road  
 Edenton, NC 27932

Job 21438A	Truss D1	Truss Type Monopitch	Qty 10	Ply 1	240.2596.D.10x10CVP	137798246
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:27:57 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-BoG5h2hjcugeVXKaXYm0Ucob9h5Q6FToEaTL2AyxIUG



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.04 2-6	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.07 2-6	>841	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					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 or 5-5-2 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 6=201/Mechanical, 2=271/0-5-8  
 Max Horz 2=84(LC 8)  
 Max Uplift 6=-49(LC 12), 2=-72(LC 8)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 5-5-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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) 6, 2.



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818 Soundside Road  
 Edenton, NC 27932

Job 21438A	Truss D1E	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	240.2596.D.10x10CVP	137798247
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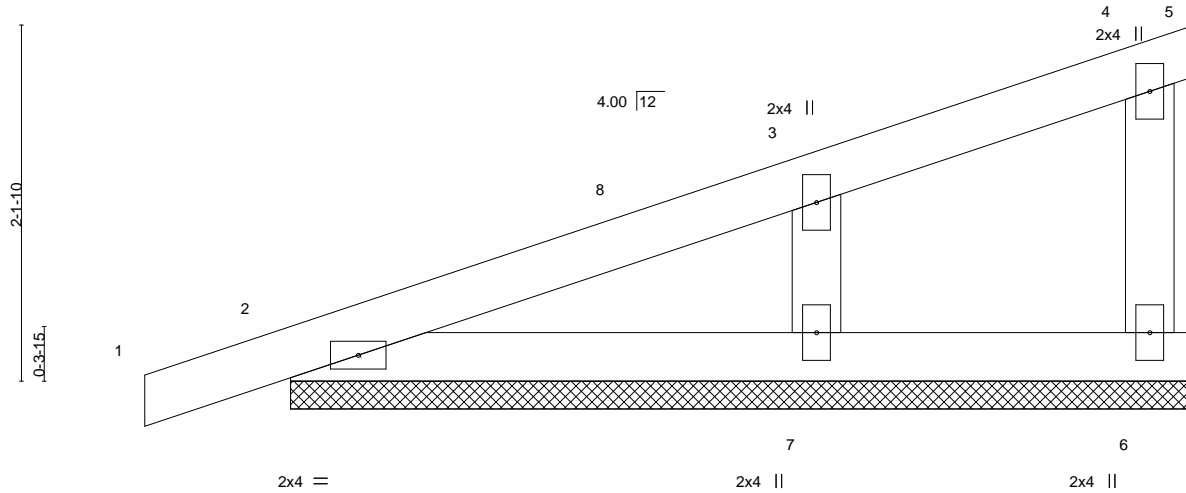
84 Components (Dunn),

Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:27:58 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-f\_pTvOILNCoV7hvn4GIF1pKru5U9risyTEDuacyxIUf



Scale = 1:13.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 22 lb	FT = 20%

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

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

**REACTIONS.** All bearings 5-5-2.  
(lb) - Max Horz 2=85(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 5, 6, 2, 7  
Max Grav All reactions 250 lb or less at joint(s) 5, 6, 2 except 7=254(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 5-5-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6, 2, 7.



July 16, 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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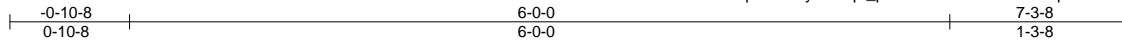


Job 21438A	Truss D2	Truss Type Half Hip	Qty 5	Ply 1	240.2596.D.10x10CVP	137798248
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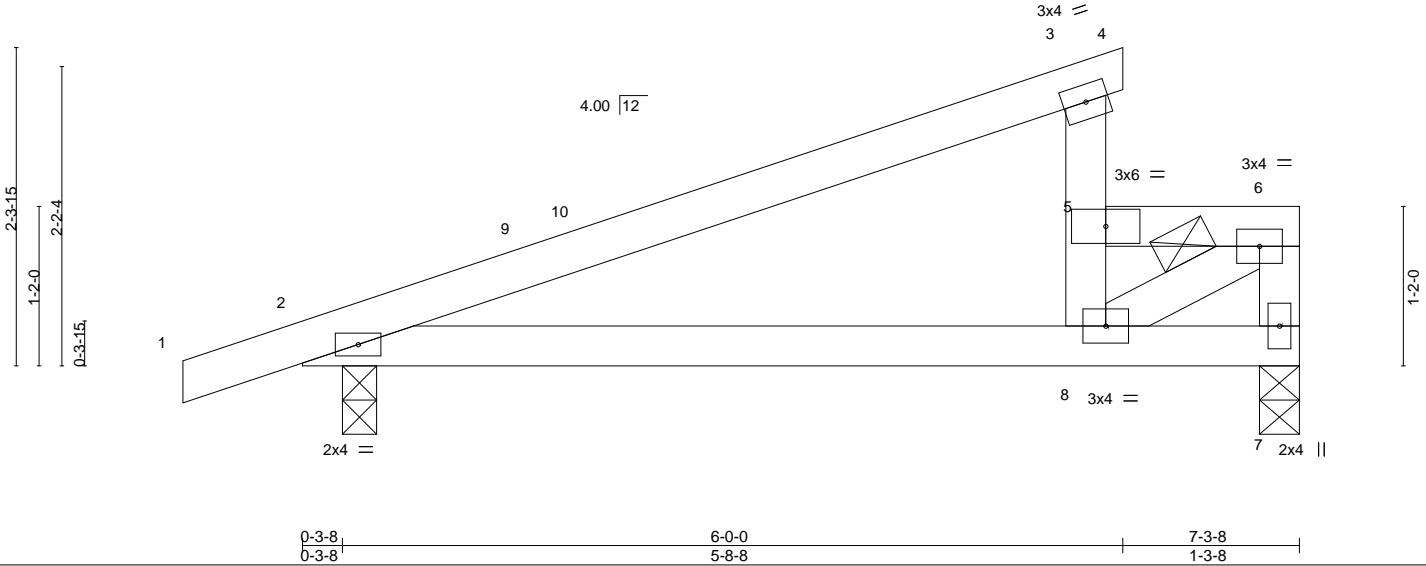
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:27:58 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-f\_pTvOiLNCov7hvn4GIF1pKeB5QVrfuyTEDuacyxIUf



Scale = 1:16.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.92	Vert(LL)	-0.03	2-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.08	2-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.25	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 29 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-8, 5-6.
BOT CHORD 2x4 SP No.2	6-0-0 oc bracing: 3-5
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 7=433/0-3-8, 2=384/0-3-0  
 Max Horz 2=134(LC 12)  
 Max Uplift 7=-82(LC 12), 2=-91(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-457/93, 5-6=-545/236, 6-7=-429/185  
 BOT CHORD 2-8=-182/388  
 WEBS 6-8=-252/592

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 7-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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) 2.
  - 7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
  - 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). 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=-20, 5-6=-60, 2-7=-20

Concentrated Loads (lb)  
 Vert: 5=-190(F)



July 16, 2019

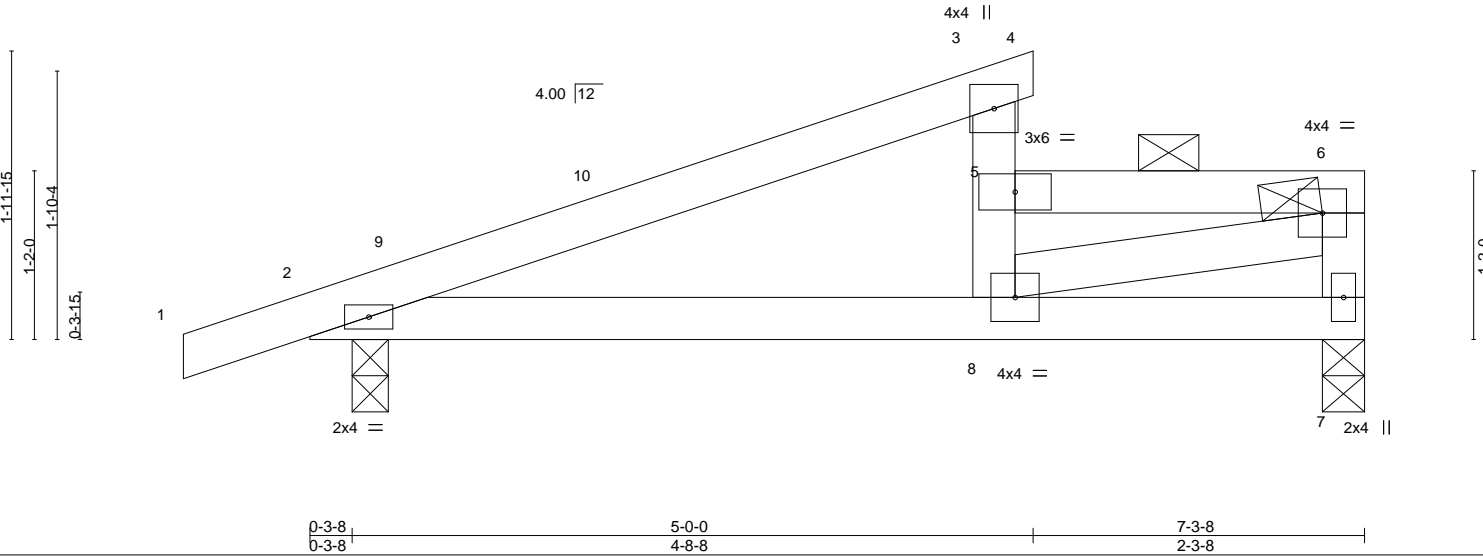
Job	Truss	Truss Type	Qty	Ply	240.2596.D.10x10CVP	137798249
21438A	D3	Half Hip	4	1		

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:27:59 2019 Page 1  
 ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-7ANr6kiz8VwMlrUzezpUZ1ttBVmRa4n5huyS73yxIUe



Scale: 3/4"=1'



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	0.03	2-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.05	2-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.33	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 30 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-8, 5-6.
BOT CHORD 2x4 SP No.2	Except:
WEBS 2x4 SP No.3 *Except*	10-0-0 oc bracing: 3-5
3-8: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 7=421/0-3-8, 2=421/0-3-0  
 Max Horz 2=106(LC 12)  
 Max Uplift 7=68(LC 9), 2=-96(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-642/203, 5-6=-825/366, 6-7=-386/188  
 BOT CHORD 2-8=-266/572  
 WEBS 6-8=-354/804

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; 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 7-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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) 2.
  - 7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
  - 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) . 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=-20, 5-6=-60, 2-7=-20  
 Concentrated Loads (lb)  
 Vert: 5=-215(F)



July 16, 2019

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	240.2596.D.10x10CVP	137798250
21438A	D3A	Half Hip	1	1		

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:00 2019 Page 1

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Scale: 3/4"=1'

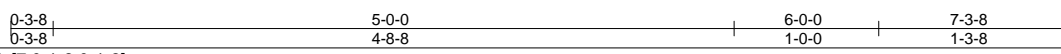
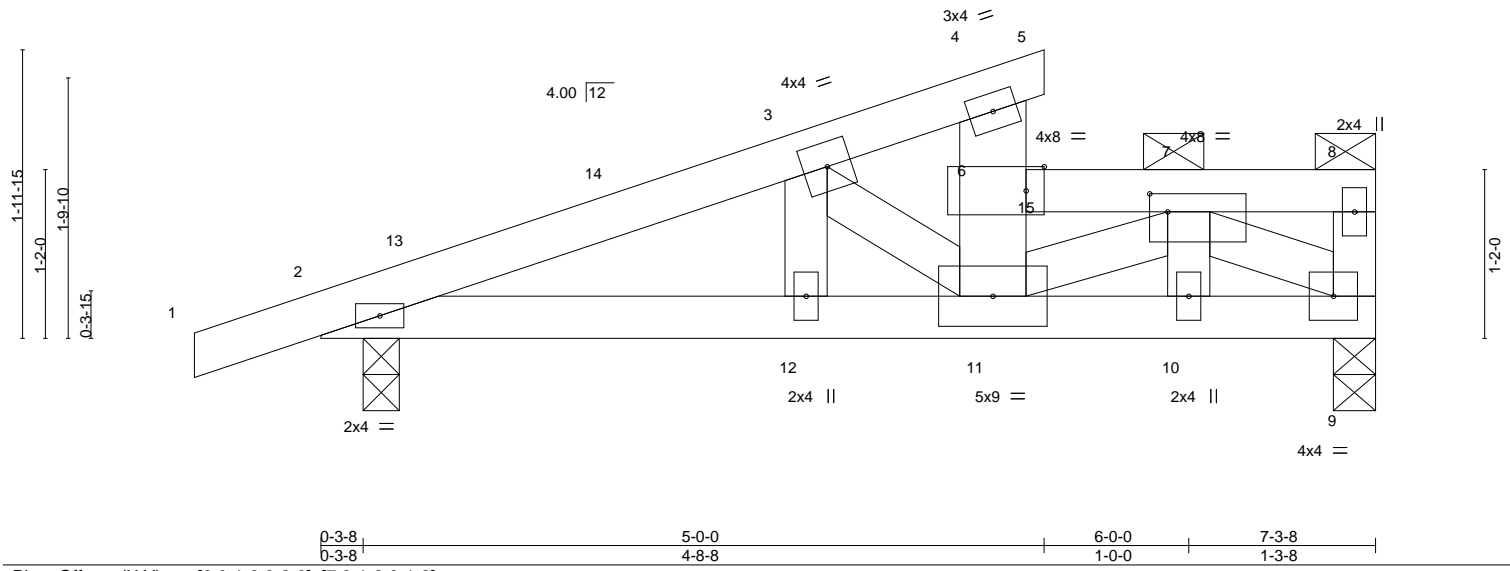


Plate Offsets (X,Y)-- [6:0-1-8,0-2-0], [7:0-1-8,0-1-8]

<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 0.73	Vert(LL)	0.04 11-12	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.05 11-12	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.40	Horz(CT)	0.02 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 35 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-4 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-13 max.): 4-11, 6-8.
BOT CHORD 2x4 SP No.2	Exception:
WEBS 2x4 SP No.3 *Except*	10-0-0 oc bracing: 4-6
4-11: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 7-0-4 oc bracing.

<b>REACTIONS.</b> (lb/size)	9=1459/0-3-8, 2=627/0-3-0
Max Horz	2=105(LC 12)
Max Uplift	9=-264(LC 9), 2=-134(LC 8)
Max Grav	9=1522(LC 19), 2=627(LC 1)

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1302/469, 3-4=-1138/443, 6-7=-1910/809
BOT CHORD 2-12=-525/1191, 11-12=-525/1191, 10-11=-702/1773, 9-10=-702/1773
WEBS 7-9=-2101/834

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; 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 7-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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 (it=lb) 2=134.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

<b>LOAD CASE(S)</b> Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-5=-60, 6-15=-20, 8-15=-60, 2-9=-20
Concentrated Loads (lb)
Vert: 6=-215(F) 7=-1242(F)



July 16, 2019

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	240.2596.D.10x10CVP	137798251
21438A	D3E	Half Hip Supported	1	1		

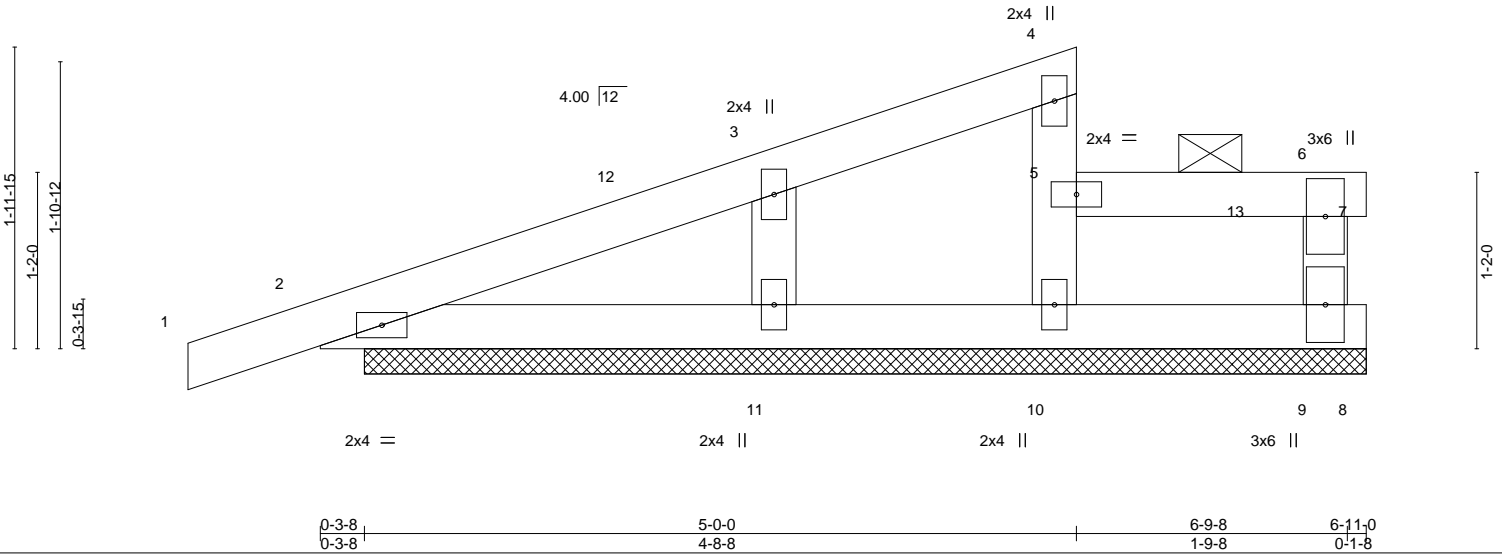
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:01 2019 Page 1

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Scale = 1:15.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.14	Horz(CT)	-0.00	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 27 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 5-10, 5-7.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 6-7-8.  
 (lb) - Max Horz 2=106(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 10, 2, 8, 11 except 7=254(LC 19), 9=108(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 7, 2, 11 except 10=268(LC 1), 9=605(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 6-9=561/454

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; 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 6-11-0 zone; 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.
  - Provide adequate drainage to prevent water ponding.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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) 10, 2, 8, 11 except (jt=lb) 7=254, 9=108.
  - Non Standard bearing condition. Review required.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.
  - 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: 1-4=-60, 5-7=-60, 2-8=-20  
 Concentrated Loads (lb)  
 Vert: 5=-125(F) 13=-263(F)



July 16, 2019

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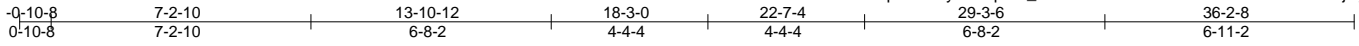
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job 21438A	Truss H1	Truss Type Hip	Qty 1	Ply 1	240.2596.D.10x10CVP	137798252
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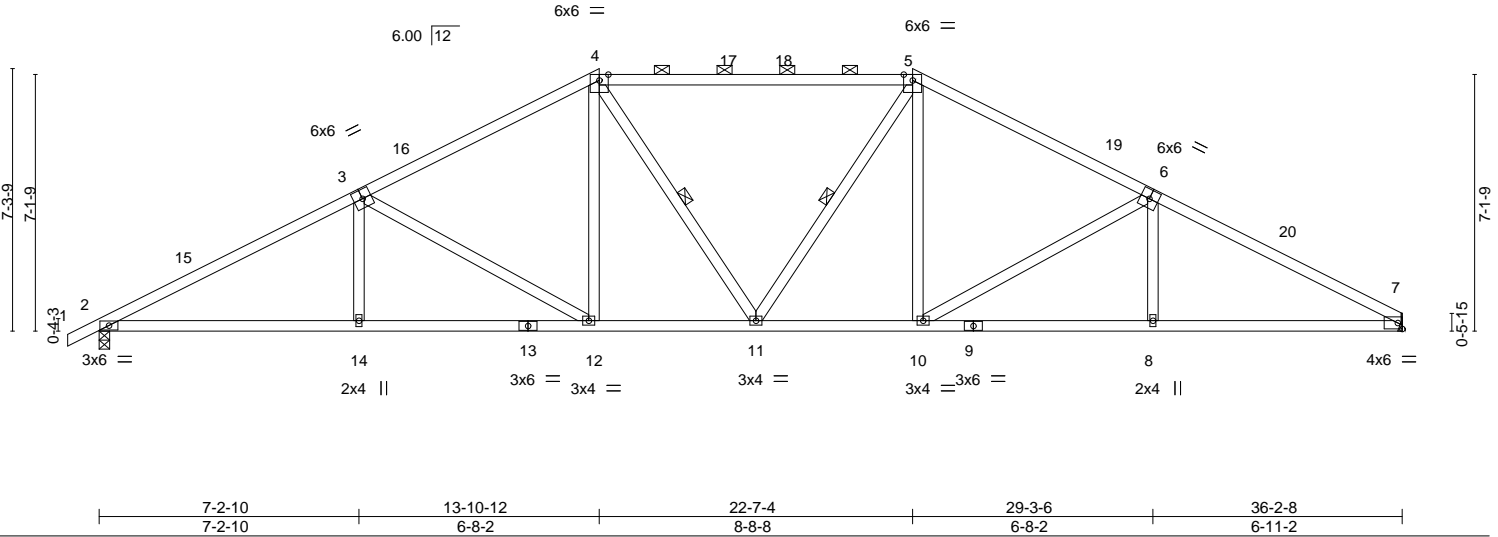
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:02 2019 Page 1

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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 0.97	Vert(LL) -0.14 11 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT) -0.28 12-14 >999 180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65	Horz(CT) 0.13 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S		Weight: 189 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 4-5: 2x4 SP DSS, 6-7: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 4-5.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-11, 5-11

**REACTIONS.** (lb/size) 2=1502/0-3-8, 7=1439/Mechanical  
 Max Horz 2=129(LC 12)  
 Max Uplift 2=160(LC 12), 7=135(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2712/390, 3-4=-2105/382, 4-5=-1821/366, 5-6=-2095/376, 6-7=-2651/380  
 BOT CHORD 2-14=-286/2334, 12-14=-287/2332, 11-12=-159/1799, 10-11=-147/1790, 8-10=-271/2285,  
 7-8=-270/2286  
 WEBS 3-14=0/306, 3-12=-608/213, 4-12=-36/441, 5-10=-36/425, 6-10=-567/211, 6-8=0/302

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-8-15, Interior(1) 2-8-15 to 13-10-12, Exterior(2) 13-10-12 to 19-0-3, Interior(1) 19-0-3 to 22-7-4, Exterior(2) 22-7-4 to 27-8-11, Interior(1) 27-8-11 to 36-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=160, 7=135.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 2019

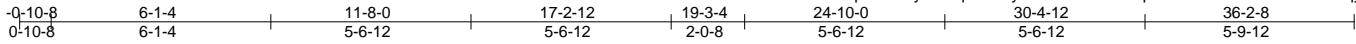
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss 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/TP1 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</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 21438A	Truss H2	Truss Type Hip	Qty 1	Ply 1	240.2596.D.10x10CVP	137798253
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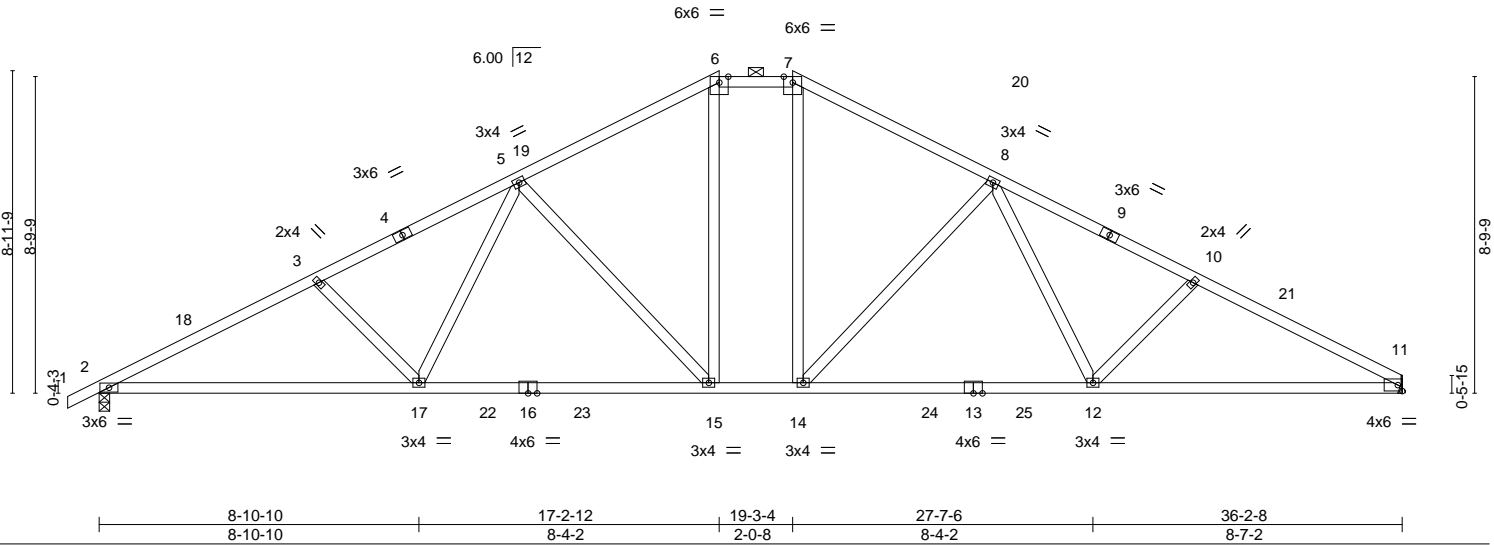
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:03 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-?xdMy6mUCkRnDSnktptQkt2Xm6zAWnThcWwfGqyxiUA



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 0.74	Vert(LL) -0.28 15-17 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.98	Vert(CT) -0.49 15-17 >886 180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.80	Horz(CT) 0.12 11 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S			Weight: 193 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins (4-7-13 max.): 6-7.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

**REACTIONS.** (lb/size) 2=1502/0-3-8, 11=1439/Mechanical  
 Max Horz 2=156(LC 16)  
 Max Uplift 2=-185(LC 12), 11=-162(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2700/351, 3-5=-2467/343, 5-6=-1781/344, 6-7=-1519/339, 7-8=-1780/348,  
 8-10=-2430/355, 10-11=-2648/368  
 BOT CHORD 2-17=-358/2349, 15-17=-205/1940, 14-15=-55/1519, 12-14=-162/1923, 11-12=-252/2288  
 WEBS 3-17=-306/193, 5-17=-46/505, 5-15=-649/240, 6-15=-60/571, 7-14=-61/563,  
 8-14=-628/238, 8-12=-44/474, 10-12=-269/191

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-8-15, Interior(1) 2-8-15 to 17-2-12, Exterior(2) 17-2-12 to 24-4-11, Interior(1) 24-4-11 to 36-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=185, 11=162.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 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/TP1 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

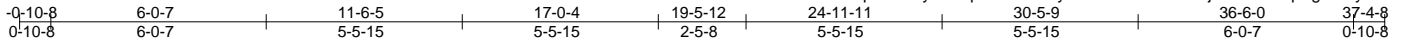
818 Soundside Road  
 Edenton, NC 27932

Job 21438A	Truss H4	Truss Type Hip	Qty 1	Ply 1	240.2596.D.10x10CVP	137798254
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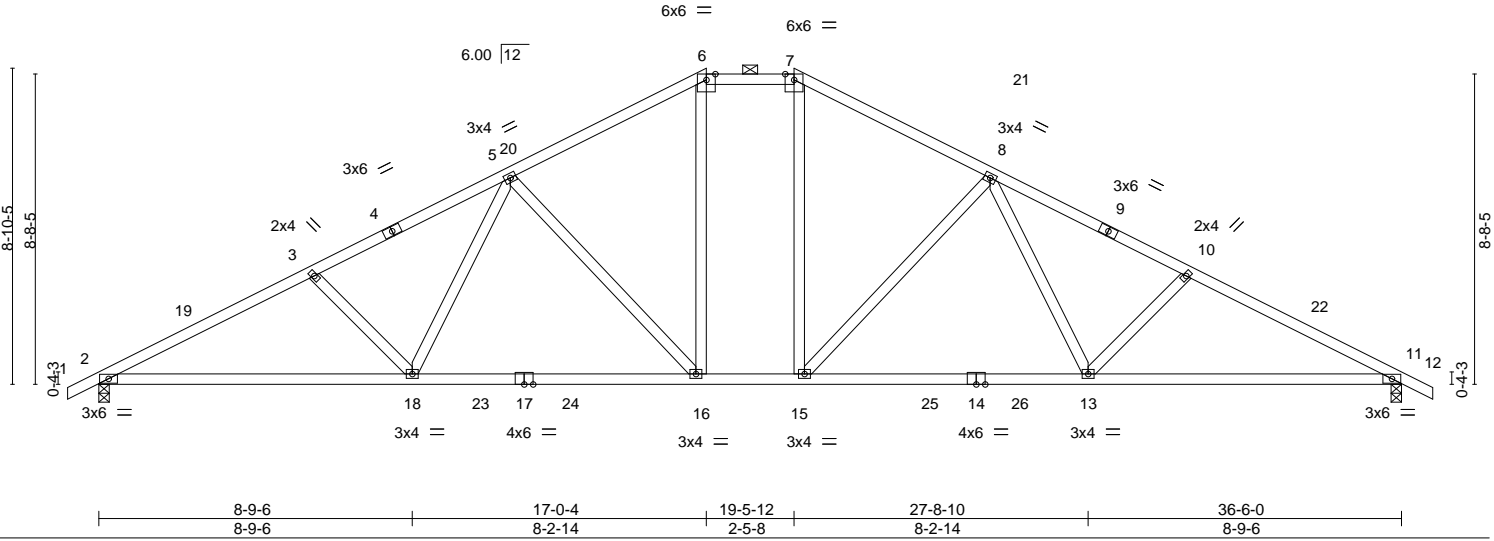
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:04 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-T8Bk9Sn6y2ZercMxRWOfG4aj0WJdFE6qrAgDoGyxIU9



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 0.64	Vert(LL)	-0.30 13-15	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.51 13-15	>857	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.77	Horz(CT)	0.13 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 195 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 2-7-14 oc purlins, except  
2-0-0 oc purlins (4-7-10 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

**REACTIONS.** (lb/size) 2=1510/0-3-8, 11=1510/0-3-8  
Max Horz 2=-148(LC 17)  
Max Uplift 2=-184(LC 12), 11=-184(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2719/356, 3-5=-2490/346, 5-6=-1815/350, 6-7=-1551/340, 7-8=-1815/350,  
8-10=-2490/346, 10-11=-2719/356  
BOT CHORD 2-18=-348/2366, 16-18=-197/1965, 15-16=-42/1551, 13-15=-162/1965, 11-13=-243/2366  
WEBS 3-18=-301/190, 5-18=-46/498, 5-16=-645/240, 6-16=-56/576, 7-15=-56/576,  
8-15=-645/240, 8-13=-47/498, 10-13=-301/190

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-9-5, Interior(1) 2-9-5 to 17-0-4, Exterior(2) 17-0-4 to 24-7-11, Interior(1) 24-7-11 to 37-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=184.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 2019

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job 21438A	Truss H5	Truss Type Hip	Qty 1	Ply 1	240.2596.D.10x10CVP	137798255
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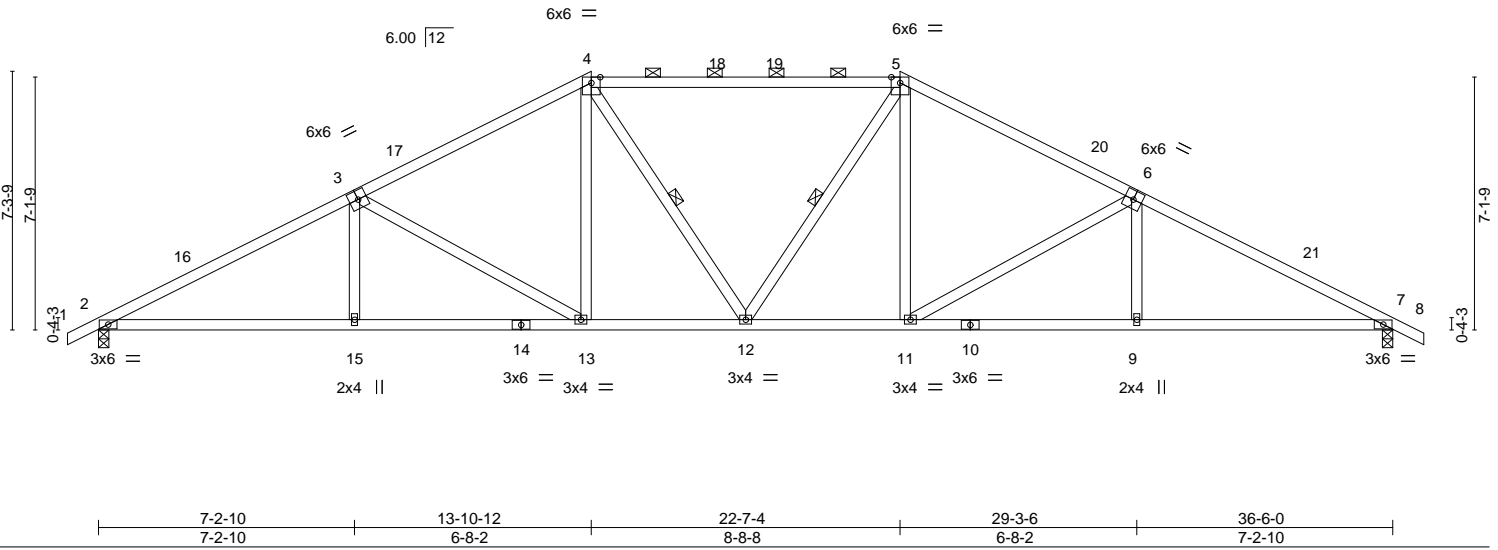
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:05 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-yKI6NnnkJLhVTmx7?Ewupl7pTwhZ\_jL\_4qPmKiyxIU8

-0-10-8	7-2-10	13-10-12	18-3-0	22-7-4	29-3-6	36-6-0	37-4-8
0-10-8	7-2-10	6-8-2	4-4-4	4-4-4	6-8-2	7-2-10	0-10-8

Scale = 1:65.0



<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 0.98	Vert(LL)	-0.14	12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.29	9-11	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65	Horz(CT)	0.13	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 191 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2 \*Except\*  
4-5: 2x4 SP DSS  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (2-2-0 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 4-12, 5-12

**REACTIONS.** (lb/size) 2=1510/0-3-8, 7=1510/0-3-8  
Max Horz 2=-122(LC 17)  
Max Uplift 2=-160(LC 12), 7=-160(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2728/388, 3-4=-2122/380, 4-5=-1840/363, 5-6=-2122/380, 6-7=-2728/388  
BOT CHORD 2-15=-264/2348, 13-15=-265/2346, 12-13=-137/1814, 11-12=-140/1814, 9-11=-268/2346,  
7-9=-267/2348  
WEBS 3-15=0/306, 3-13=-607/213, 4-13=-36/441, 5-11=-36/441, 6-11=-607/214, 6-9=0/306

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-9-5, Interior(1) 2-9-5 to 13-10-12, Exterior(2) 13-10-12 to 19-0-11, Interior(1) 19-0-11 to 22-7-4, Exterior(2) 22-7-4 to 27-9-3, Interior(1) 27-9-3 to 37-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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=160.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 2019

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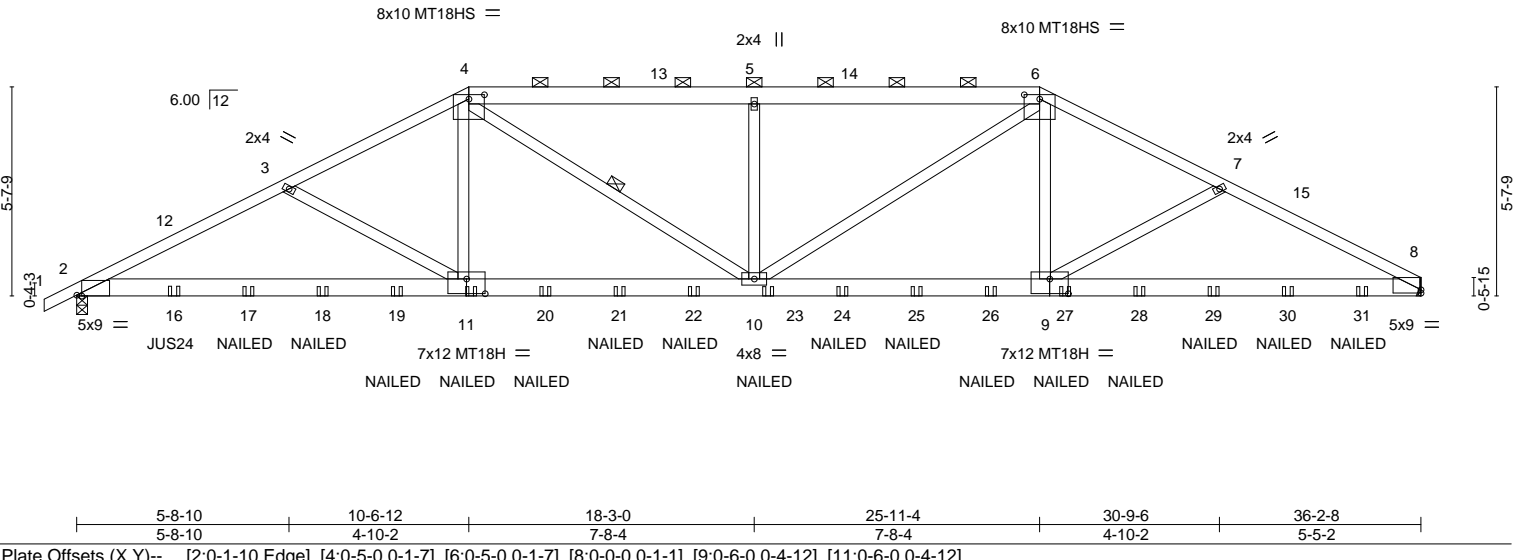
Job 21438A	Truss HG1	Truss Type Hip Girder	Qty 1	Ply 1	240.2596.D.10x10CVP	137798256
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:07 2019 Page 1  
 ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-ujstnTp\_FzxDI45V6fyMujCChjLySZRGX8utPbyxIU6



Scale = 1:62.1



<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 0.81	Vert(LL)	0.45	8-9	>953	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.63	2-11	>688	MT18H	244/190
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.93	Horz(CT)	0.14	8	n/a	MT18HS	244/190
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 221 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP DSS *Except* 4-6: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-3-6 oc purlins, except 2-0-0 oc purlins (2-5-12 max.): 4-6.
BOT CHORD 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 5-2-14 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-10

**REACTIONS.** (lb/size) 8=3203/Mechanical, 2=3192/0-3-8  
 Max Horz 2=103(LC 39)  
 Max Uplift 8=-1361(LC 13), 2=-1087(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-5829/2410, 3-4=-5499/2338, 4-5=-5780/2685, 5-6=-5780/2685, 6-7=-5466/2546, 7-8=-5715/2598  
 BOT CHORD 2-11=-2107/5173, 10-11=-1948/4848, 9-10=-2095/4766, 8-9=-2257/5027  
 WEBS 3-11=-354/232, 4-11=-528/1459, 4-10=-765/1238, 5-10=-570/254, 6-10=-570/1333, 6-9=-738/1414, 7-9=-280/270

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-8-15, Interior(1) 2-8-15 to 10-6-12, Exterior(2) 10-6-12 to 15-8-3, Interior(1) 15-8-3 to 25-11-4, Exterior(2) 25-11-4 to 30-11-4, Interior(1) 30-11-4 to 36-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=1361, 2=1087.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Use USP JUS24 (With 10d nails into Girder & 10d nails into Truss) or equivalent at 2-7-8 from the left end to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 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



July 16, 2019

Continued on page 2

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

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**TRENCO**  
 ENGINEERING BY  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job 21438A	Truss HG1	Truss Type Hip Girder	Qty 1	Ply 1	240.2596.D.10x10CVP Job Reference (optional)	I37798256
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:07 2019 Page 2  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-ujstnTp\_FzxDi45V6fyMujCChjLySZRGX8utPbyxIU6

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-6=-60, 6-8=-60, 2-8=-20

Concentrated Loads (lb)

Vert: 11=-202(B) 16=-210(B) 17=-206(B) 18=-206(B) 19=-206(B) 20=-202(B) 21=-202(B) 22=-202(B) 23=-202(B) 24=-202(B) 25=-202(B) 26=-202(B) 27=-202(B) 28=-202(B) 29=-202(B) 30=-202(B) 31=-202(B)

**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	240.2596.D.10x10CVP	137798257
21438A	HG2	HIP GIRDER	1	1		

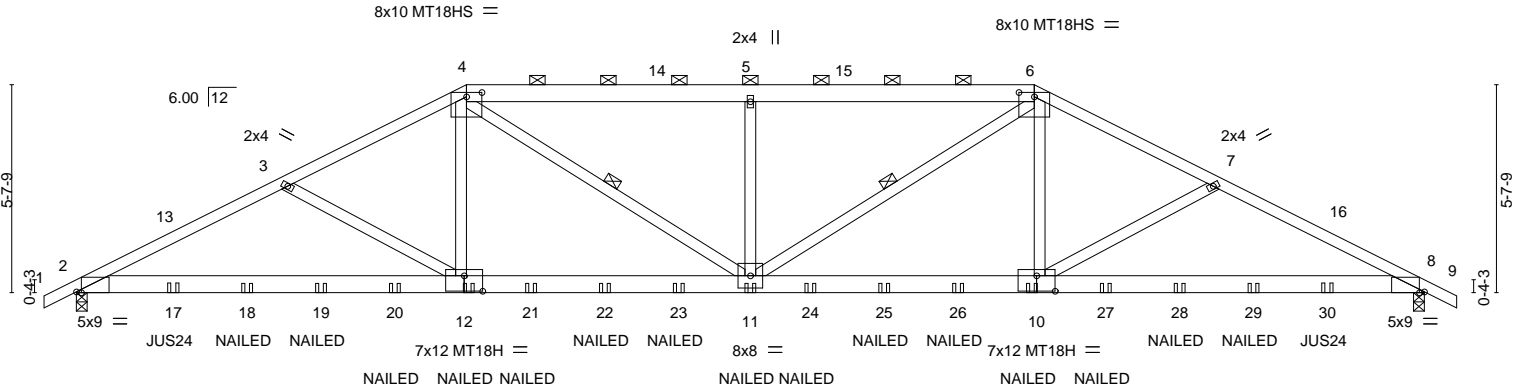
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:09 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-q5\_dC9rFnaBxxNFuE3\_qz8HYsX1MwXoZ?SN\_TTyxIU4

-0-10-8	5-8-10	10-6-12	18-3-0	25-11-4	30-9-6	36-6-0	37-4-8
0-10-8	5-8-10	4-10-2	7-8-4	7-8-4	4-10-2	5-8-10	0-10-8

Scale = 1:62.4



5-8-10	10-6-12	18-3-0	25-11-4	30-9-6	36-6-0
5-8-10	4-10-2	7-8-4	7-8-4	4-10-2	5-8-10

Plate Offsets (X,Y)-- [2:0-1-10,Edge], [4:0-5-0,0-1-7], [6:0-5-0,0-1-7], [8:0-1-10,Edge], [10:0-6-0,0-5-0], [12:0-6-0,0-5-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.83	Vert(LL)	0.38	11-12	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.63	8-10	>686	180	MT18H	244/190
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.62	Horz(CT)	0.14	8	n/a	n/a	MT18HS	244/190
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 223 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP DSS *Except* 4-6: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-3-0 oc purlins, except 2-0-0 oc purlins (2-4-15 max.): 4-6.
BOT CHORD 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 5-11-6 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-11, 6-11

**REACTIONS.** (lb/size) 2=3253/0-3-8, 8=3242/0-3-8  
 Max Horz 2=-95(LC 36)  
 Max Uplift 2=-1076(LC 12), 8=-1068(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-5966/2383, 3-4=-5637/2310, 4-5=-5945/2625, 5-6=-5945/2625, 6-7=-5613/2292, 7-8=-5942/2365  
 BOT CHORD 2-12=-2058/5295, 11-12=-1898/4972, 10-11=-1889/4951, 8-10=-2048/5274  
 WEBS 3-12=-351/232, 4-12=-539/1492, 4-11=-726/1287, 5-11=-572/252, 6-11=-746/1313, 6-10=-520/1467, 7-10=-352/231

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-9-5, Interior(1) 2-9-5 to 10-6-12, Exterior(2) 10-6-12 to 15-8-11, Interior(1) 15-8-11 to 25-11-4, Exterior(2) 25-11-4 to 30-11-4, Interior(1) 30-11-4 to 37-4-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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=1076, 8=1068.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Use USP JUS24 (With 10d nails into Girder & 10d nails into Truss) or equivalent spaced at 31-3-0 oc max. starting at 2-7-8 from the left end to 33-10-8 to connect truss(es) to front face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 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



July 16, 2019

Continued on page 2

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

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**TRENCO**  
 ENGINEERING BY  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job 21438A	Truss HG2	Truss Type HIP GIRDER	Qty 1	Ply 1	240.2596.D.10x10CVP  Job Reference (optional)	I37798257
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:09 2019 Page 2  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-q5\_dC9rFnaBxxNFuE3\_qz8HYsX1MwXoZ?SN\_TTyxIU4

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-4=-60, 4-6=-60, 6-9=-60, 2-8=-20

Concentrated Loads (lb)

Vert: 12=-202(F) 11=-202(F) 10=-202(F) 17=-210(F) 18=-206(F) 19=-206(F) 20=-206(F) 21=-202(F) 22=-202(F) 23=-202(F) 24=-202(F) 25=-202(F) 26=-202(F) 27=-206(F) 28=-206(F) 29=-206(F) 30=-210(F)

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

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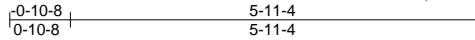
Job 21438A	Truss J1	Truss Type Jack-Open	Qty 22	Ply 1	240.2596.D.10x10CVP	137798258
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:09 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-q5\_dC9rFnaBxxNFuE3\_qz8HccXAXwfpZ?SN\_TTyxIU4

Job Reference (optional)



Scale = 1:33.3

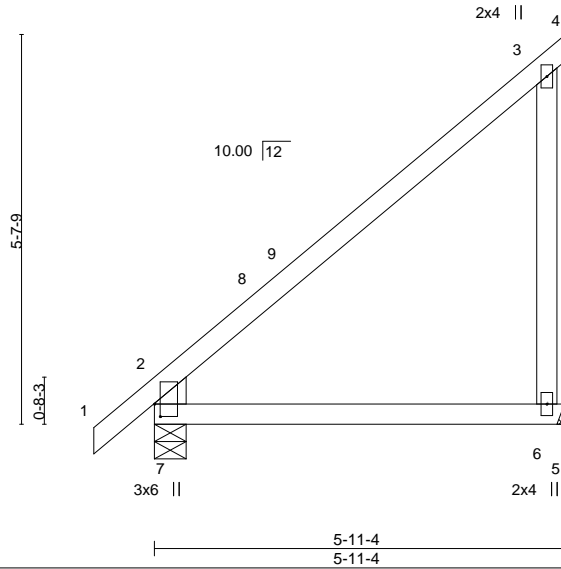


Plate Offsets (X,Y)-- [2:0-2-5,0-2-12], [7:0-2-2,0-1-0], [7:0-0-0,0-2-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.53	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.35	Vert(LL) 0.06 6-7 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.10	Vert(CT) -0.10 6-7 >685 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 n/a n/a		
	Code IRC2015/TPI2014			Weight: 31 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x6 SP No.2 \*Except\*  
 3-6: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 7=290/0-5-8, 6=222/Mechanical  
 Max Horz 7=213(LC 12)  
 Max Uplift 6=138(LC 12)  
 Max Grav 7=290(LC 1), 6=251(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; 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 5-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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) except (jt=lb) 6=138.



July 16, 2019

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818 Soundside Road  
 Edenton, NC 27932

Job 21438A	Truss J2	Truss Type Jack-Open	Qty 3	Ply 1	240.2596.D.10x10CVP	137798259
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:10 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-IY?QVrtYuJoZXq4nnV3WLqpExZDf7wjD67X0wyxIU3

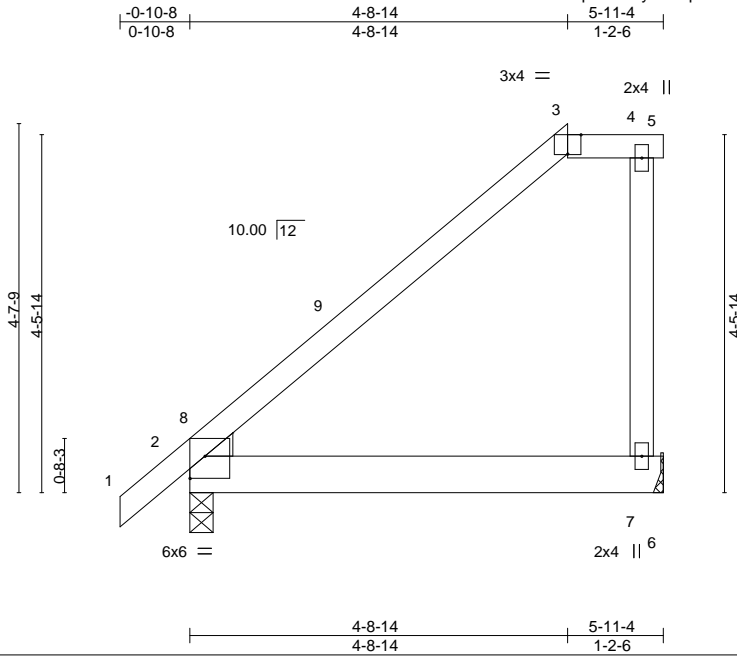


Plate Offsets (X,Y)--	[2:Edge,0-3-5], [2:0-5-1,0-1-14], [2:0-1-2,0-0-15], [3:0-2-0,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	0.02	2-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.03	2-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 33 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins: 3-5.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=287/0-3-8, 7=226/Mechanical  
 Max Horz 2=175(LC 12)  
 Max Uplift 2=-4(LC 12), 7=-81(LC 12)

**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=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; 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 4-8-14, Exterior(2) 4-8-14 to 5-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 2019

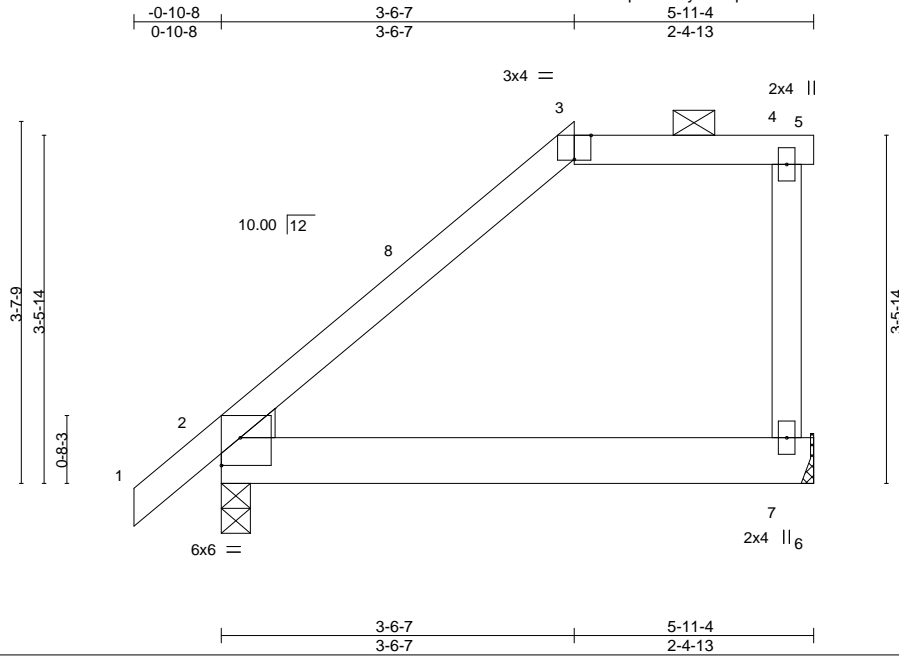
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss 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>818 Soundside Road Edenton, NC 27932</p>
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Job 21438A	Truss J3	Truss Type Jack-Open	Qty 3	Ply 1	240.2596.D.10x10CVP	137798260
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:11 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-mU6NdrsVJBRfBhOHLU0I2ZN\_7KuFOaOsSms4YMyxIU2



Scale = 1:23.1

Plate Offsets (X,Y)--	[2:Edge,0-3-5], [2:0-5-1,0-1-14], [2:0-1-2,0-0-15], [3:0-2-0,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 0.40	Vert(LL) 0.02 2-7 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.03 2-7 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 31 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except 2-0-0 oc purlins: 3-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=287/0-3-8, 7=226/Mechanical  
 Max Horz 2=136(LC 12)  
 Max Uplift 2=-24(LC 12), 7=-44(LC 9)

**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=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; 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 3-6-7, Exterior(2) 3-6-7 to 5-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 2019

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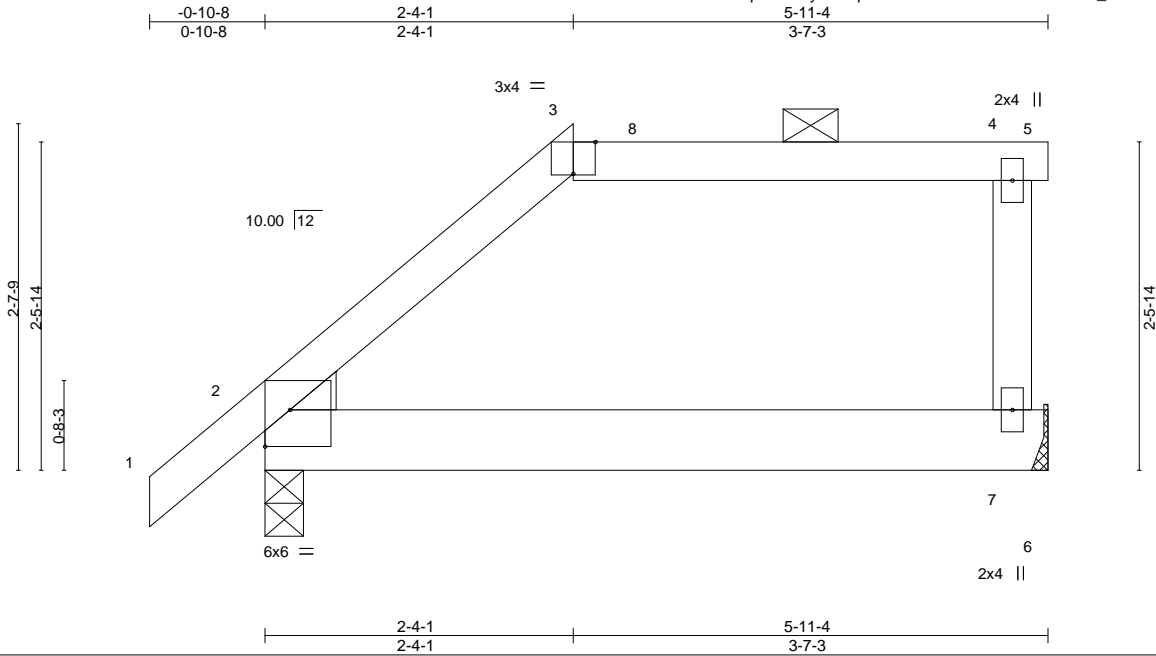
Job 21438A	Truss J4	Truss Type Jack-Open	Qty 3	Ply 1	240.2596.D.10x10CVP	137798261
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84 Components (Dunn),

Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:11 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-mU6NdrsVJBRfBhOHLU012ZN\_PKuKOaOsSms4YMyxiU2



Scale = 1:17.5

Plate Offsets (X,Y)--	[2:Edge,0-3-5], [2:0-5-1,0-1-14], [2:0-1-2,0-0-15], [3:0-2-0,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.01	2-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.03	2-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00		n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 29 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins: 3-5.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=287/0-3-8, 7=226/Mechanical  
 Max Horz 2=98(LC 12)  
 Max Uplift 2=-32(LC 12), 7=-44(LC 9)

**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=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 16, 2019

<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></p> <p>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>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job 21438A	Truss J5	Truss Type Jack-Open Girder	Qty 3	Ply 1	240.2596.D.10x10CVP	137798262
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:12 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-FggmrBt74VZWorzTvCYXbmv8ekET71g0hQce4oyxIU1



Scale = 1:13.0

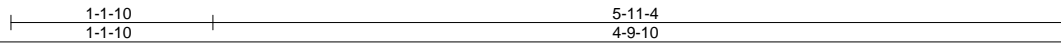
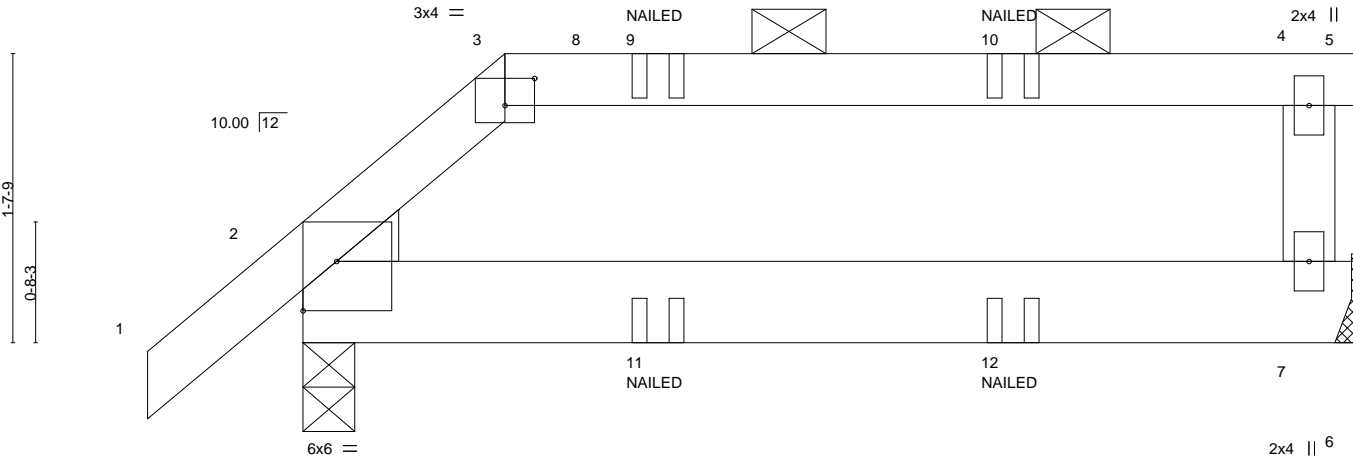


Plate Offsets (X,Y)--	[2:Edge,0-3-5], [2:0-5-1,0-1-14], [2:0-1-2,0-0-15], [3:0-2-0,0-1-13]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	-0.01	2-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.03	2-7	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.03	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 27 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins: 3-5.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=291/0-3-8, 7=230/Mechanical  
 Max Horz 2=64(LC 35)  
 Max Uplift 2=-53(LC 12), 7=-54(LC 9)  
 Max Grav 2=291(LC 1), 7=230(LC 24)

**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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) 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, 4-5=-20, 2-6=-20
- Concentrated Loads (lb)
  - Vert: 11=-4(B) 12=-4(B)

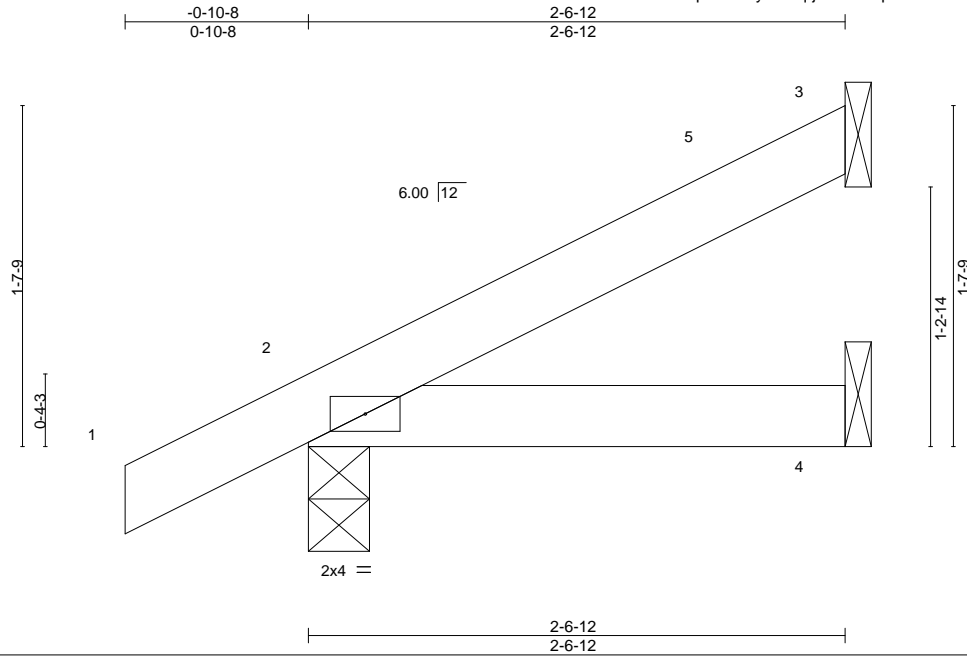


July 16, 2019

Job 21438A	Truss J6	Truss Type Jack-Open	Qty 6	Ply 1	240.2596.D.10x10CVP	137798263
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:13 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-jtD82XulrphMQ?YfTv3m8\_SPk8cwsUQ9v3LBcFyxIU0



<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	2-4	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	2-4	>999	180		
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		Matrix-P						Weight: 10 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=57/Mechanical, 2=169/0-3-8, 4=24/Mechanical  
 Max Horz 2=63(LC 12)  
 Max Uplift 3=-39(LC 12), 2=-31(LC 12)  
 Max Grav 3=57(LC 1), 2=169(LC 1), 4=47(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 2-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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.
  - 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.



July 16, 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 21438A	Truss T1	Truss Type Common	Qty 4	Ply 1	240.2596.D.10x10CVP	137798264
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:14 2019 Page 1

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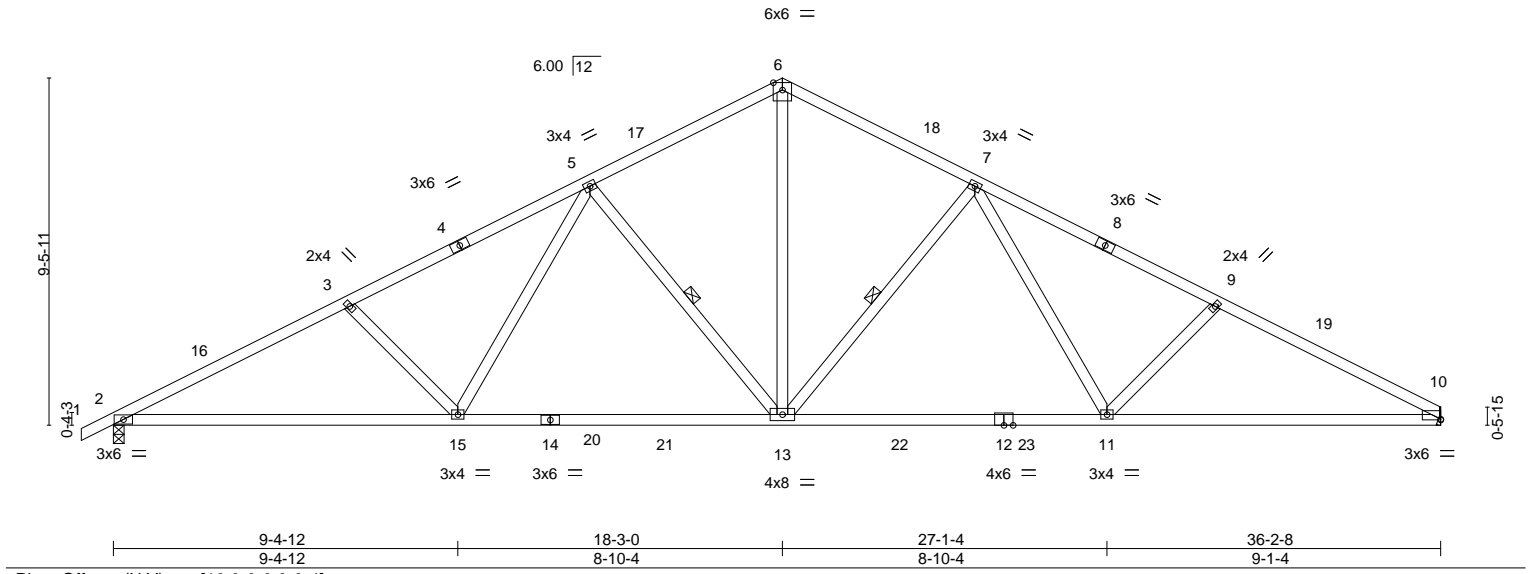


Plate Offsets (X,Y)--	[10:0-0-0,0-0-4]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.74	Vert(LL) -0.24 13-15 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.95	Vert(CT) -0.44 13-15 >988 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.49	Horz(CT) 0.11 10 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			Weight: 187 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SP No.1 *Except* 12-14: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-13, 5-13

**REACTIONS.** (lb/size) 2=1502/0-3-8, 10=1439/Mechanical  
 Max Horz 2=166(LC 12)  
 Max Uplift 2=-192(LC 12), 10=-168(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2689/338, 3-5=-2433/312, 5-6=-1682/306, 6-7=-1682/310, 7-9=-2400/327,  
 9-10=-2642/340  
 BOT CHORD 2-15=-380/2341, 13-15=-197/1838, 11-13=-102/1826, 10-11=-224/2285  
 WEBS 6-13=-148/1191, 7-13=-639/243, 7-11=-54/526, 9-11=-330/224, 5-13=-656/245,  
 5-15=-55/555, 3-15=-364/225

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-8-15, Interior(1) 2-8-15 to 18-3-0, Exterior(2) 18-3-0 to 21-10-7, Interior(1) 21-10-7 to 36-1-12 zone; 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BC DL = 10.0psf.
  - 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) 10=168.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.



July 16, 2019

<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></p> <p>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/TP1 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</p> <p>818 Soundside Road          Edenton, NC 27932</p>
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Job 21438A	Truss T2	Truss Type ROOF TRUSS	Qty 5	Ply 1	240.2596.D.10x10CVP	137798265
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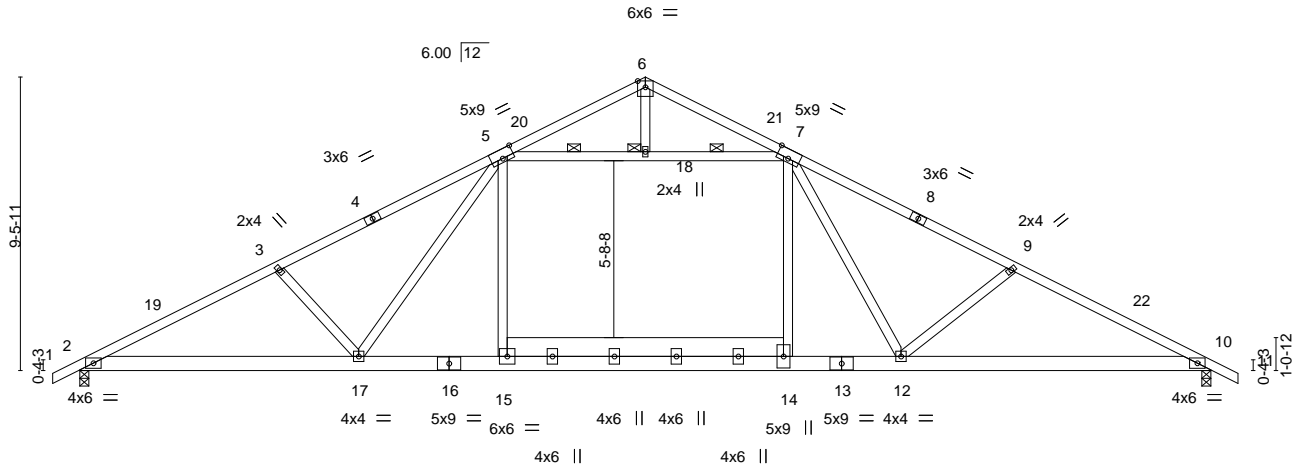
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:15 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-fLuTCv?NQx4fli2aK5EDPXcOy4aKlqSNNqlh7yxIU\_

-0-10-8	6-5-5	13-6-0	18-3-0	23-0-0	30-0-11	36-6-0	37-4-8
0-10-8	6-5-5	7-0-11	4-9-0	4-9-0	7-0-11	6-5-5	0-10-8

Scale = 1:74.4



9-0-0	13-6-0	18-3-0	23-0-0	26-6-0	36-6-0
9-0-0	4-6-0	4-9-0	4-9-0	3-6-0	10-0-0

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

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 0.94	Vert(LL) -0.28 15-17 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.39	Vert(CT) -0.41 15-17 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.08 10 n/a n/a		
	Code IRC2015/TPI2014		Attic -0.20 14-15 543 360	Weight: 247 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-6-9 oc purlins.
BOT CHORD 2x6 SP No.2 *Except* 14-15: 2x8 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 2-2-0 oc bracing: 12-14.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-18, 7-18 JOINTS 1 Brace at Jt(s): 18
	This truss requires both edges of the bottom chord to be sheathed in the room area.

**REACTIONS.** (lb/size) 2=1556/0-3-8, 10=1556/0-3-8  
 Max Horz 2=-160(LC 17)  
 Max Uplift 2=-165(LC 12), 10=-165(LC 13)  
 Max Grav 2=1641(LC 2), 10=1641(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3118/302, 3-5=-2902/284, 5-6=-440/86, 6-7=-440/86, 7-9=-2834/248,  
 9-10=-3108/309  
 BOT CHORD 2-17=-343/2730, 15-17=-66/2269, 14-15=-66/2269, 12-14=-66/2269, 10-12=-190/2723  
 WEBS 7-12=-199/766, 9-12=-429/256, 5-17=-211/761, 3-17=-403/242, 5-18=-1963/236,  
 7-18=-1963/236, 5-15=-158/650, 7-14=-246/679

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-9-5, Interior(1) 2-9-5 to 18-3-0, Exterior(2) 18-3-0 to 21-10-13, Interior(1) 21-10-13 to 37-4-8 zone; 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 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Ceiling dead load (5.0 psf) on member(s). 5-18, 7-18
  - 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-15
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=165.
  - 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - 9) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



July 16, 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.

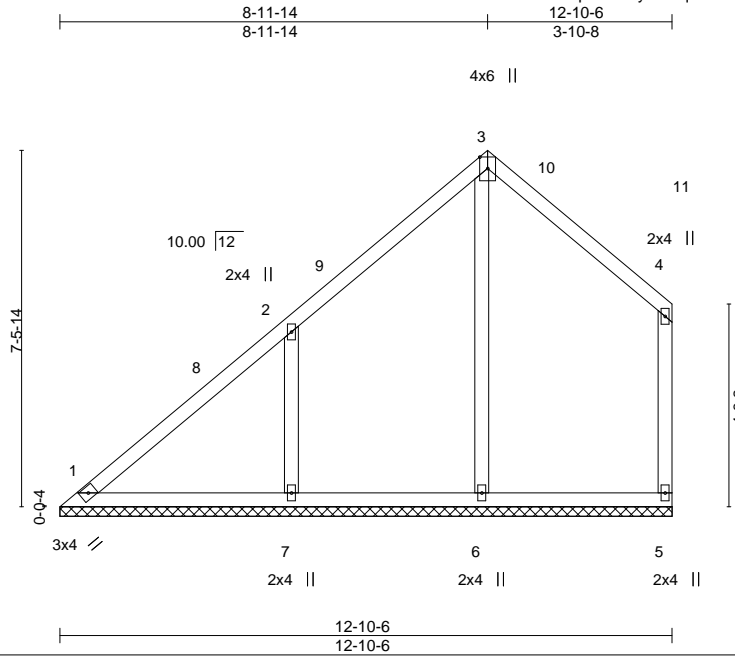


818 Soundside Road  
Edenton, NC 27932

Job 21438A	Truss V1	Truss Type GABLE	Qty 1	Ply 1	240.2596.D.10x10CVP	137798266
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:16 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-7SvGyYwe8k3xHSHE82cTlc4teLcZ3o\_bc1arCayxITz



Scale: 1/4"=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 0.28	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 65 lb	FT = 20%

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

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

**REACTIONS.** All bearings 12-10-6.  
(lb) - Max Horz 1=208(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 7=-220(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=431(LC 19), 7=503(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-7=-361/266

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 8-11-14, Exterior(2) 8-11-14 to 11-11-14, Interior(1) 11-11-14 to 12-8-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 7=220.



July 16, 2019

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

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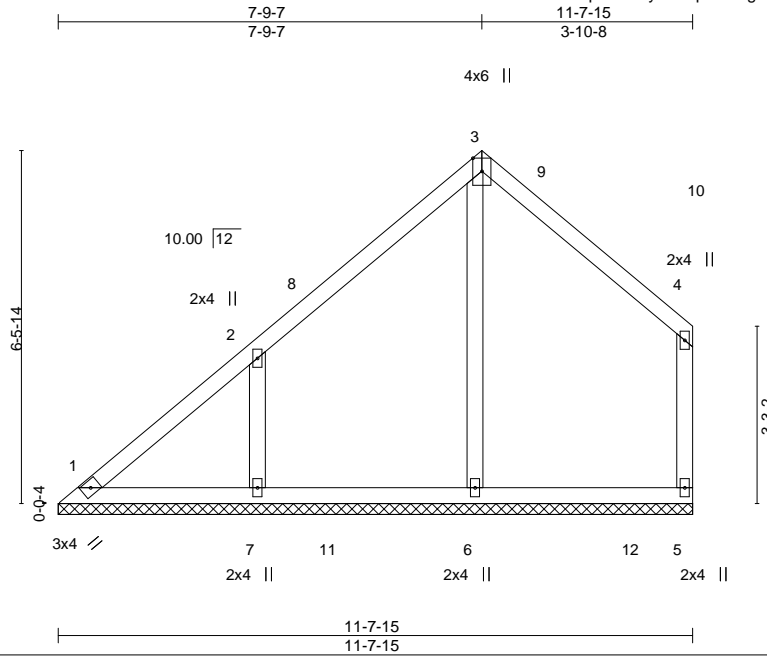


818 Soundside Road  
Edenton, NC 27932

Job 21438A	Truss V2	Truss Type GABLE	Qty 1	Ply 1	240.2596.D.10x10CVP	137798267
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:16 2019 Page 1  
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Scale = 1:42.4

<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 0.21	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 56 lb	FT = 20%

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

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

**REACTIONS.** All bearings 11-7-15.  
 (lb) - Max Horz 1=170(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 7=189(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=431(LC 19), 7=401(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-7=-312/231

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-7-15, Interior(1) 3-7-15 to 7-9-7, Exterior(2) 7-9-7 to 10-9-7, Interior(1) 10-9-7 to 11-6-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 7=189.



July 16, 2019

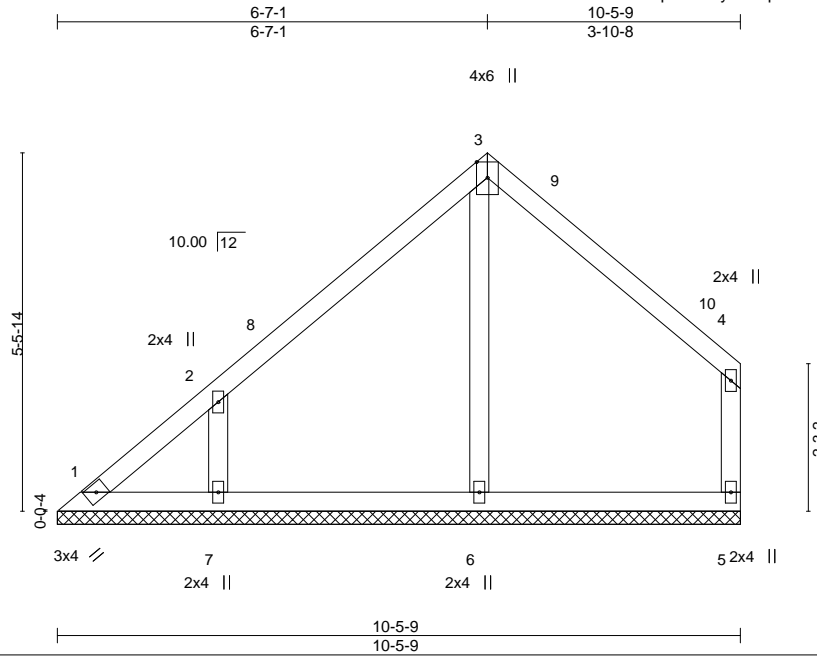
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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 21438A	Truss V3	Truss Type GABLE	Qty 1	Ply 1	240.2596.D.10x10CVP	137798268
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:17 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-beTfuuxGv1CovcsQil7ilqd4slynoHllqHJPk0yxlTY



Scale = 1:35.3

<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 0.19	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 48 lb	FT = 20%

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

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

**REACTIONS.** All bearings 10-5-9.  
(lb) - Max Horz 1=131(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 7=-170(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=307(LC 19), 7=334(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-7=-284/212

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 6-7-1, Exterior(2) 6-7-1 to 9-7-1, Interior(1) 9-7-1 to 10-3-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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, 5 except (jt=lb) 7=170.



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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job 21438A	Truss V4	Truss Type GABLE	Qty 1	Ply 1	240.2596.D.10x10CVP	137798269
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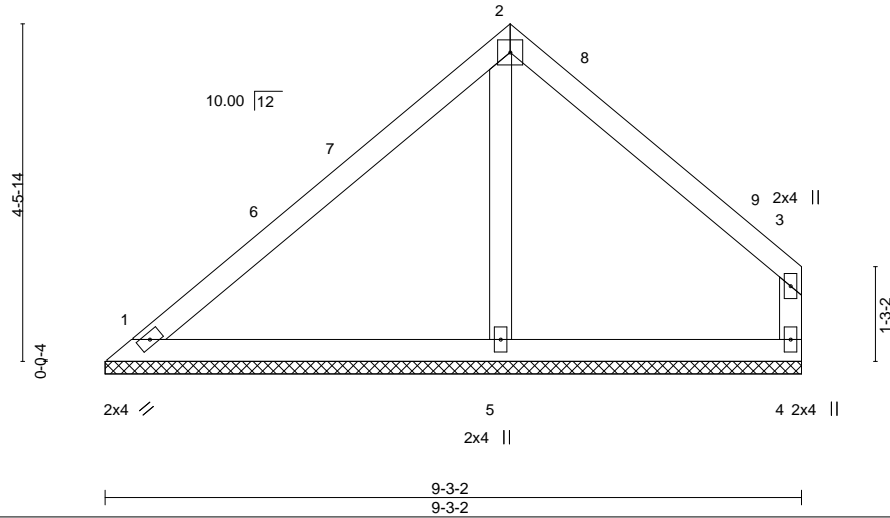
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:18 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-3q115EyufLKWmRdFSfxr19Bu9HwXkMu3L3yHSyXITx



Scale = 1:30.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 38 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 1=197/9-3-2, 4=157/9-3-2, 5=343/9-3-2  
Max Horz 1=100(LC 9)  
Max Uplift 1=-70(LC 13), 4=-91(LC 13), 5=-31(LC 12)  
Max Grav 1=203(LC 20), 4=182(LC 20), 5=386(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-5=-263/77

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 5-4-10, Exterior(2) 5-4-10 to 8-4-10, Interior(1) 8-4-10 to 9-1-6 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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, 4, 5.



July 16, 2019

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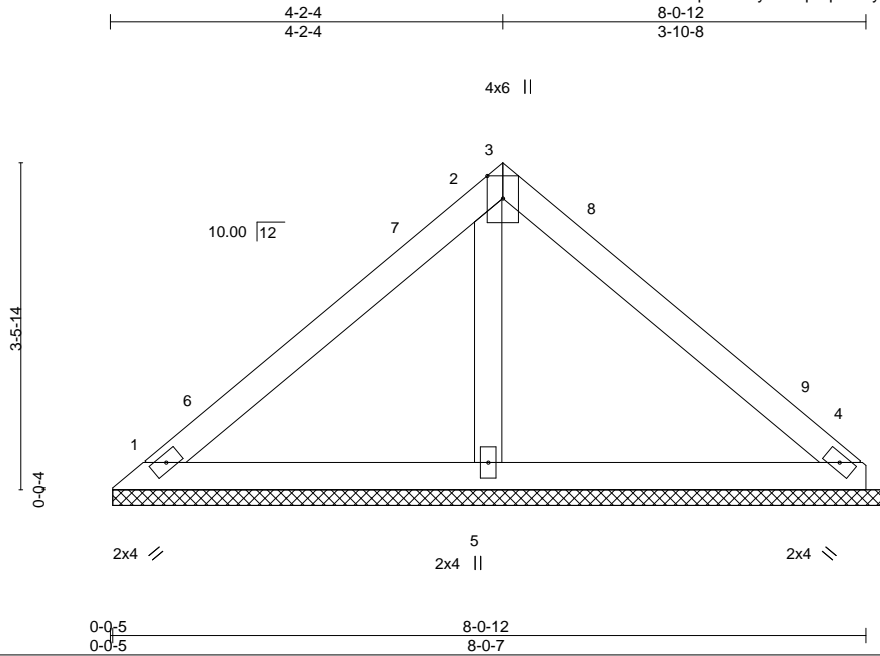
818 Soundside Road  
Edenton, NC 27932



Job 21438A	Truss V5	Truss Type Valley	Qty 1	Ply 1	240.2596.D.10x10CVP	137798270
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:18 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-3q115EyufLKWmRdFSfxr19C29lpXkJu3L3yHSyITx



Scale = 1:24.6

Plate Offsets (X,Y)--	[2:0-1-7,0-1-12], [3:0-2-4,0-0-0]				
<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 0.29	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.14	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 31 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 1=71/8-3-14, 4=86/8-3-14, 5=443/8-3-14  
Max Horz 1=78(LC 9)  
Max Uplift 1=-12(LC 8), 4=-20(LC 8), 5=-183(LC 12)  
Max Grav 1=94(LC 20), 4=143(LC 24), 5=464(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-5=-380/255

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 4-2-4, Exterior(2) 4-2-4 to 7-2-4, Interior(1) 7-2-4 to 7-11-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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, 4 except (jt=lb) 5=183.



July 16, 2019

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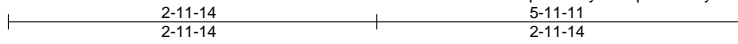
818 Soundside Road  
Edenton, NC 27932

Job 21438A	Truss V6	Truss Type Valley	Qty 1	Ply 1	240.2596.D.10x10CVP	137798271
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:19 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-X0bPJayWQfSW8w0ppAAANFiQPZawGCv11?oWpuyxITw



Scale = 1:18.7

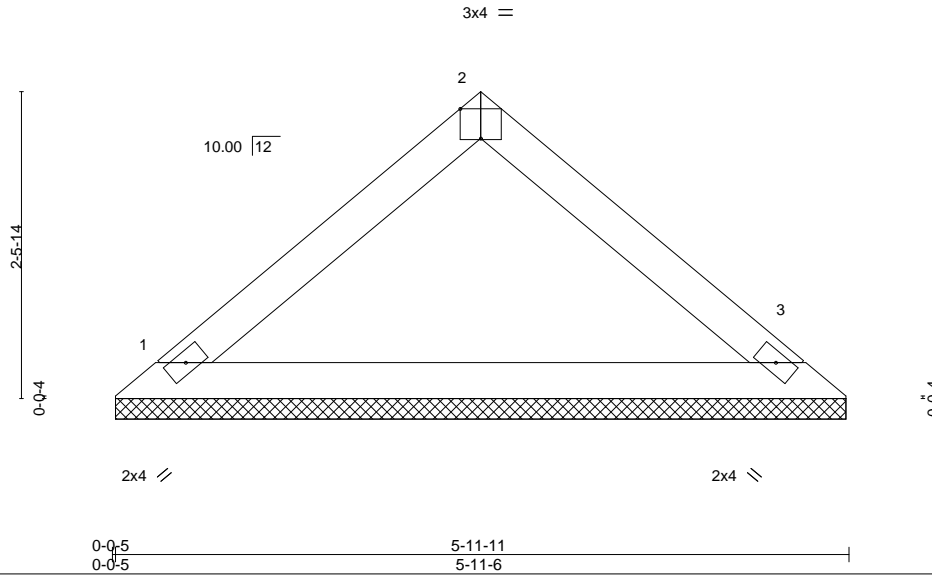


Plate Offsets (X,Y)--	[2:0-2-0,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 19 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 5-11-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=207/5-11-2, 3=207/5-11-2  
Max Horz 1=-53(LC 8)  
Max Uplift 1=-20(LC 12), 3=-20(LC 13)

**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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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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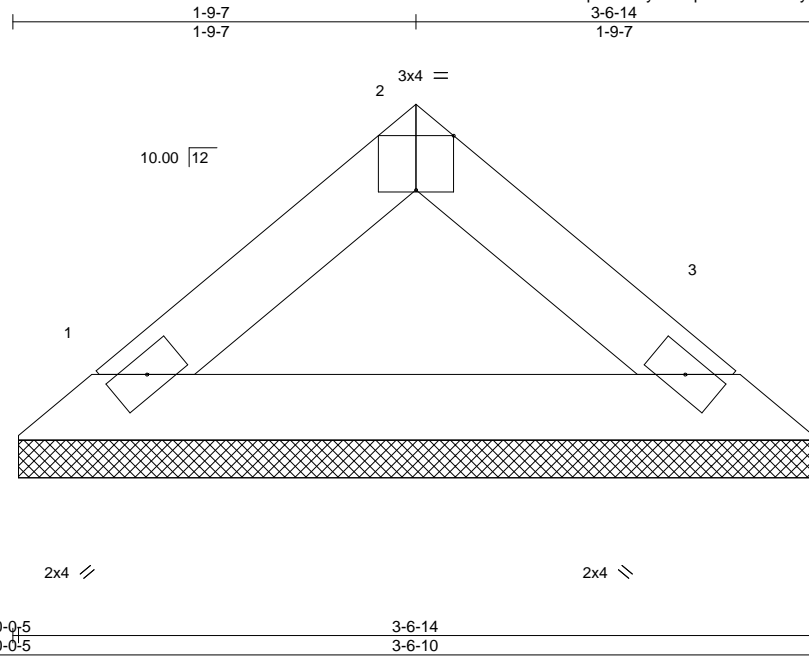
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818 Soundside Road  
Edenton, NC 27932

Job 21438A	Truss V7	Truss Type Valley	Qty 1	Ply 1	240.2596.D.10x10CVP	137798272
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Jul 15 17:28:20 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-0D9nWwz8ByNm3a?NthPwSFcZz\_5?f9BWfY3LLyITv



Scale = 1:10.2

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.03	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Vert(CT) n/a - n/a 999		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
				Weight: 11 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 3-6-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=111/3-6-5, 3=111/3-6-5  
 Max Horz 1=29(LC 11)  
 Max Uplift 1=-10(LC 12), 3=-10(LC 13)

**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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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.



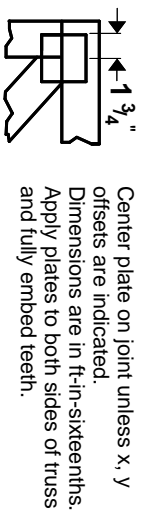
July 16, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
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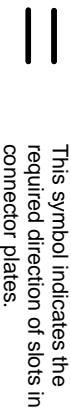
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 Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0-  $\frac{1}{16}$ " from outside edge of truss.



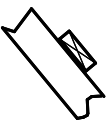
\* Plate location details available in **MITrak 20/20 software** or upon request.

## PLATE SIZE

4 X 4

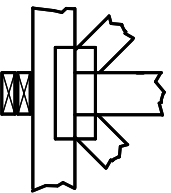
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

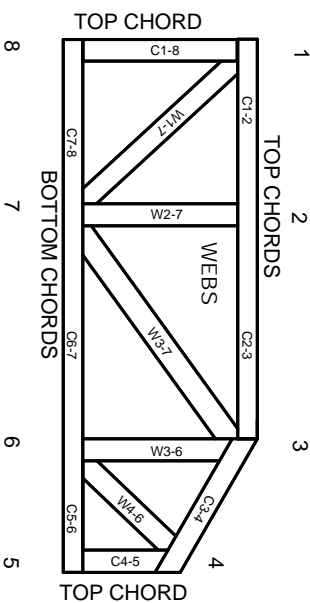


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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# General Safety Notes

**Failure to Follow Could Cause Property Damage or Personal Injury**

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