

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 20709A  
149.2115.B.12x20CVP

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: I37309808 thru I37309841

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

North Carolina COA: C-0844



June 5, 2019

Sevier, Scott

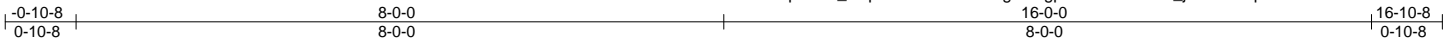
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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

Job	Truss	Truss Type	Qty	Ply	149.2115.B.12x20CVP	137309808
20709A	A1	Common	4	1		

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

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:39 2019 Page 1

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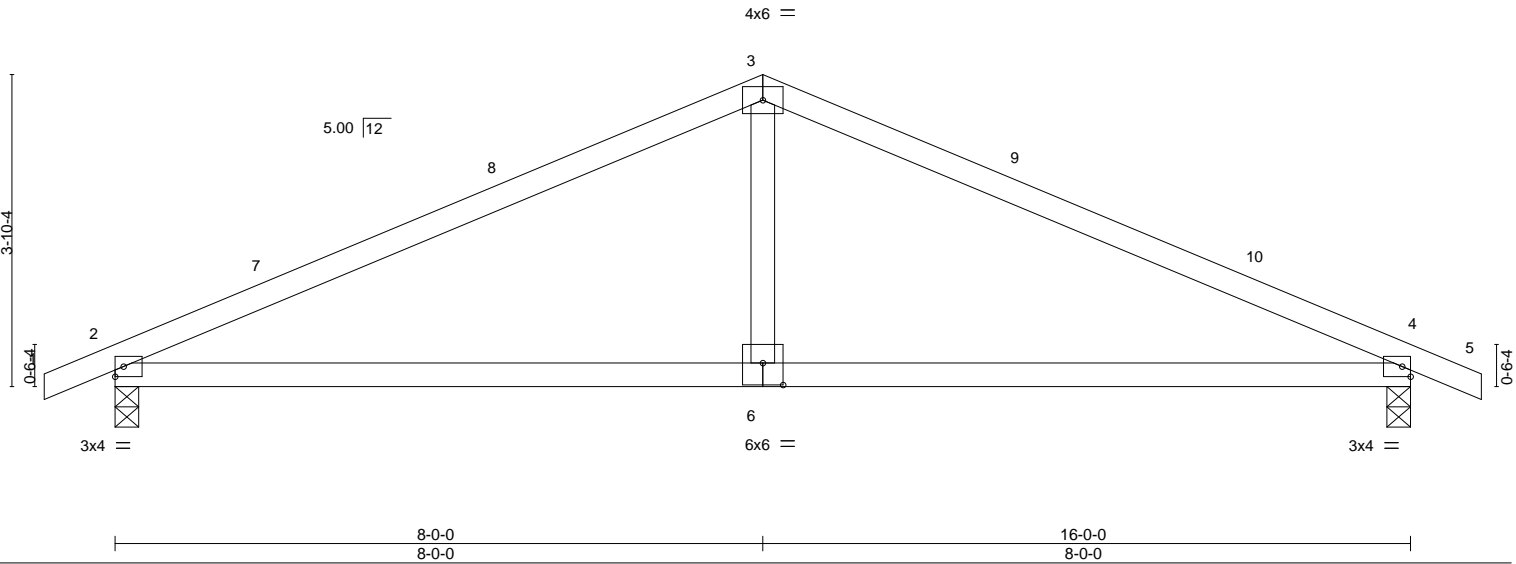


Plate Offsets (X,Y)--	[6:0-3-0,0-3-4]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.79	Vert(LL)	-0.09	2-6	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.20	2-6	>934	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.02	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 58 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-7-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=690/0-3-8, 4=690/0-3-8  
 Max Horz 2=62(LC 16)  
 Max Uplift 2=98(LC 12), 4=98(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-972/140, 3-4=-972/140  
 BOT CHORD 2-6=-35/802, 4-6=-35/802  
 WEBS 3-6=0/381

- 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=25ft; 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 8-0-0, Exterior(2) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 16-10-8 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) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.



Job 20709A	Truss A2	Truss Type Common	Qty 1	Ply 1	149.2115.B.12x20CVP	137309809
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:39 2019 Page 1  
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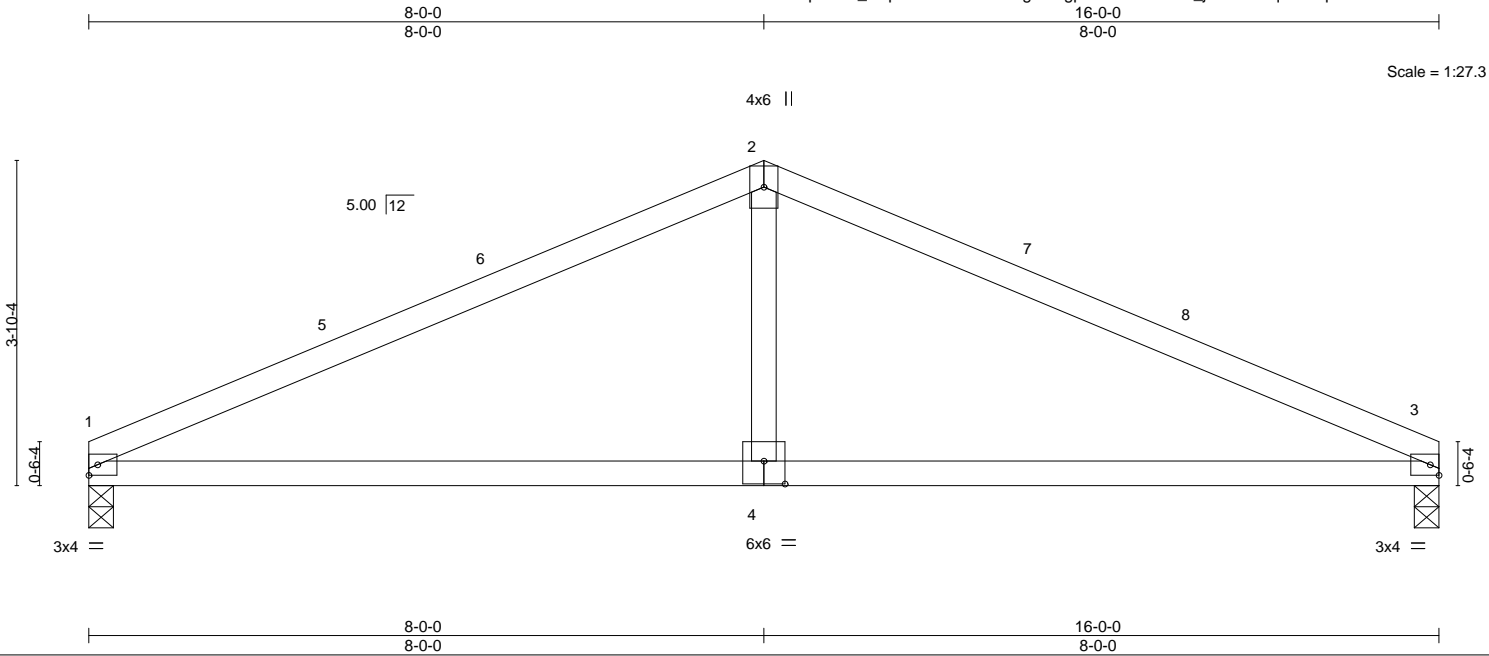


Plate Offsets (X,Y)--	[4:0-3-0,0-3-4]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.84	Vert(LL) -0.09 1-4 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.72	Vert(CT) -0.21 1-4 >914 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT) 0.02 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 55 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 1=628/0-3-8, 3=628/0-3-8  
 Max Horz 1=-59(LC 17)  
 Max Uplift 1=-76(LC 12), 3=-76(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-981/150, 2-3=-981/150  
 BOT CHORD 1-4=-52/813, 3-4=-52/813  
 WEBS 2-4=0/384

- 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; BC DL=6.0psf; h=25ft; 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 8-0-0, Exterior(2) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 15-10-4 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) 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) 1. This connection is for uplift only and does not consider lateral forces.



June 5, 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</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 20709A	Truss AE	Truss Type GABLE	Qty 1	Ply 1	149.2115.B.12x20CVP	137309810
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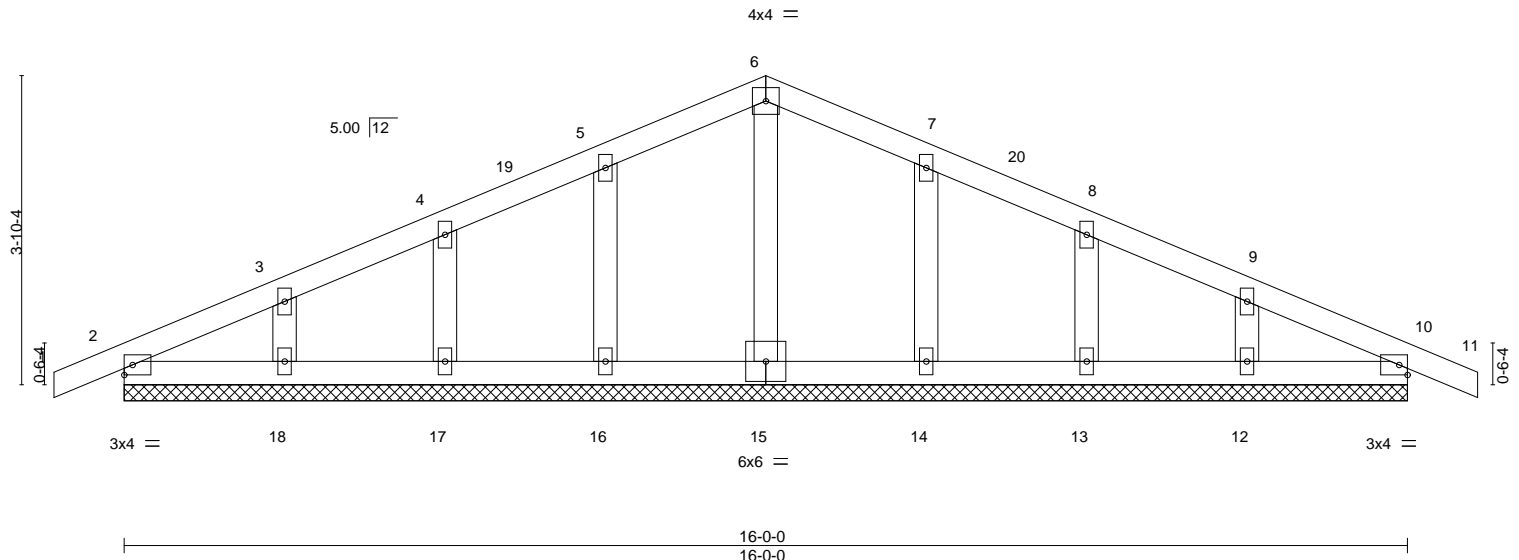
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:40 2019 Page 1

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<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 0.05	Vert(LL)	-0.00	10	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	10	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 72 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 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 16-0-0.  
 (lb) - Max Horz 2=62(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 10, 16, 17, 18, 14, 13, 12, 2  
 Max Grav All reactions 250 lb or less at joint(s) 10, 15, 16, 17, 18, 14, 13, 12, 2

**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; TCCL=6.0psf; BCDL=6.0psf; h=25ft; 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 8-0-0, Corner(3) 8-0-0 to 11-0-0, Exterior(2) 11-0-0 to 16-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 16, 17, 18, 14, 13, 12, 2.



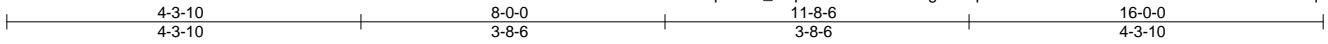
June 5, 2019

Job 20709A	Truss AG	Truss Type Common Girder	Qty 1	Ply 3	149.2115.B.12x20CVP	137309811
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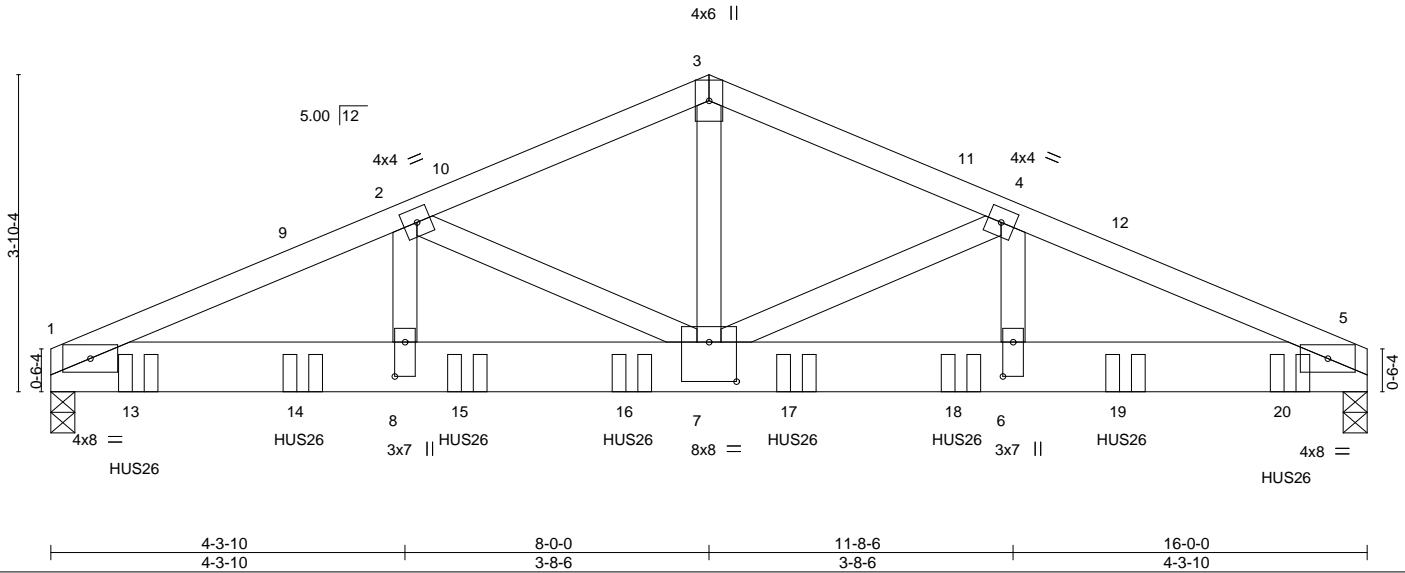


Plate Offsets (X,Y)--	[6:0-5-0,0-1-8], [7:0-4-0,0-5-12], [8:0-5-0,0-1-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.10	6-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.21	6-7	>910		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.65	Horz(CT)	0.04	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 285 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-2-5 oc purlins.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 3-7: 2x4 SP No.2	

<b>REACTIONS.</b> (lb/size)	1=8261/0-3-8, 5=8385/0-3-8
Max Horz	1=57(LC 16)
Max Uplift	1=-1056(LC 12), 5=-1071(LC 13)

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-14447/1885, 2-3=-10771/1441, 3-4=-10771/1441, 4-5=-14442/1884
BOT CHORD 1-8=-1691/13155, 7-8=-1691/13155, 6-7=-1675/13149, 5-6=-1675/13149
WEBS 3-7=-1008/7966, 4-7=-3634/536, 4-6=-386/3185, 2-7=-3640/535, 2-8=-386/3190

- 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 0-7-0 oc.  
Bottom chords connected as follows: 2x8 - 4 rows staggered at 0-4-0 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; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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 8-0-0, Exterior(2) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 15-10-4 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1056, 5=1071.
  - Use USP HUS26 (With 16d nails into Girder & 16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-0-12 from the left end to 15-0-12 to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.

<b>LOAD CASE(S)</b> Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-5=-60, 1-5=-20



Continued on page 2

<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> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 20709A	Truss AG	Truss Type Common Girder	Qty 1	Ply <b>3</b>	149.2115.B.12x20CVP Job Reference (optional)	I37309811
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:42 2019 Page 2  
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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 13=-1924(B) 14=-1923(B) 15=-1923(B) 16=-1923(B) 17=-1923(B) 18=-1923(B) 19=-1923(B) 20=-1925(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/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.



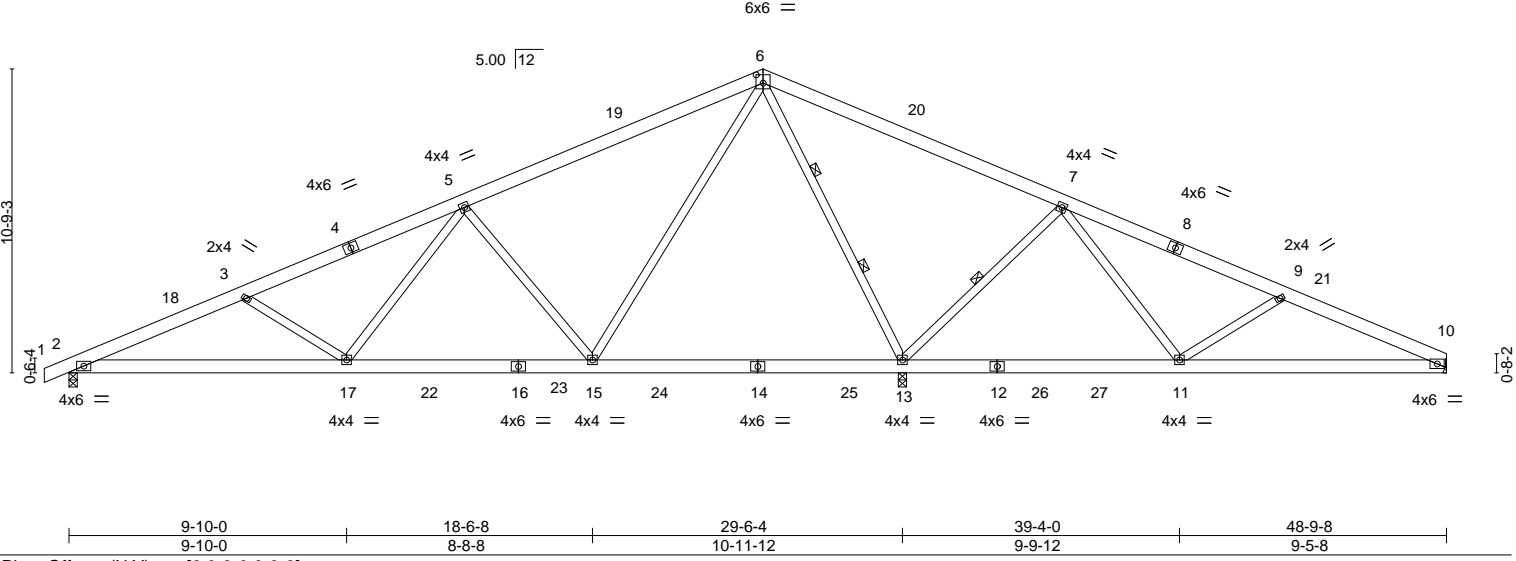
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	149.2115.B.12x20CVP	137309812
20709A	B1	Common	5	1		

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:43 2019 Page 1  
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0-10-8 6-3-6 14-0-0 18-6-8 24-7-0 30-6-12 35-2-0 42-10-11 48-9-8  
 0-10-8 6-3-6 7-8-10 4-6-8 6-0-8 5-11-12 4-7-4 7-8-11 5-10-13

Scale = 1:81.6



<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 0.68	Vert(LL)	-0.14	13-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.23	13-15	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.94	Horz(CT)	0.03	13	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 329 lb	FT = 20%

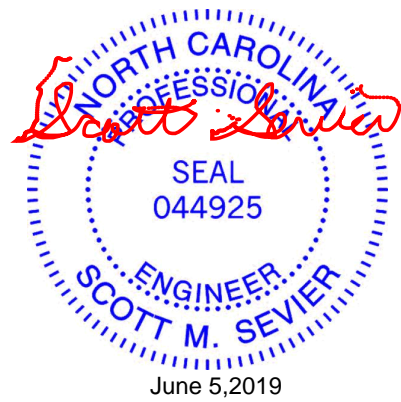
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-10 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-13
	2 Rows at 1/3 pts 6-13

**REACTIONS.** (lb/size) 2=997/0-3-8, 13=2551/0-3-8, 10=400/Mechanical  
 Max Horz 2=182(LC 16)  
 Max Uplift 2=177(LC 12), 13=-207(LC 12), 10=-111(LC 13)  
 Max Grav 2=1030(LC 23), 13=2563(LC 2), 10=504(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1886/352, 3-5=-1542/268, 5-6=-710/214, 6-7=-42/1067, 7-9=-401/235,  
 9-10=-744/241  
 BOT CHORD 2-17=-433/1688, 15-17=-241/1060, 11-13=-392/133, 10-11=-161/639  
 WEBS 3-17=-409/222, 5-17=-14/573, 5-15=-893/348, 6-15=-182/1117, 6-13=-1844/300,  
 7-13=-934/355, 7-11=-5/599, 9-11=-423/222

**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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 4-0-1, Interior(1) 4-0-1 to 24-7-0, Exterior(2) 24-7-0 to 29-5-9, Interior(1) 29-5-9 to 48-8-12 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, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=177, 10=111.
- 7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.



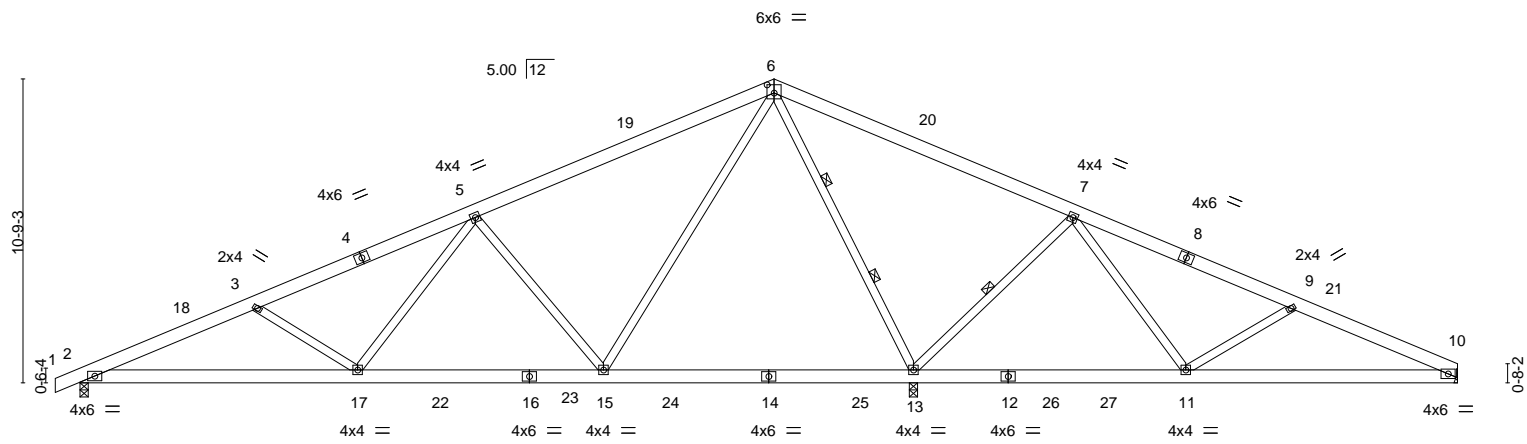


Job	Truss	Truss Type	Qty	Ply	149.2115.B.12x20CVP	137309813
20709A	B1A	Common	5	1		

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:44 2019 Page 1

ID:u??Rpr1fY8\_Hap73zCKv?WzeKCg-Q9eZsmXXBzca1cgSnGguFlqUZrop\_Hi\_aRrgDjz9eLz  
 -0-10-8 6-3-6 14-0-0 18-6-8 24-7-0 30-6-12 35-2-0 42-10-11 48-9-8  
 0-10-8 6-3-6 7-8-10 4-6-8 6-0-8 5-11-12 4-7-4 7-8-11 5-10-13

Scale = 1:81.6



	9-10-0	18-6-8	29-6-4	39-2-0	48-9-8
	9-10-0	8-8-8	10-11-12	9-7-12	9-7-8

Plate Offsets (X,Y)-- [6:0-3-0,0-3-8]

<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 0.68	Vert(LL)	-0.14	13-15	>999	240	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.23	13-15	>999	180	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.94	Horz(CT)	0.03	13	n/a	n/a	
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 329 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-10 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-13
	2 Rows at 1/3 pts 6-13

**REACTIONS.** (lb/size) 2=997/0-3-8, 13=2550/0-3-8, 10=401/Mechanical  
 Max Horz 2=182(LC 12)  
 Max Uplift 2=177(LC 12), 13=-207(LC 12), 10=-111(LC 13)  
 Max Grav 2=1030(LC 23), 13=2561(LC 2), 10=504(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1887/352, 3-5=-1543/268, 5-6=-712/214, 6-7=-43/1067, 7-9=-388/243,  
 9-10=-741/243  
 BOT CHORD 2-17=-433/1688, 15-17=-240/1061, 11-13=-390/134, 10-11=-163/637  
 WEBS 3-17=-409/222, 5-17=-15/572, 5-15=-893/348, 6-15=-181/1117, 6-13=-1844/300,  
 7-13=-936/353, 7-11=-2/591, 9-11=-430/225

**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; BC DL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 4-0-1, Interior(1) 4-0-1 to 24-7-0, Exterior(2) 24-7-0 to 29-5-9, Interior(1) 29-5-9 to 48-8-12 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, with BC DL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=177, 10=111.
- 7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.





Job	Truss	Truss Type	Qty	Ply	149.2115.B.12x20CVP	137309814
20709A	B2	Common	4	1		

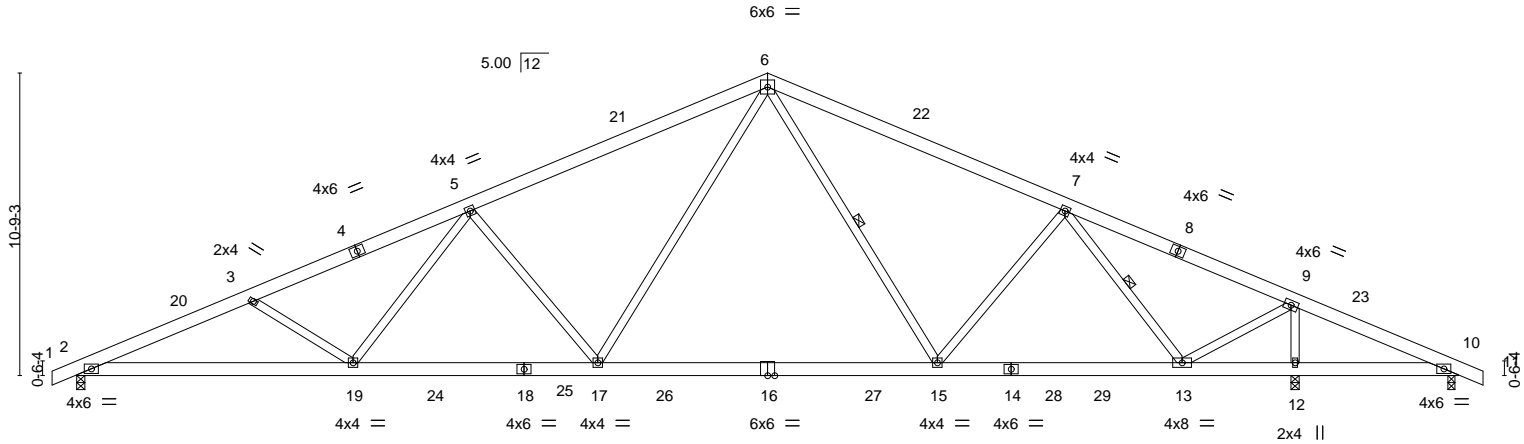
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:45 2019 Page 1

ID:u??Rpr1fy8\_Hap73zCKv?WzeKCG-uMCx36Y9yHkRfmFeL\_B7nyNe\_F2XjkE7o5aEI9z9eLy

-0-10-8	6-3-6	14-0-0	18-6-8	24-7-0	30-7-8	35-2-0	39-4-0	42-10-6	43-4-4	49-2-0	50-0-8
0-10-8	6-3-6	7-8-10	4-6-8	6-0-8	6-0-8	4-6-8	4-2-0	3-6-6	0-5-14	5-9-12	0-10-8

Scale = 1:82.0



9-10-0	18-6-8	24-7-0	30-7-8	35-2-0	39-4-0	43-4-4	49-0-8	49-2-0
9-10-0	8-8-8	6-0-8	6-0-8	4-6-8	4-2-0	4-0-4	5-8-4	0-1-8

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 0.70	Vert(LL)	-0.28 15-17	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.50 15-17	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.92	Horz(CT)	0.09 12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 336 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-4-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-15, 7-13

**REACTIONS.** (lb/size) 2=1725/0-3-8, 12=2515/0-3-8, 10=-206/0-3-0  
 Max Horz 2=177(LC 12)  
 Max Uplift 2=-243(LC 12), 12=-261(LC 13), 10=-289(LC 25)  
 Max Grav 2=1725(LC 1), 12=2515(LC 1), 10=54(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3606/515, 3-5=-3282/434, 5-6=-2555/389, 6-7=-2070/334, 7-9=-1042/180,  
 9-10=-129/1155  
 BOT CHORD 2-19=-577/3263, 17-19=-389/2711, 15-17=-88/1685, 13-15=-109/1662, 12-13=-996/149,  
 10-12=-996/149  
 WEBS 3-19=-365/218, 5-19=-14/527, 5-17=-874/348, 6-17=-172/1147, 7-15=-52/388,  
 9-12=-2340/306, 6-15=-76/380, 7-13=-1323/196, 9-13=-164/2220

**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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 4-0-8, Interior(1) 4-0-8 to 24-7-0, Exterior(2) 24-7-0 to 29-6-0, Interior(1) 29-6-0 to 50-0-8 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, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=243.
- 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 10. This connection is for uplift only and does not consider lateral forces.



June 5, 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

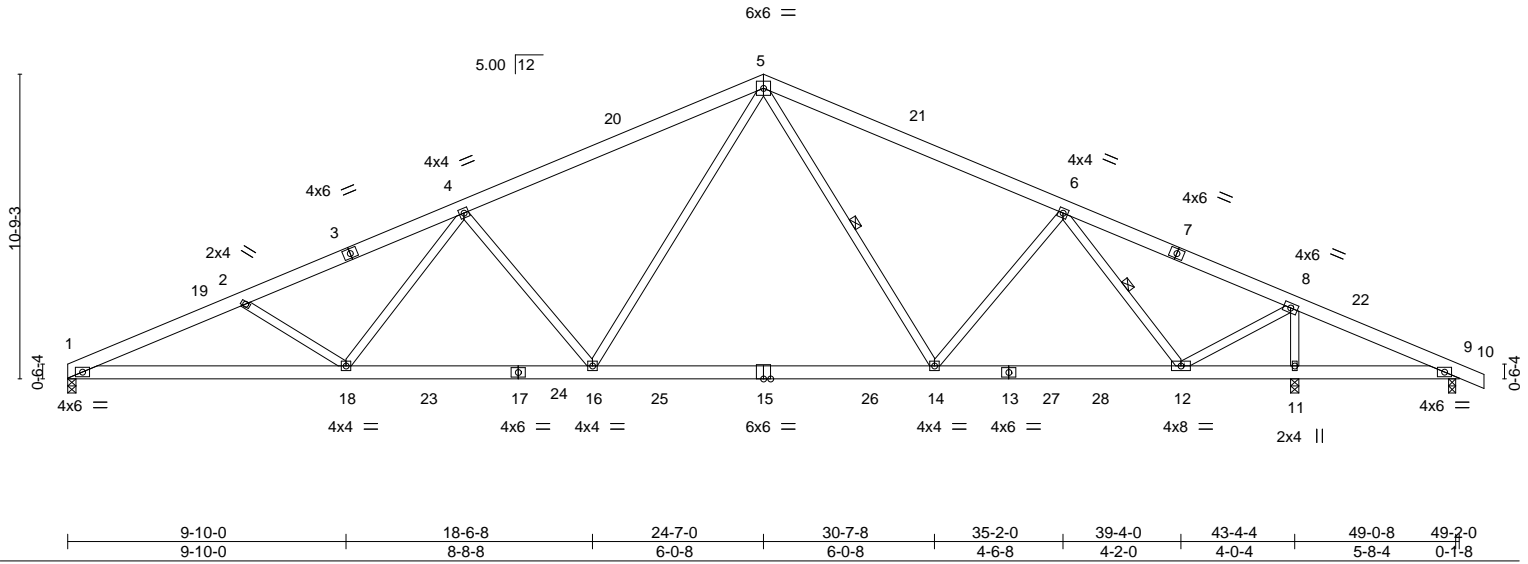
Job 20709A	Truss B2A	Truss Type Common	Qty 2	Ply 1	149.2115.B.12x20CVP	137309815
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:47 2019 Page 1

ID:u??Rpr1fY8\_Hap73zCKv?WzeKCg-qkKiUnaPUu\_9u4P1SOEbsNS\_T3j?BeiQGP3Kp2z9eLw  
 30-7-8 35-2-0 39-4-0 42-10-6 43-4-4 49-2-0 50-0-8  
 6-0-8 4-6-8 4-2-0 3-6-6 0-5-14 5-9-12 0-10-8

Scale = 1:81.4



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 0.70	Vert(LL)	-0.28 14-16	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.51 14-16	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.92	Horz(CT)	0.09 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 334 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-3-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-14, 6-12

**REACTIONS.** (lb/size) 1=1663/0-3-8, 11=2516/0-3-8, 9=-207/0-3-0  
 Max Horz 1=-182(LC 13)  
 Max Uplift 1=-221(LC 12), 11=-262(LC 13), 9=-289(LC 25)  
 Max Grav 1=1663(LC 1), 11=2516(LC 1), 9=54(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-3616/521, 2-4=-3289/436, 4-5=-2557/396, 5-6=-2071/334, 6-8=-1042/180,  
 8-9=-130/1156  
 BOT CHORD 1-18=-584/3274, 16-18=-390/2714, 14-16=-89/1686, 12-14=-110/1663, 11-12=-997/150,  
 9-11=-997/150  
 WEBS 2-18=-370/223, 4-18=-16/530, 4-16=-876/348, 5-16=-173/1148, 5-14=-76/380,  
 6-14=-51/389, 8-11=-2341/306, 6-12=-1324/199, 8-12=-169/2221

- 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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 5-0-12, Interior(1) 5-0-12 to 24-7-0, Exterior(2) 24-7-0 to 29-6-0, Interior(1) 29-6-0 to 50-0-8 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 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) 1=221.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 9. This connection is for uplift only and does not consider lateral forces.



June 5, 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 20709A	Truss B3	Truss Type Common	Qty 8	Ply 1	149.2115.B.12x20CVP	137309816
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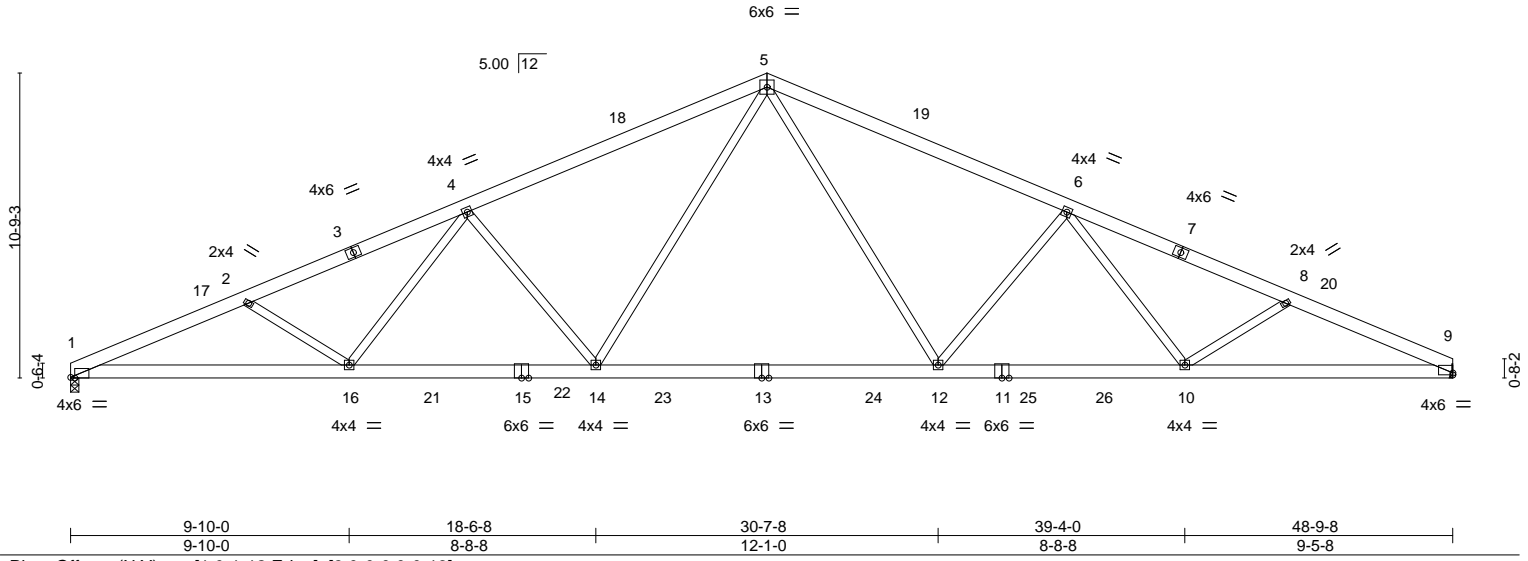
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:48 2019 Page 1

ID:u??Rpr1fY8\_Hap73zCKv?WzeKCg-Jxu4i7b2FC60WE\_D06lqPb?6dT2Tw52aU3puMUz9eLv



Scale = 1:81.3



<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 0.87	Vert(LL) -0.38 12-14 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.96	Vert(CT) -0.72 12-14 >808 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.92	Horz(CT) 0.17 9 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 327 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 1=1943/0-3-8, 9=1943/Mechanical  
 Max Horz 1=-172(LC 17)  
 Max Uplift 1=-237(LC 12), 9=-235(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-4311/562, 2-4=-3994/478, 4-5=-3273/467, 5-6=-3254/466, 6-8=-3902/468, 8-9=-4162/540  
 BOT CHORD 1-16=-627/3910, 14-16=-433/3370, 12-14=-134/2347, 10-12=-284/3329, 9-10=-432/3743  
 WEBS 2-16=-358/222, 4-16=-16/515, 4-14=-871/348, 5-14=-171/1148, 5-12=-167/1117, 6-12=-836/345, 6-10=-9/458, 8-10=-271/207

- 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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 5-0-5, Interior(1) 5-0-5 to 24-7-0, Exterior(2) 24-7-0 to 29-5-9, Interior(1) 29-5-9 to 48-8-12 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 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) 1=237, 9=235.



Job	Truss	Truss Type	Qty	Ply	149.2115.B.12x20CVP	137309817
20709A	BE1	Common Supported Gable	1	1		

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

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:51 2019 Page 1

ID:u??Rpr1fY8\_Hap73zCKv?WzeKCG-jWZDK9dwY7UbNhihEIX1Ddp?gHx7do0B11Yypz9eLS

-0-10-8 24-7-0 48-9-8  
0-10-8 24-7-0 24-2-8

Scale = 1:82.1

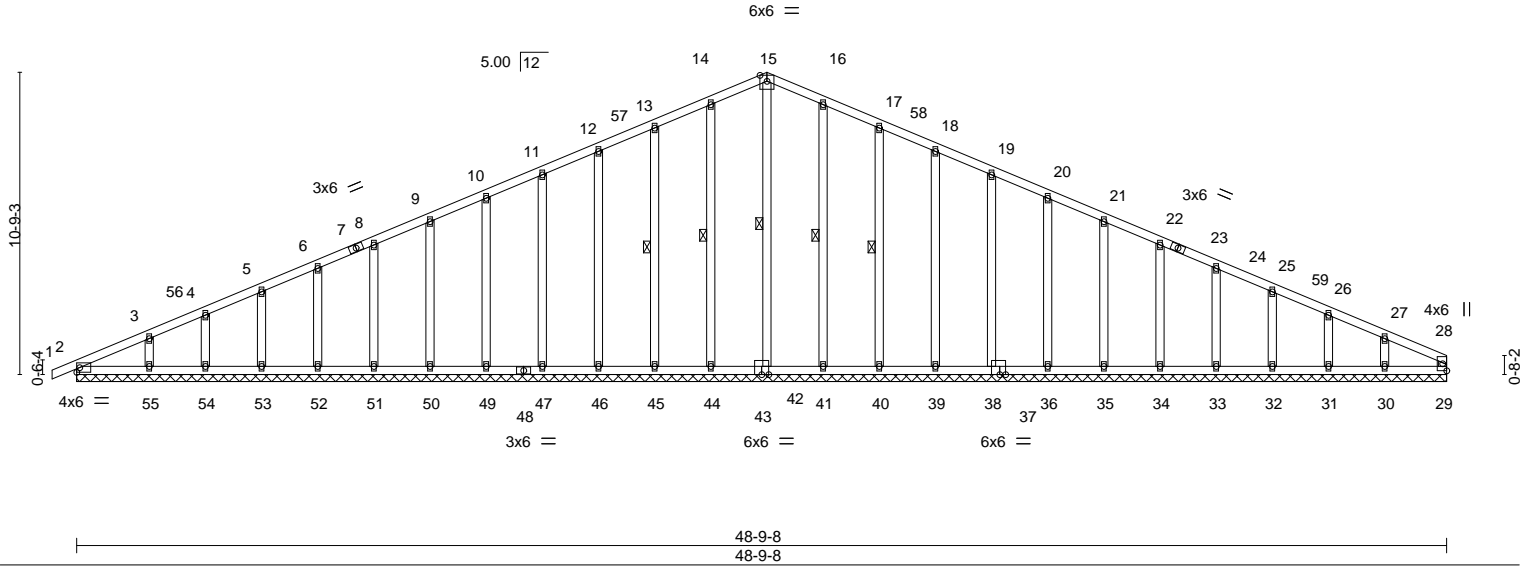


Plate Offsets (X, Y)-- [28:0-0-12,0-1-12], [29:0-0-0,0-1-12], [37:0-0-0,0-1-12], [38:0-2-8,0-0-0], [38:0-1-12,0-0-0], [42:0-1-12,0-0-0], [43:0-0-0,0-1-12]

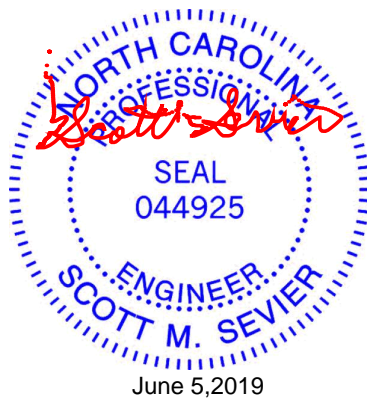
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	29	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 339 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 2x4 SP No.3	WEBS 1 Row at midpt 15-42, 14-44, 13-45, 16-41, 17-40
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 48-9-8.  
(lb) - Max Horz 2=189(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 41, 40, 39, 38, 36, 35, 34, 33, 32, 31, 30  
Max Grav All reactions 250 lb or less at joint(s) 29, 2, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 41, 40, 39, 38, 36, 35, 34, 33, 32, 31, 30

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 11-12=-86/252, 12-13=-99/290, 13-14=-113/331, 14-15=-126/364, 15-16=-126/367, 16-17=-113/334, 17-18=-99/293, 18-19=-86/255

- 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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 4-0-1, Exterior(2) 4-0-1 to 24-7-0, Corner(3) 24-7-0 to 29-5-9, Exterior(2) 29-5-9 to 48-7-12 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.
  - 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) 2, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 41, 40, 39, 38, 36, 35, 34, 33, 32, 31, 30.



Job 20709A	Truss BE2	Truss Type Common Supported Gable	Qty 1	Ply 1	149.2115.B.12x20CVP	137309818
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:53 2019 Page 1  
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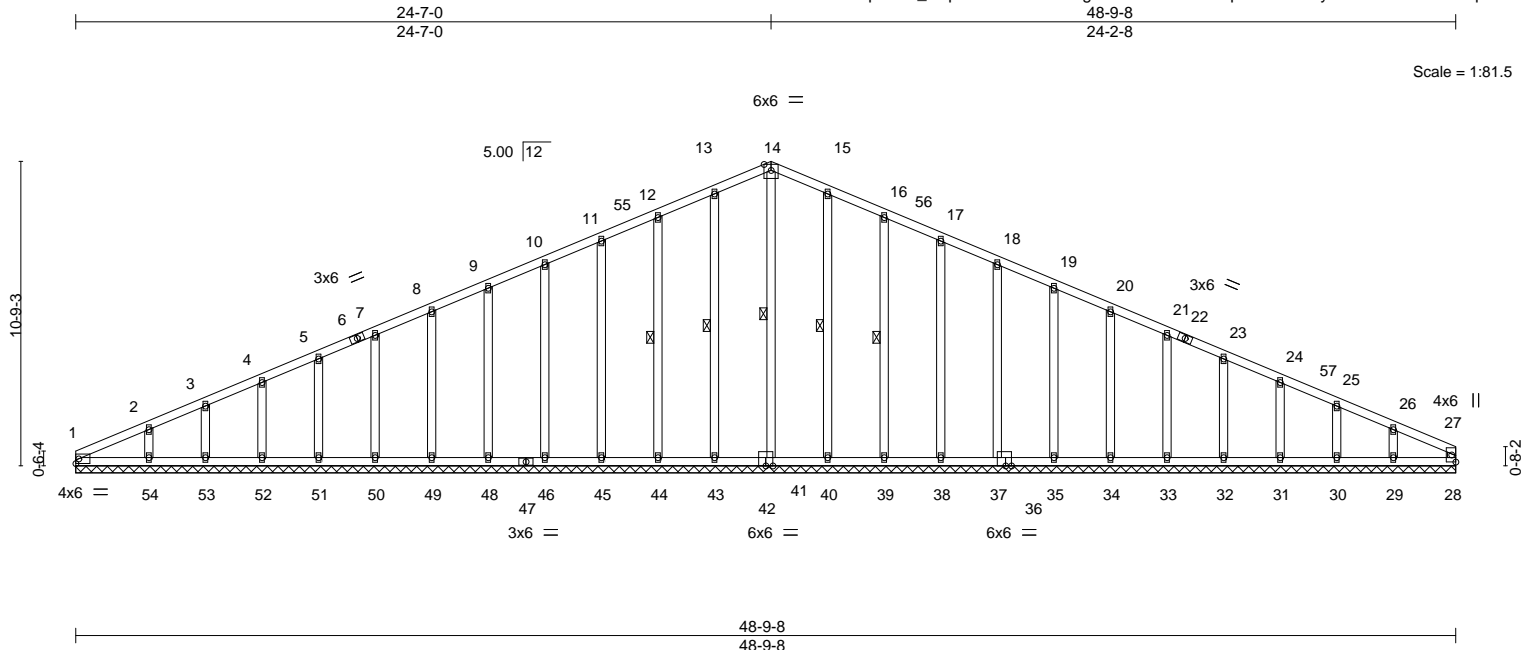


Plate Offsets (X,Y)-- [27:0-0-12,0-1-12], [28:0-0-0,0-1-12], [36:0-0-0,0-1-12], [37:0-2-8,0-0-0], [37:0-1-12,0-0-0], [41:0-1-12,0-0-0], [42:0-0-0,0-1-12]

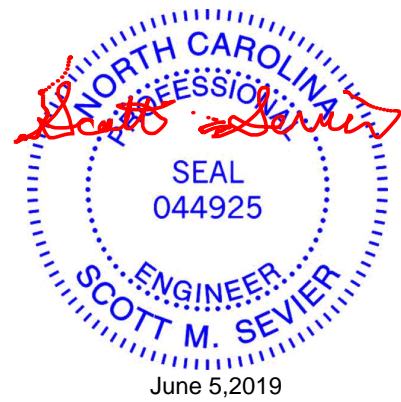
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	28	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 338 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, except end verticals.
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 14-41, 13-43, 12-44, 15-40, 16-39
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 48-9-8.  
 (lb) - Max Horz 1=184(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 40, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29  
 Max Grav All reactions 250 lb or less at joint(s) 28, 1, 41, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 40, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 10-11=-86/253, 11-12=-99/291, 12-13=-113/332, 13-14=-126/365, 14-15=-126/367, 15-16=-113/334, 16-17=-99/293, 17-18=-86/255

- 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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-0-0 to 4-7-0, Exterior(2) 4-7-0 to 24-7-0, Corner(3) 24-7-0 to 29-5-9, Exterior(2) 29-5-9 to 48-7-12 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.
  - 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) 1, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 40, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29.



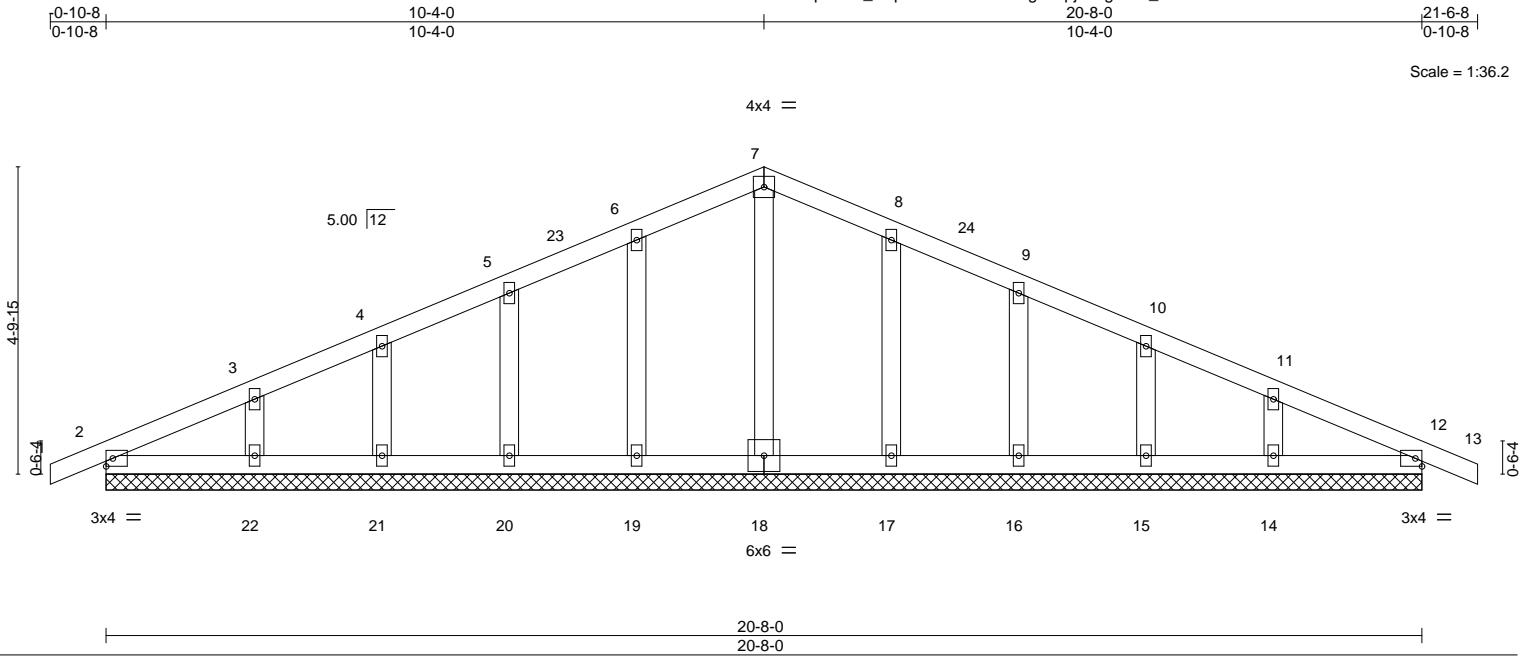


Job	Truss	Truss Type	Qty	Ply	149.2115.B.12x20CVP	137309819
20709A	CE	Common Supported Gable	1	1		
84 Components (Dunn), Dunn, NC - 28334,						Job Reference (optional)

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:55 2019 Page 1

ID:u??Rpr1fy8\_Hap73zCKv?WzeKCg-bHpjAWgRbM\_1rJ0Zw4NTB3oWZHfS3TQc5f?m5az9eLo  
 20-8-0 21-6-8  
 10-4-0 10-10-8

Scale = 1:36.2



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 0.05	Vert(LL)	-0.00	12	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	12	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 100 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 20-8-0.  
 (lb) - Max Horz 2=-78(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 19, 20, 21, 22, 17, 16, 15, 14, 12  
 Max Grav All reactions 250 lb or less at joint(s) 2, 18, 19, 20, 21, 22, 17, 16, 15, 14, 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; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-4-0, Exterior(2) 2-4-0 to 10-4-0, Corner(3) 10-4-0 to 13-4-0, Exterior(2) 13-4-0 to 21-6-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 19, 20, 21, 22, 17, 16, 15, 14, 12.



June 5, 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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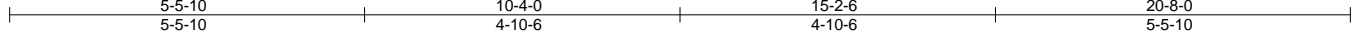


Job 20709A	Truss CG	Truss Type Common Girder	Qty 1	Ply 3	149.2115.B.12x20CVP	137309820
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:56 2019 Page 1

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Scale = 1:35.5

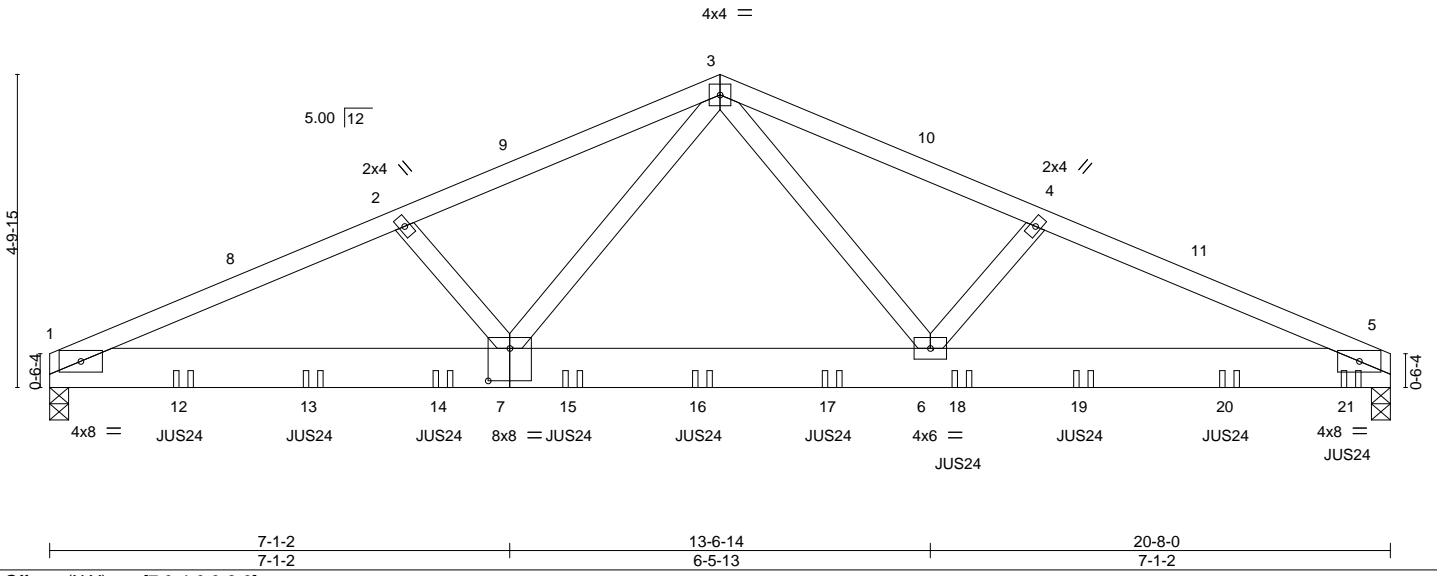


Plate Offsets (X,Y)-- [7:0-4-0,0-6-0]

<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 0.26	Vert(LL)	-0.08	6-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.14	6-7	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.35	Horz(CT)	0.03	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 360 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	

**REACTIONS.** (lb/size) 1=3061/0-3-8, 5=3414/0-3-8  
 Max Horz 1=73(LC 12)  
 Max Uplift 1=668(LC 12), 5=753(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-5866/1316, 2-3=-5707/1313, 3-4=-5716/1314, 4-5=-5876/1317  
 BOT CHORD 1-7=-1202/5331, 6-7=-753/3709, 5-6=-1153/5340  
 WEBS 3-6=-598/2547, 3-7=-595/2531

**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 - 2 rows staggered at 0-4-0 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=25ft; 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 10-4-0, Exterior(2) 10-4-0 to 13-4-0, Interior(1) 13-4-0 to 20-6-4 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=753.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.
- Use USP JUS24 (With 10d nails into Girder & 10d nails into Truss) or equivalent spaced at 2-3-0 oc max. starting at 2-0-12 from the left end to 20-0-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-743 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><b>ENGINEERING BY</b>  <b>TRENCO</b>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job 20709A	Truss CG	Truss Type Common Girder	Qty 1	Ply <b>3</b>	149.2115.B.12x20CVP Job Reference (optional)	I37309820
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:56 2019 Page 2  
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**LOAD CASE(S)** Standard

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 12=-484(B) 13=-484(B) 14=-484(B) 15=-484(B) 16=-484(B) 17=-484(B) 18=-484(B) 19=-484(B) 20=-484(B) 21=-489(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/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.



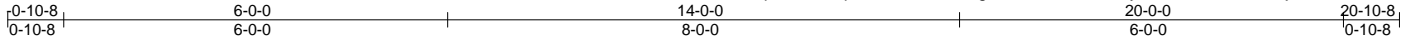
818 Soundside Road  
Edenton, NC 27932

Job 20709A	Truss P1	Truss Type Hip	Qty 1	Ply 1	149.2115.B.12x20CVP	137309821
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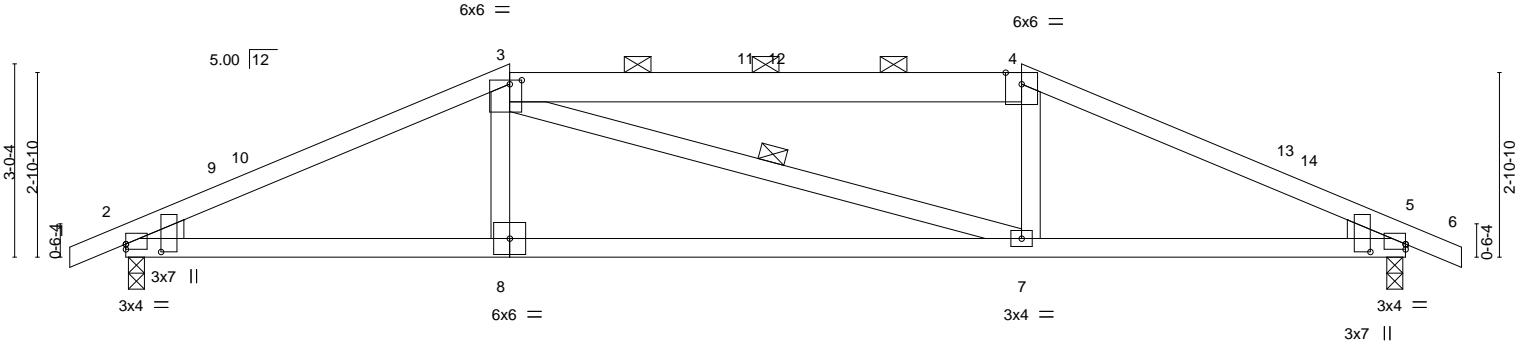
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:57 2019 Page 1

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Scale = 1:36.0



0-0-8 6-0-0 14-0-0 19-11-8 20-0-0 0-0-8 5-11-8 8-0-0 5-11-8 0-0-8
Plate Offsets (X,Y)-- [2:0-1-7,0-6-10], [2:0-0-0,0-1-0], [3:0-2-4,0-0-12], [5:0-0-0,0-1-0], [5:0-1-7,0-6-10]

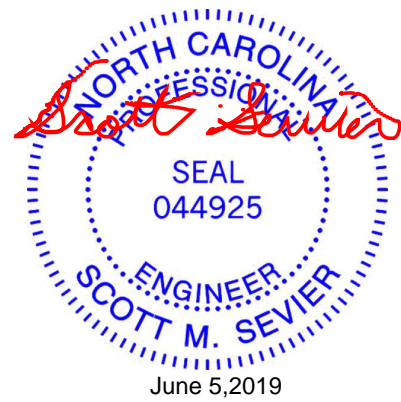
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	-0.11	7-8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.23	7-8	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.04	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 93 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 3-4: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-11-7 oc purlins, except 2-0-0 oc purlins (5-4-6 max.): 3-4.
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 3-7
WEDGE Left: 2x4 SP No.3, Right: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=850/0-3-0, 5=850/0-3-0  
Max Horz 2=46(LC 12)  
Max Uplift 2=-108(LC 8), 5=-108(LC 9)

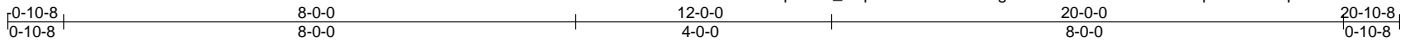
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1518/238, 3-4=-1322/264, 4-5=-1525/236  
BOT CHORD 2-8=-160/1326, 7-8=-160/1326, 5-7=-152/1332  
WEBS 3-8=0/312, 4-7=0/314

- 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=25ft; 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 6-0-0, Exterior(2) 6-0-0 to 10-2-15, Interior(1) 10-2-15 to 14-0-0, Exterior(2) 14-0-0 to 18-2-15, Interior(1) 18-2-15 to 20-10-8 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) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

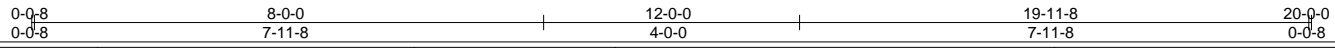
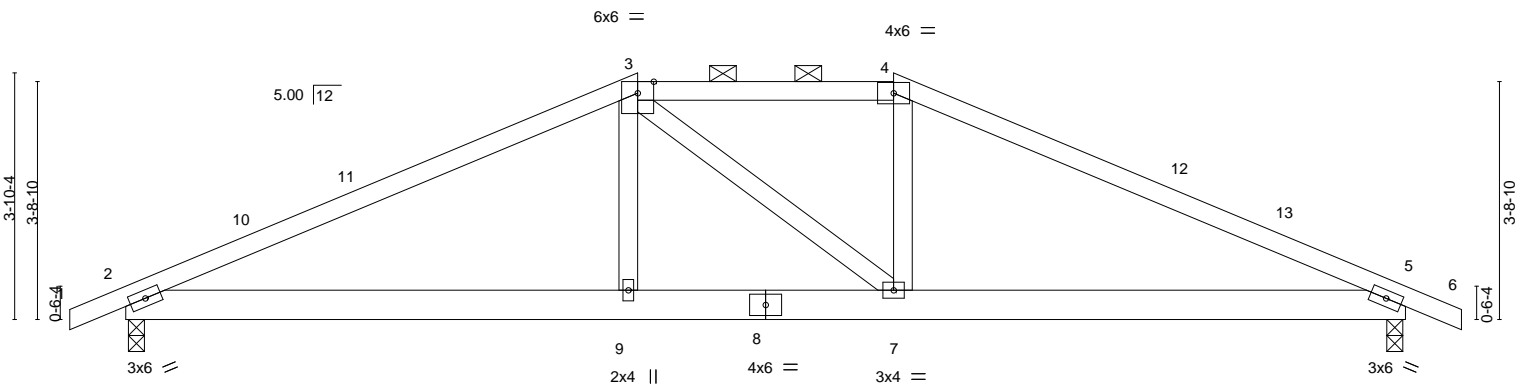


Job	Truss	Truss Type	Qty	Ply	149.2115.B.12x20CVP	137309822
20709A	P2	COMMON	1	1		
84 Components (Dunn), Dunn, NC - 28334,						Job Reference (optional)

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:58 2019 Page 1  
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Scale = 1:36.0



<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)	0.11	5-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.12	5-7	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.02	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 98 lb	FT = 20%

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

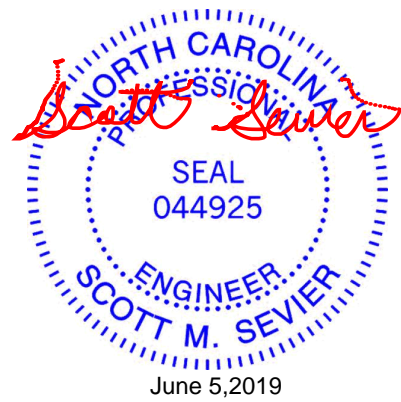
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-2-0 max.): 3-4.  
 BOT CHORD Rigid ceiling directly applied or 7-5-11 oc bracing.

**REACTIONS.** (lb/size) 2=850/0-3-0, 5=850/0-3-0  
 Max Horz 2=-61(LC 13)  
 Max Uplift 2=-266(LC 8), 5=-266(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1376/997, 3-4=-1163/955, 4-5=-1376/997  
 BOT CHORD 2-9=-835/1171, 7-9=-824/1163, 5-7=-832/1170  
 WEBS 3-9=-248/270, 4-7=-262/270

**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=25ft; 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 8-0-0, Exterior(2) 8-0-0 to 16-2-15, Interior(1) 16-2-15 to 20-10-8 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) 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) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



**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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 Edenton, NC 27932

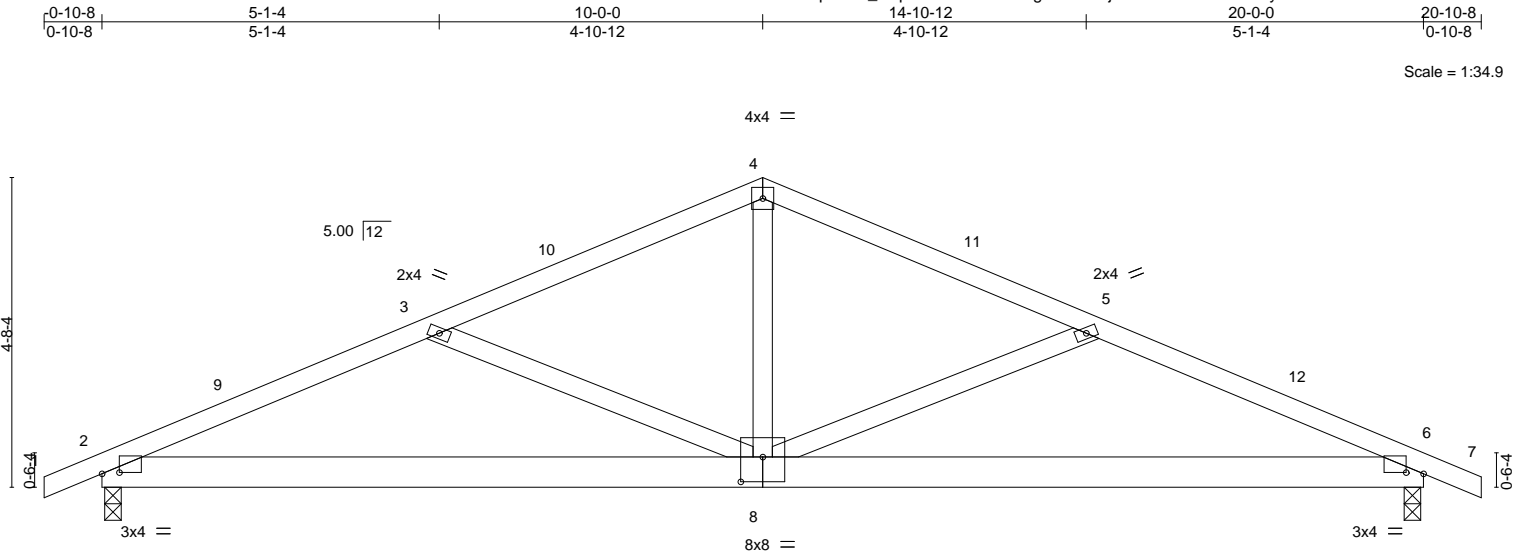
Job	Truss	Truss Type	Qty	Ply	149.2115.B.12x20CVP	137309823
20709A	P3	Common	1	1		

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

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:07:59 2019 Page 1

ID:u??Rpr1fY8\_Hap73zCKv?WzeKCg-U22E?ujxfaVSKwKK9wRPMvy40uv2?EcB0GzzFLz9eLk  
14-10-12 20-0-0 20-10-8  
4-10-12 5-1-4 0-10-8

Scale = 1:34.9



0-0-8	10-0-0	19-11-8	20-0-0
0-0-8	9-11-8	9-11-8	0-0-8

Plate Offsets (X,Y)-- [2:0-3-2,0-0-4], [6:0-3-2,0-0-4], [8:0-4-0,0-4-8]					
<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 0.54	Vert(LL) 0.13 2-8 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.51	Vert(CT) -0.15 2-8 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.22	Horz(CT) 0.03 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 104 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-7-2 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 7-9-6 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=850/0-3-0, 6=850/0-3-0  
Max Horz 2=-76(LC 13)  
Max Uplift 2=-242(LC 8), 6=-242(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1474/929, 3-4=-1108/848, 4-5=-1108/848, 5-6=-1474/929  
BOT CHORD 2-8=-799/1295, 6-8=-805/1295  
WEBS 4-8=-533/564, 5-8=-382/222, 3-8=-382/221

- 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; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 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) 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) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.



Job	Truss	Truss Type	Qty	Ply	149.2115.B.12x20CVP	137309824
20709A	PG	Common Girder	1	1		

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

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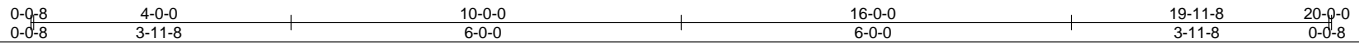
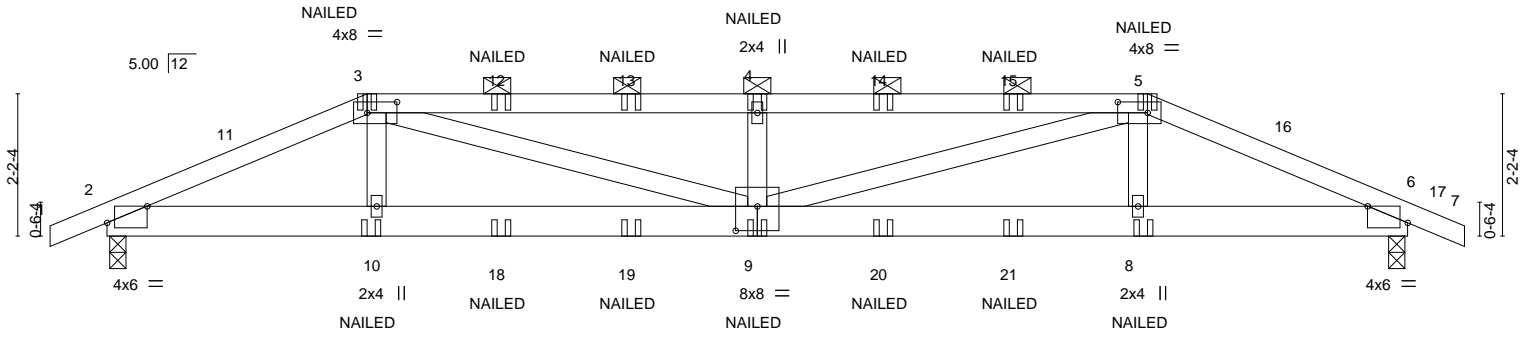


Plate Offsets (X,Y)-- [2:0-7-6,Edge], [3:0-5-8,0-2-0], [5:0-5-8,0-2-0], [6:0-7-6,Edge], [9:0-4-0,0-4-8]

<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 0.86	Vert(LL)	0.21	9	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.64	Vert(CT)	-0.27	9	>880	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.52	Horz(CT)	0.04	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 104 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 \*Except\*  
 3-5: 2x4 SP No.1  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-10-1 oc purlins, except  
 2-0-0 oc purlins (2-9-4 max.): 3-5.  
 BOT CHORD Rigid ceiling directly applied or 6-5-2 oc bracing.

**REACTIONS.** (lb/size) 2=1109/0-3-0, 6=1109/0-3-0  
 Max Horz 2=34(LC 12)  
 Max Uplift 2=490(LC 8), 6=490(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2225/1444, 3-4=-3110/2051, 4-5=-3110/2051, 5-6=-2225/1444  
 BOT CHORD 2-10=-1258/1975, 9-10=-1274/1991, 8-9=-1271/1991, 6-8=-1256/1975  
 WEBS 3-10=-189/326, 3-9=-746/1216, 4-9=-558/310, 5-9=-747/1216, 5-8=-188/326

**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=25ft; 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 4-0-0, Exterior(2) 4-0-0 to 8-2-15, Interior(1) 8-2-15 to 16-0-0, Exterior(2) 16-0-0 to 20-2-15, Interior(1) 20-2-15 to 20-10-8 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
- 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.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-5=-60, 5-7=-60, 2-6=-20  
 Concentrated Loads (lb)  
 Vert: 3=-67(F) 5=-67(F) 10=-30(F) 9=-18(F) 4=-47(F) 8=-30(F) 12=-47(F) 13=-47(F) 14=-47(F) 15=-47(F) 18=-18(F)  
 19=-18(F) 20=-18(F) 21=-18(F)



June 5, 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 20709A	Truss PJ1	Truss Type Jack-Open	Qty 5	Ply 1	149.2115.B.12x20CVP	137309825
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84 Components (Dunn), Dunn, NC - 28334,

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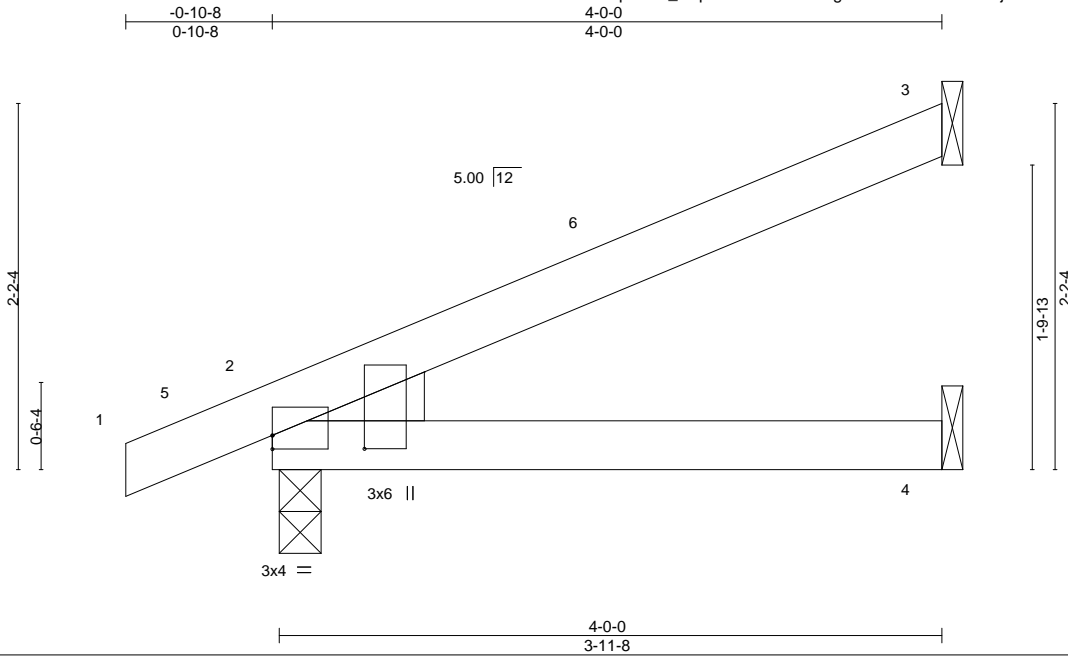


Plate Offsets (X,Y)--	[2:0-0-0,0-1-0], [2:0-0-15,0-6-10]
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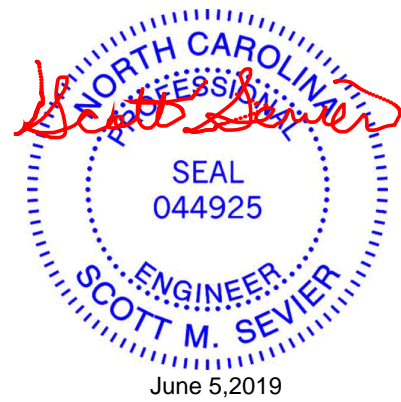
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.33	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(LL) 0.02 2-4 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.03 2-4 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) -0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 15 lb	FT = 20%

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

**REACTIONS.** (lb/size) 3=107/Mechanical, 2=220/0-3-0, 4=38/Mechanical  
 Max Horz 2=77(LC 12)  
 Max Uplift 3=65(LC 12), 2=62(LC 8), 4=12(LC 8)  
 Max Grav 3=107(LC 1), 2=220(LC 1), 4=76(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=25ft; 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 3-11-4 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
  - 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, 4.
  - 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.



Job 20709A	Truss PJ2	Truss Type Jack-Open Girder	Qty 2	Ply 1	149.2115.B.12x20CVP	137309826
					Job Reference (optional)	

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

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:02 2019 Page 1  
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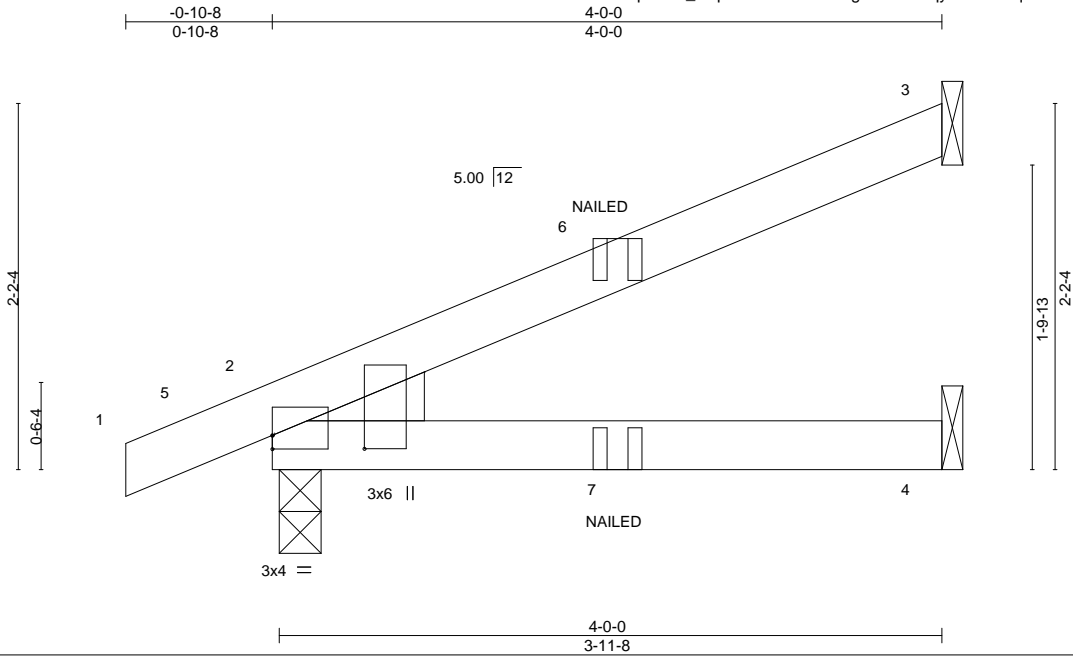


Plate Offsets (X,Y)--	[2:0-0-0,0-1-0], [2:0-0-15,0-6-10]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.39	Vert(LL) -0.02 2-4 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.27	Vert(CT) -0.03 2-4 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 15 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 3=127/Mechanical, 2=252/0-3-0, 4=50/Mechanical  
 Max Horz 2=77(LC 12)  
 Max Uplift 3=-76(LC 12), 2=-83(LC 8), 4=-18(LC 8)  
 Max Grav 3=127(LC 1), 2=252(LC 1), 4=92(LC 3)

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

**NOTES-**

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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 3-11-4 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.
- 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) 3, 4.
- 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.
- "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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 2-4=-20  
 Concentrated Loads (lb)  
 Vert: 6=-40(F) 7=-24(F)



June 5, 2019

Job 20709A	Truss PJ3	Truss Type Jack-Open Girder	Qty 2	Ply 1	149.2115.B.12x20CVP	137309827
84 Components (Dunn), Dunn, NC - 28334,					8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:03 2019 Page 1	
					Job Reference (optional)	

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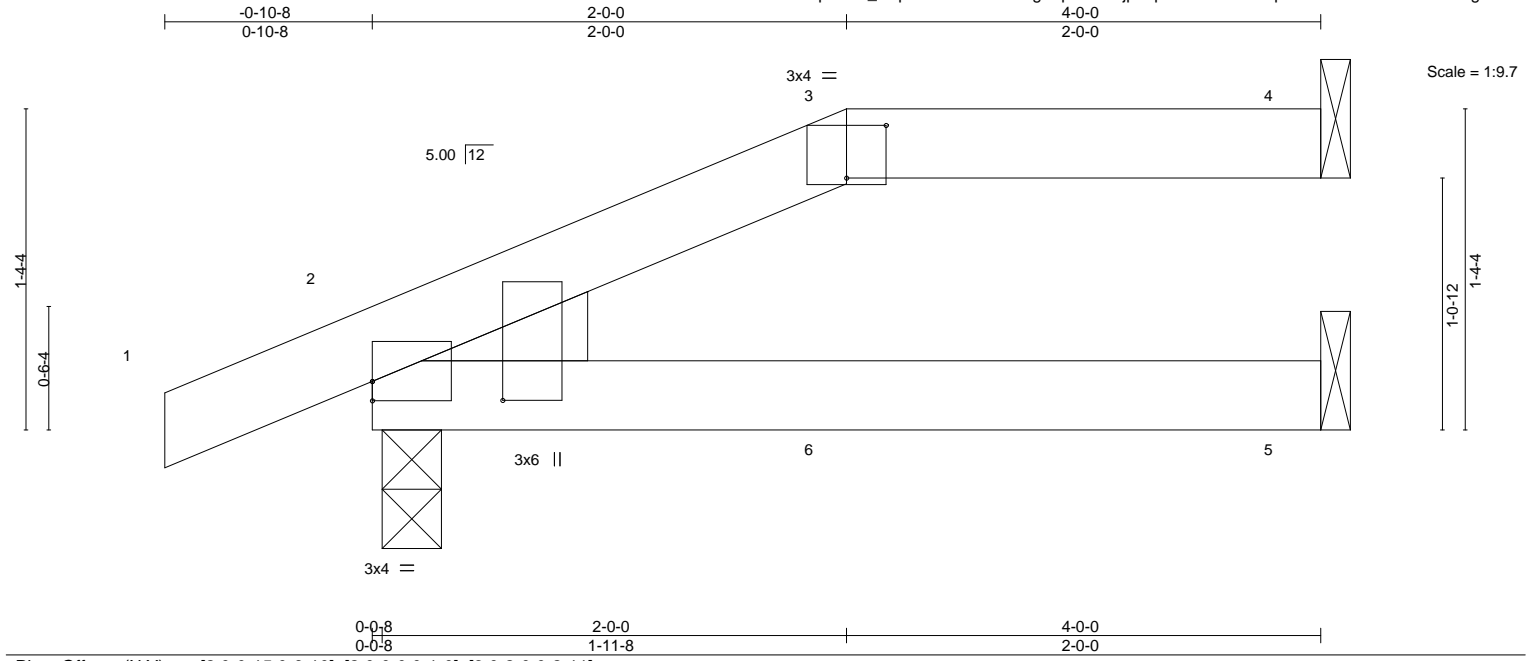


Plate Offsets (X, Y)--	[2:0-0-15,0-6-10], [2:0-0-0,0-1-0], [3:0-2-0,0-2-11]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.31	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.16	Vert(LL) 0.02 2-5 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Vert(CT) -0.02 2-5 >999 180		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Horz(CT) 0.02 4 n/a n/a		
				Weight: 15 lb	FT = 20%

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

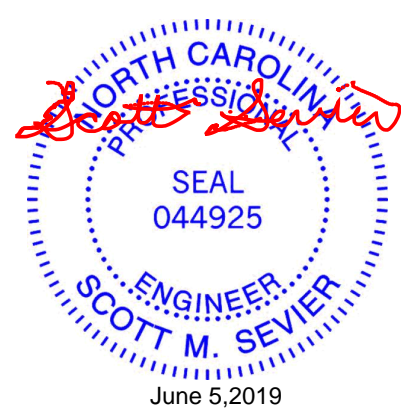
**REACTIONS.** (lb/size) 4=100/Mechanical, 2=220/0-3-0, 5=44/Mechanical  
 Max Horz 2=46(LC 12)  
 Max Uplift 4=47(LC 9), 2=80(LC 8), 5=17(LC 9)  
 Max Grav 4=100(LC 1), 2=220(LC 1), 5=71(LC 3)

**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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 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
  - 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) 4, 5.
  - 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.
  - 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) 32 lb down and 126 lb up at 2-0-0 on top chord, and 15 lb down and 41 lb up at 2-0-0 on bottom chord. 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-4=-60, 2-5=-20

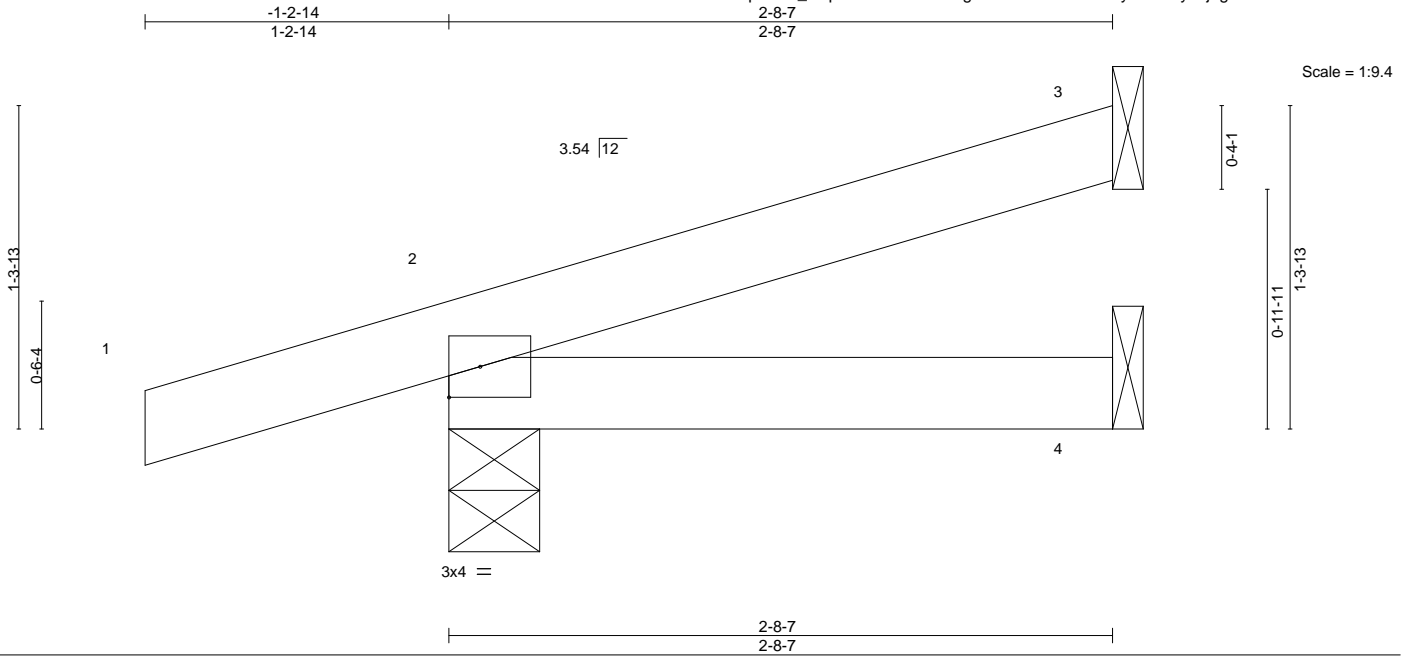




Job 20709A	Truss PJ5	Truss Type Jack-Open	Qty 2	Ply 1	149.2115.B.12x20CVP	137309829
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:04 2019 Page 1  
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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 0.39	Vert(LL)	0.01 2-4	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	0.01 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%

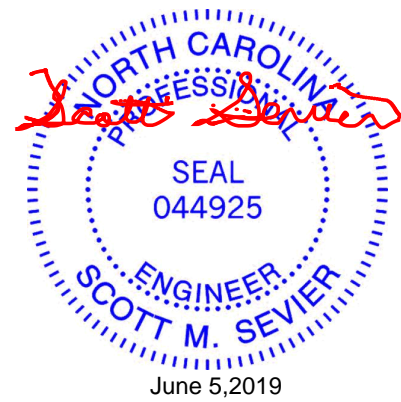
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=49/Mechanical, 2=208/0-4-7, 4=25/Mechanical  
 Max Horz 2=46(LC 8)  
 Max Uplift 3=-32(LC 12), 2=-105(LC 8), 4=-8(LC 8)  
 Max Grav 3=49(LC 1), 2=208(LC 1), 4=49(LC 3)

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

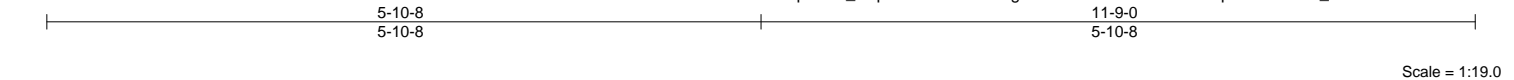
**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 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
- 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, 4.
- 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.

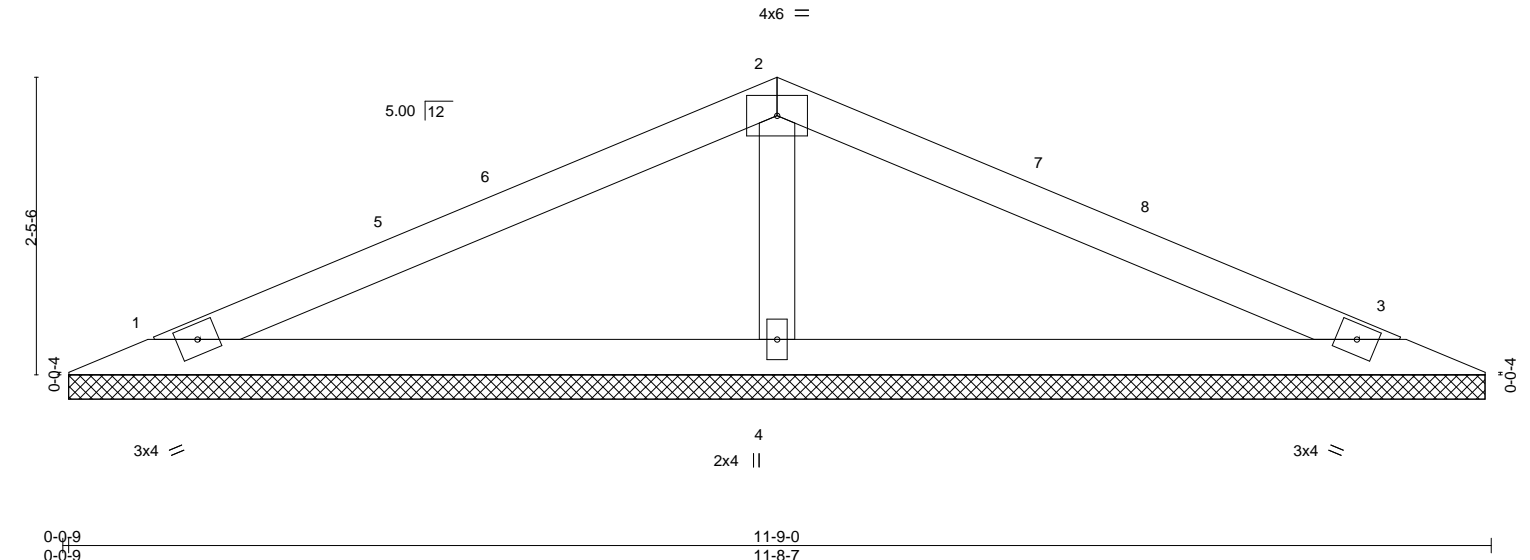


Job 20709A	Truss V1	Truss Type GABLE	Qty 1	Ply 1	149.2115.B.12x20CVP	137309830
84 Components (Dunn), Dunn, NC - 28334,					8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:05 2019 Page 1	
					Job Reference (optional)	

ID:u??Rpr1fY8\_Hap73zCKv?WzeKCg-JCQVgXoiFQFc2rnUWAYpbAC81J?LP\_X4PCQHS?z9eLe



Scale = 1:19.0



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 0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 37 lb	FT = 20%

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

**REACTIONS.** (lb/size) 1=180/11-7-13, 3=180/11-7-13, 4=459/11-7-13  
 Max Horz 1=36(LC 12)  
 Max Uplift 1=-38(LC 12), 3=-44(LC 13), 4=-24(LC 12)  
 Max Grav 1=185(LC 23), 3=185(LC 24), 4=459(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-4=-309/132

**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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 5-10-8, Exterior(2) 5-10-8 to 8-10-8, Interior(1) 8-10-8 to 10-11-15 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, 4.



June 5, 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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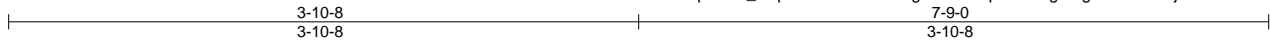


Job 20709A	Truss V2	Truss Type Valley	Qty 1	Ply 1	149.2115.B.12x20CVP	137309831
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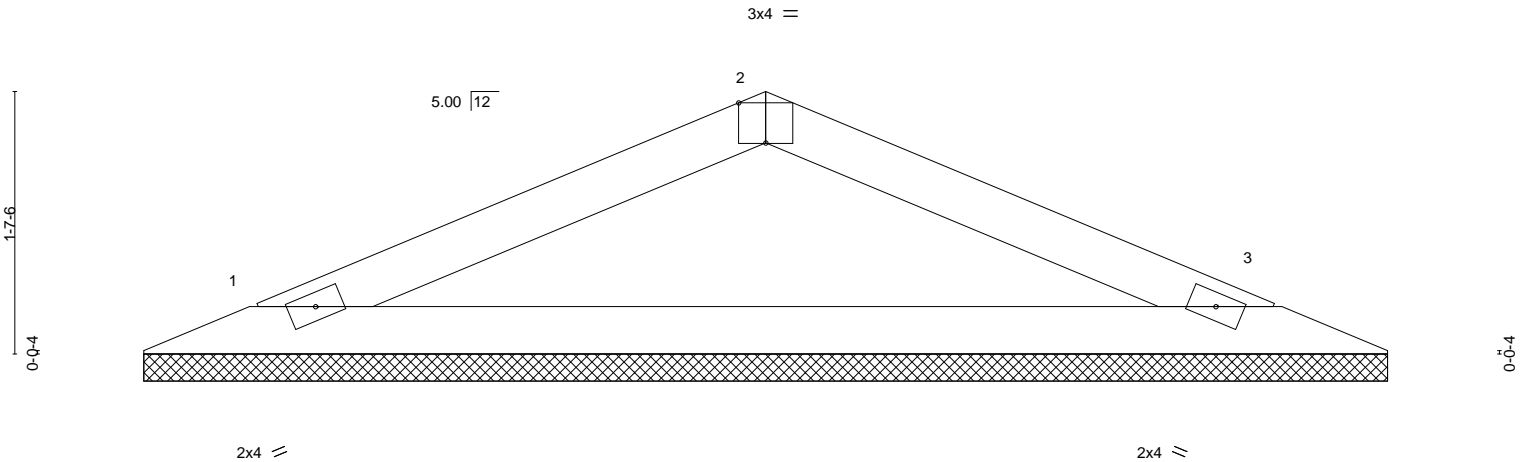
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:06 2019 Page 1

ID:u??Rpr1fY8\_Hap73zCKv?WzeKCG-nOzuTHpK0kNTg?Mg3u328OIMrjHX8SoDdsAr\_Rz9eLd



Scale = 1:14.2



0-0-10	7-9-0				
0-0-10	7-8-6				
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 0.18	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.52	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: 21 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 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=250/7-7-13, 3=250/7-7-13  
 Max Horz 1=22(LC 12)  
 Max Uplift 1=-30(LC 12), 3=-30(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-271/174, 2-3=-271/174

- 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=25ft; 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) 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, 3.



June 5, 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 20709A	Truss V3	Truss Type Valley	Qty 1	Ply 1	149.2115.B.12x20CVP	137309832
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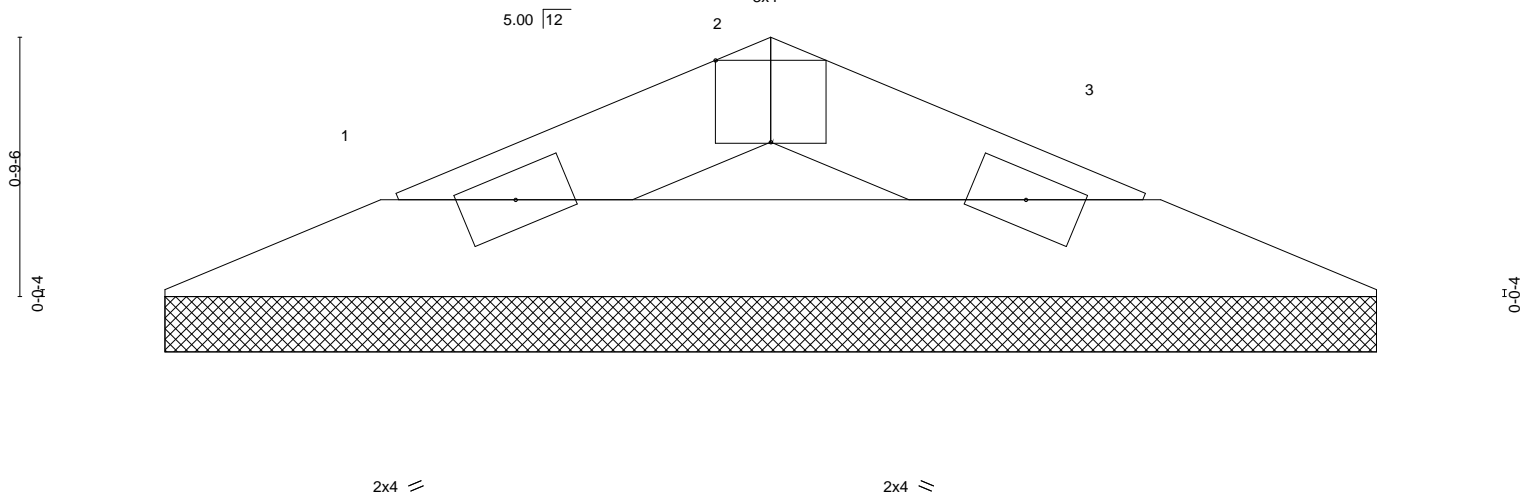
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:06 2019 Page 1

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Scale = 1:6.9



0-0-10	3-9-0
0-0-10	3-8-6

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 0.04	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.10	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: 9 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-9-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=90/3-7-13, 3=90/3-7-13  
 Max Horz 1=8(LC 16)  
 Max Uplift 1=-11(LC 12), 3=-11(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=25ft; 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.



June 5, 2019

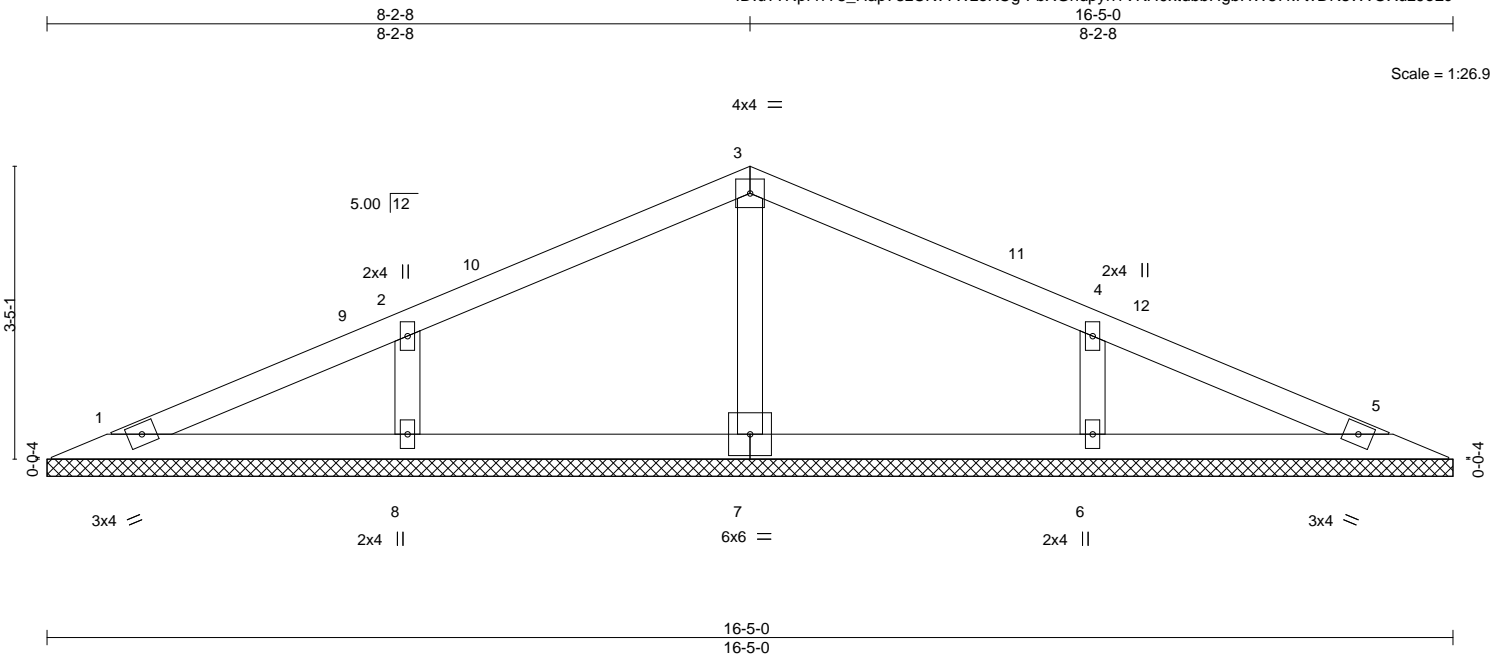
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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 20709A	Truss V5	Truss Type GABLE	Qty 1	Ply 1	149.2115.B.12x20CVP	137309833
84 Components (Dunn), Dunn, NC - 28334,					8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:07 2019 Page 1	
					ID:u??Rpr1fY8_Hap73zCKv?WzeKCg-FbXGhdpy1VKH9xtdbbHgbHW87k7vDNsWvOXuz9eLc	
					Job Reference (optional)	



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 0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	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  
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 16-5-0.  
(lb) - Max Horz 1=52(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=277(LC 1), 8=353(LC 23), 6=353(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-266/145, 4-6=-266/145

**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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 8-2-8, Exterior(2) 8-2-8 to 11-2-8, Interior(1) 11-2-8 to 15-7-15 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, 8, 6.



June 5, 2019

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

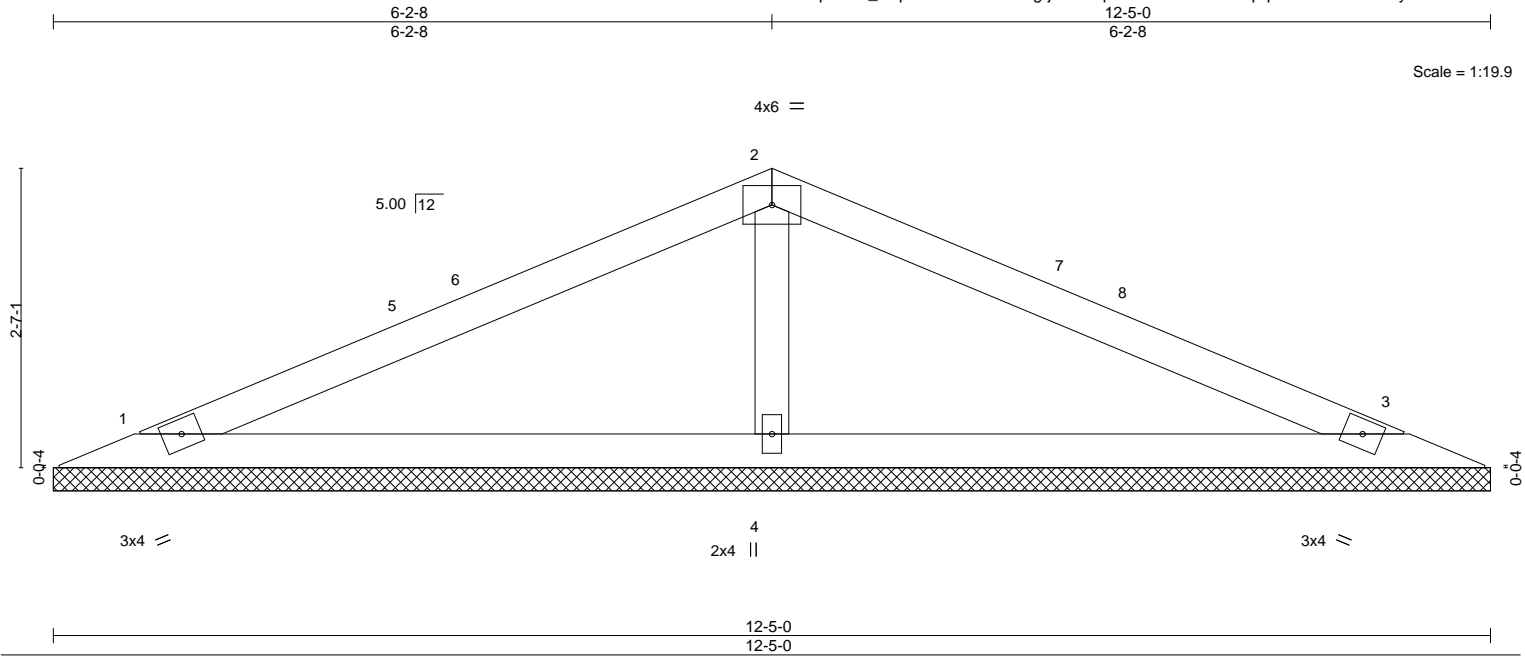
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 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 20709A	Truss V6	Truss Type GABLE	Qty 1	Ply 1	149.2115.B.12x20CVP	137309834
84 Components (Dunn), Dunn, NC - 28334,					Job Reference (optional)	

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:08 2019 Page 1  
 ID:u??Rpr1fy8\_Hap73zCKv?WzeKCg-jn5euzqaXLdBvIW3BJ6WDpqeQX1WcLBW5Afy3Kz9eLb



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)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 39 lb	FT = 20%

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

**REACTIONS.** (lb/size) 1=192/12-5-0, 3=192/12-5-0, 4=488/12-5-0  
 Max Horz 1=38(LC 12)  
 Max Uplift 1=-40(LC 12), 3=-47(LC 13), 4=-26(LC 12)  
 Max Grav 1=197(LC 23), 3=197(LC 24), 4=488(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-4=-329/135

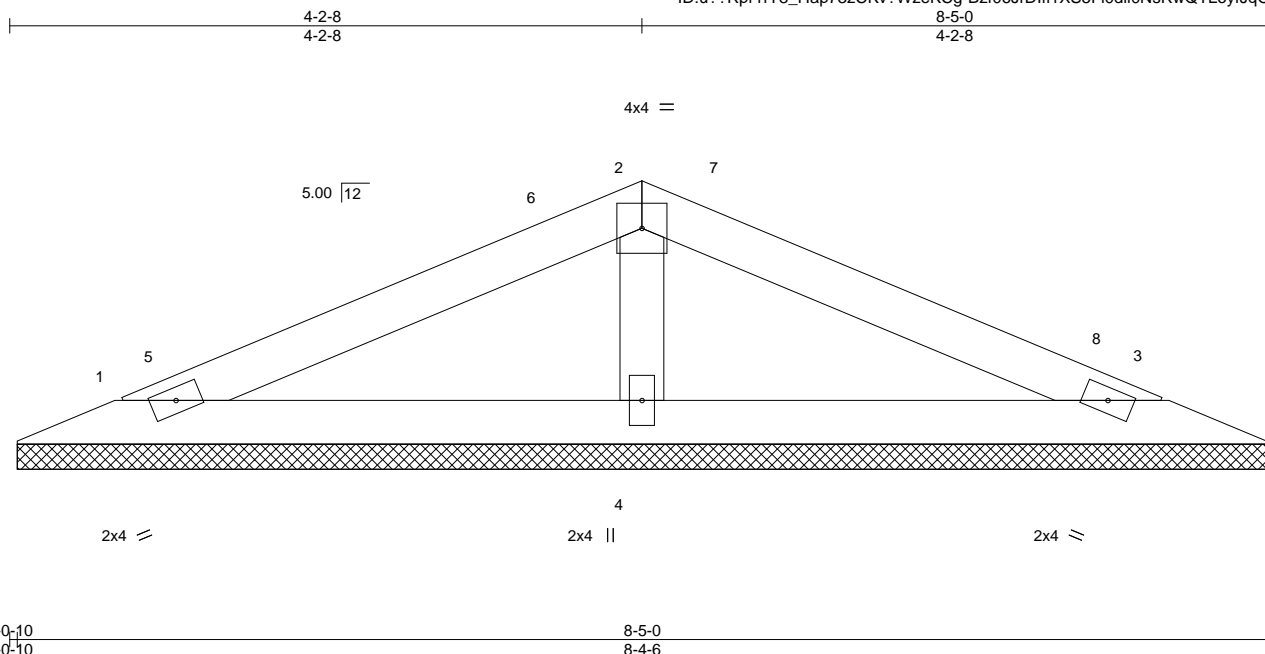
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 6-2-8, Exterior(2) 6-2-8 to 9-2-8, Interior(1) 9-2-8 to 11-7-15 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, 4.



Job 20709A	Truss V7	Truss Type Valley	Qty 1	Ply 1	149.2115.B.12x20CVP	137309835
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:09 2019 Page 1  
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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 0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 25 lb	FT = 20%

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

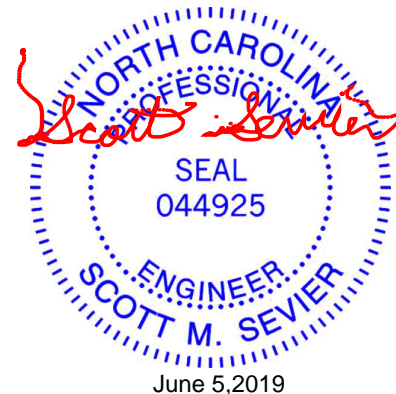
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=136/8-3-13, 3=136/8-3-13, 4=280/8-3-13  
 Max Horz 1=24(LC 12)  
 Max Uplift 1=-32(LC 12), 3=-36(LC 13), 4=-4(LC 12)

**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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 4-2-8, Exterior(2) 4-2-8 to 7-2-8, Interior(1) 7-2-8 to 7-7-15 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, 4.



**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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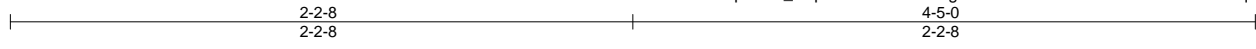


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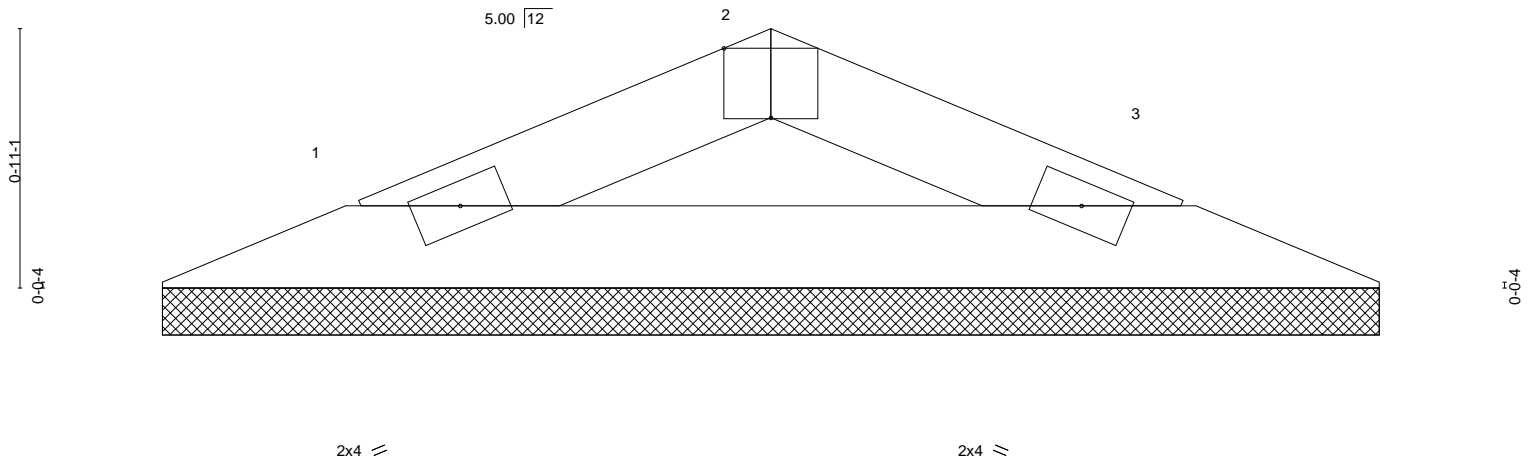
Job 20709A	Truss V8	Truss Type Valley	Qty 1	Ply 1	149.2115.B.12x20CVP	137309836
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:09 2019 Page 1  
ID:u??Rpr1fY8\_Hap73zCKv?WzeKCg-Bzf06JrDlff1XS5F10dl0NvwwPcLoYfJqOVbmz9eLa



Scale = 1:8.2



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

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 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 11 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 1=116/4-3-13, 3=116/4-3-13  
Max Horz 1=10(LC 12)  
Max Uplift 1=-14(LC 12), 3=-14(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=25ft; 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.



June 5, 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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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932



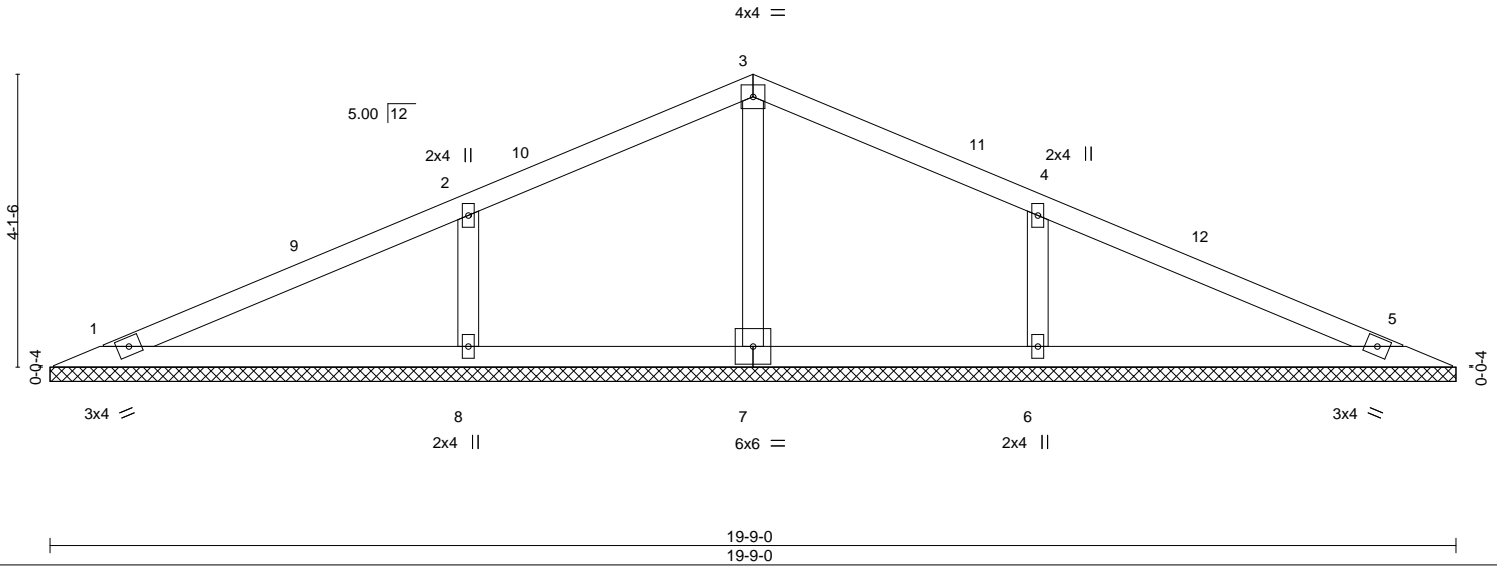
Job 20709A	Truss VP1	Truss Type GABLE	Qty 1	Ply 1	149.2115.B.12x20CVP	137309837
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84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:10 2019 Page 1  
ID:u??Rpr1fY8\_Hap73zCKv?WzeKCg-f9DOJfsr3ytu8cfSlk8\_IEv?OKkK4EipYU827Cz9eLZ



Scale = 1:32.4



<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 0.34	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 69 lb	FT = 20%

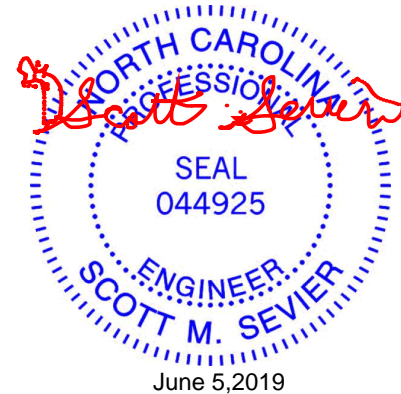
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**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 19-9-0.  
(lb) - Max Horz 1=64(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=124(LC 12), 6=123(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=451(LC 23), 6=451(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-332/179, 4-6=-332/179

- 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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 9-10-8, Exterior(2) 9-10-8 to 12-10-8, Interior(1) 12-10-8 to 18-11-15 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
  - 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) 8=124, 6=123.

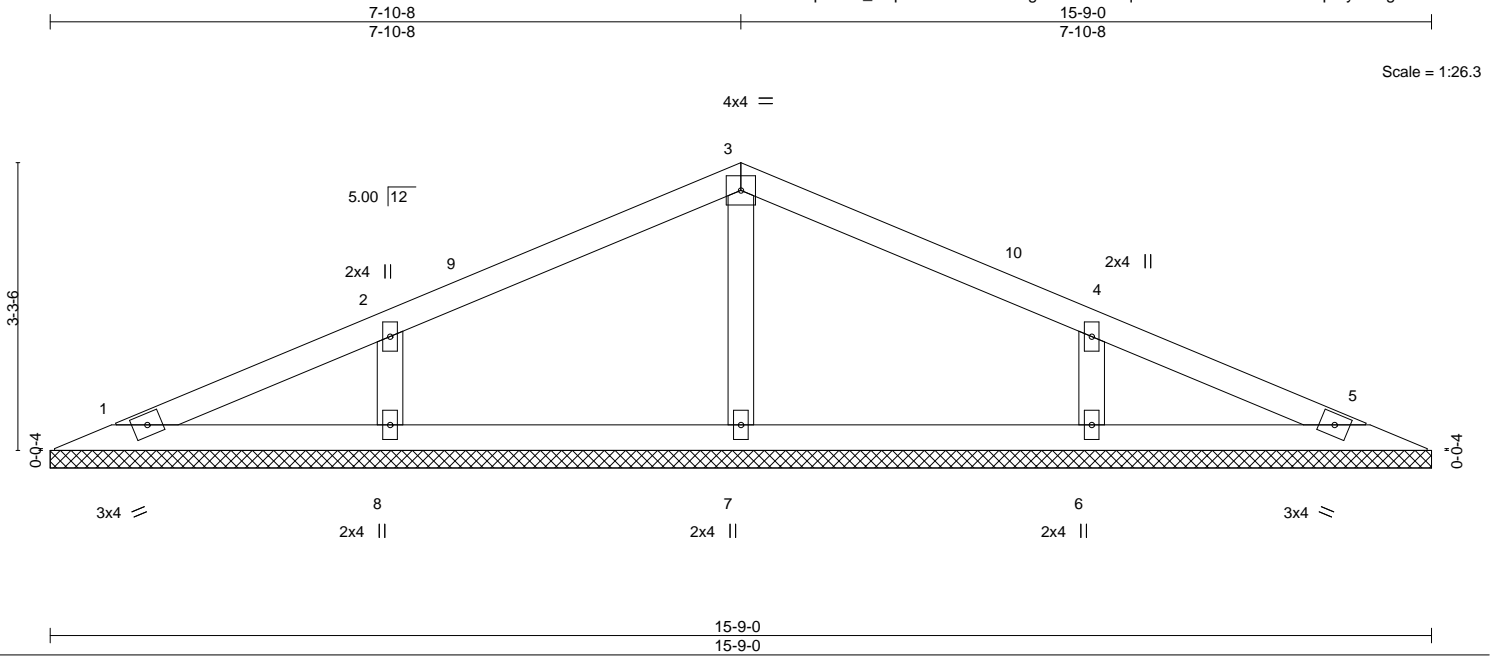


**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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 20709A	Truss VP2	Truss Type GABLE	Qty 1	Ply 1	149.2115.B.12x20CVP	137309838
84 Components (Dunn), Dunn, NC - 28334,					Job Reference (optional)	

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:11 2019 Page 1  
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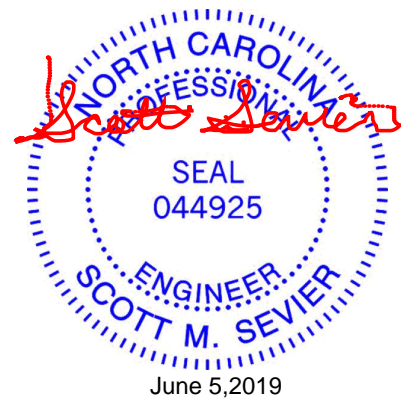
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 53 lb	FT = 20%

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

**REACTIONS.** All bearings 15-9-0.  
 (lb) - Max Horz 1=50(LC 17)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=284(LC 1), 8=337(LC 23), 6=337(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-256/140, 4-6=-256/140

- 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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-9-1 to 3-10-8, Interior(1) 3-10-8 to 7-10-8, Exterior(2) 7-10-8 to 10-10-8, Interior(1) 10-10-8 to 14-11-15 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
  - 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, 8, 6.



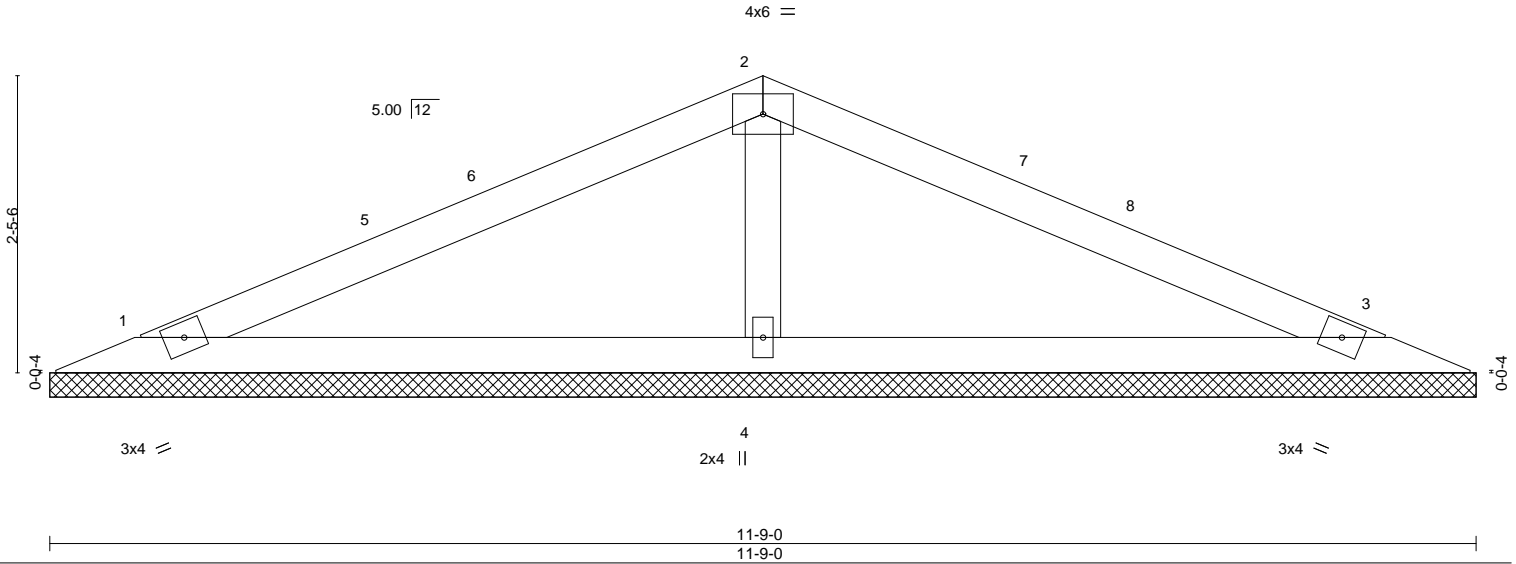
Job	Truss	Truss Type	Qty	Ply	149.2115.B.12x20CVP	137309839
20709A	VP3	GABLE	1	1		

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

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:12 2019 Page 1  
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Scale = 1:19.0



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 0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 37 lb	FT = 20%

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

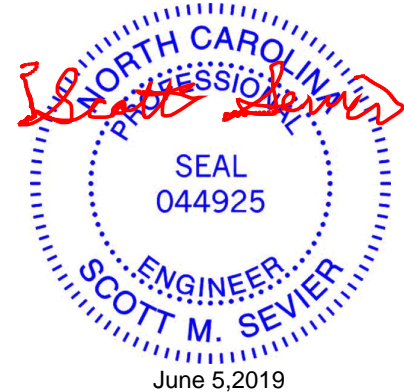
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=180/11-9-0, 3=180/11-9-0, 4=459/11-9-0  
 Max Horz 1=36(LC 12)  
 Max Uplift 1=-38(LC 12), 3=-44(LC 13), 4=-24(LC 12)  
 Max Grav 1=185(LC 23), 3=185(LC 24), 4=459(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-4=-309/132

**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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 5-10-8, Exterior(2) 5-10-8 to 8-10-8, Interior(1) 8-10-8 to 10-11-15 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
- 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, 4.



**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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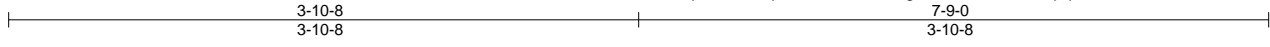
Job 20709A	Truss VP4	Truss Type Valley	Qty 1	Ply 1	149.2115.B.12x20CVP	137309840
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84 Components (Dunn), Dunn, NC - 28334,

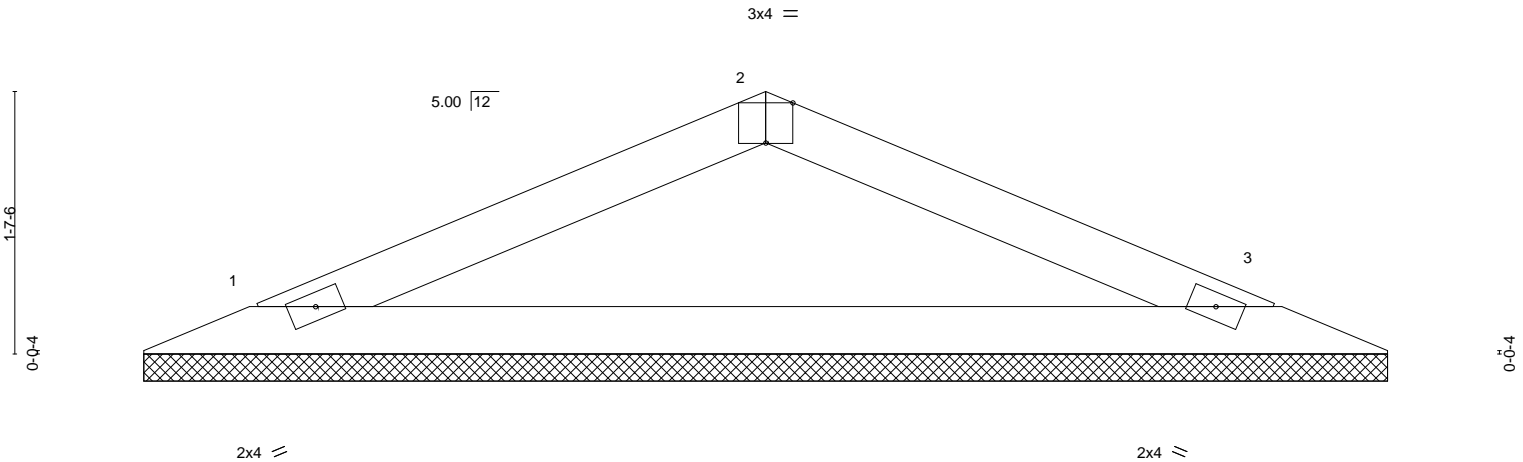
8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:12 2019 Page 1

ID:u??Rpr1fY8\_Hap73zCKv?WzeKCg-cYL9kKt5ba7cOwpqQ9ASNI?OK8KxY9H60od9C5z9eLX

Job Reference (optional)



Scale = 1:14.2



0-0-10	7-9-0				
0-0-10	7-8-6				
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 0.18	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.52	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: 21 lb	FT = 20%

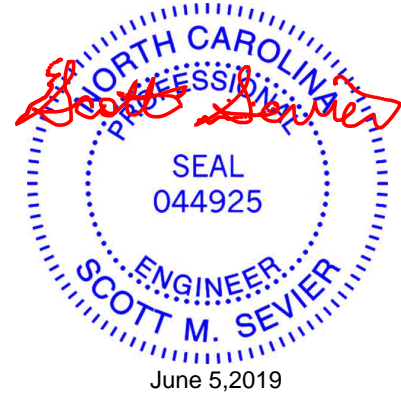
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2

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

**REACTIONS.** (lb/size) 1=250/7-7-13, 3=250/7-7-13  
 Max Horz 1=22(LC 12)  
 Max Uplift 1=-30(LC 12), 3=-30(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-271/174, 2-3=-271/174

- 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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 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) 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, 3.



**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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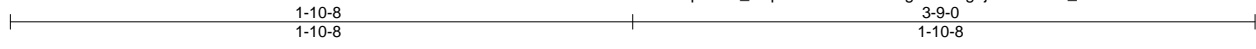
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Job 20709A	Truss VP5	Truss Type Valley	Qty 1	Ply 1	149.2115.B.12x20CVP	137309841
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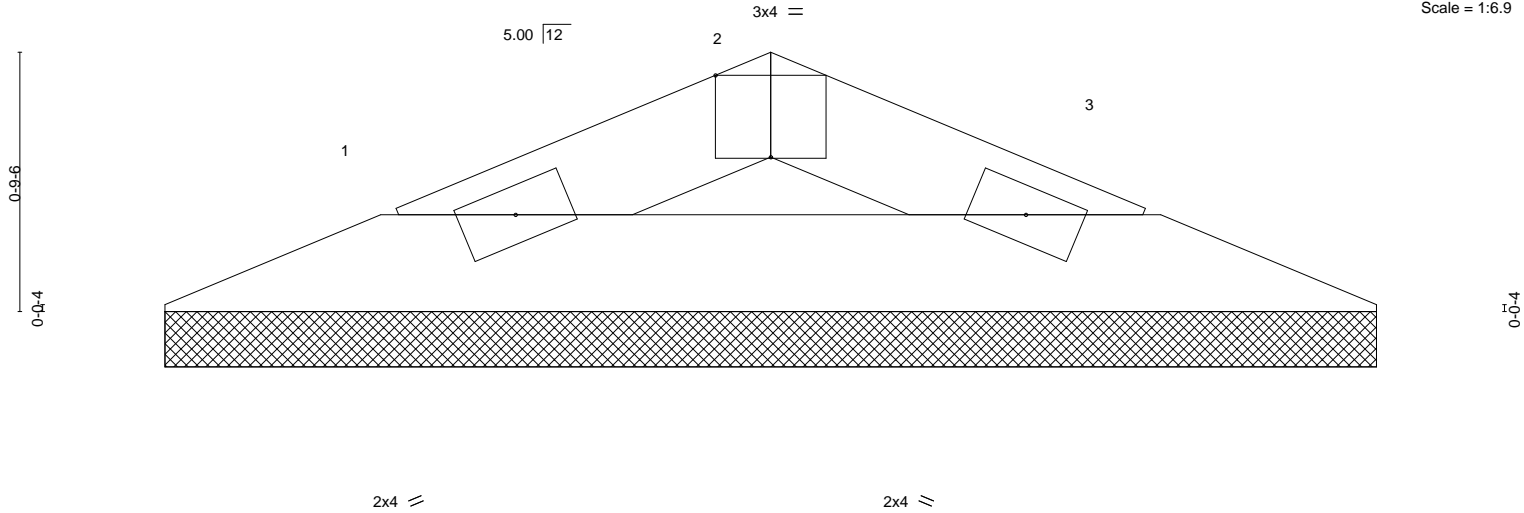
84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Tue Jun 4 14:08:13 2019 Page 1

ID:u??Rpr1fY8\_Hap73zCKv?WzeKCg-4kvXxgjiMtFT04O1\_shhwsXbEYnhHcXFESMikXz9eLW



Scale = 1:6.9



0-0-10	3-9-0
0-0-10	3-8-6

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 0.04	Vert(LL) n/a - n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.10	Vert(CT) n/a - n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 3 n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 9 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-9-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=90/3-7-13, 3=90/3-7-13  
Max Horz 1=-8(LC 13)  
Max Uplift 1=-11(LC 12), 3=-11(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=25ft; 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.



June 5, 2019

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

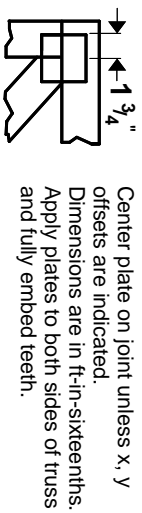
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



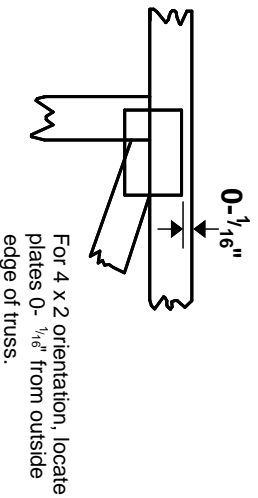
818 Soundside Road  
Edenton, NC 27932

# Symbols

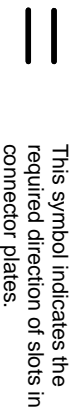
## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



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

## PLATE SIZE

4 X 4

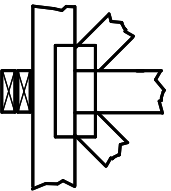
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

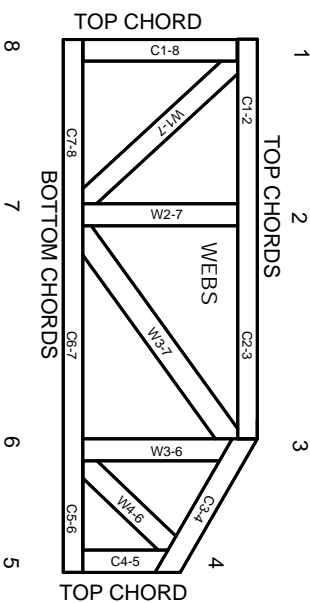


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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