

RE: Winston C Vault Bonus
 Winston vault Bonus

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Customer: D.R. HORTON - RAL - 055 Project Name: Winston C Vault Bonus
 Lot/Block: Model: WINSTON / C Vault Bonus
 Address: Subdivision:
 City: FUQUAY-VARINA State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

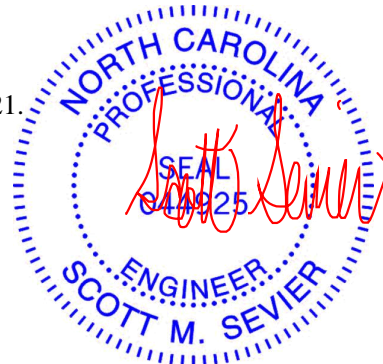
Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.5
 Wind Code: ASCE 7-10 Wind Speed: 130 mph
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 13 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I47936825	A1	9/17/2021
2	I47936826	A2	9/17/2021
3	I47936827	A3	9/17/2021
4	I47936828	A4	9/17/2021
5	I47936829	A4A	9/17/2021
6	I47936830	A4E	9/17/2021
7	I47936831	AE	9/17/2021
8	I47936832	B	9/17/2021
9	I47936833	BE	9/17/2021
10	I47936834	BGR	9/17/2021
11	I47936835	C	9/17/2021
12	I47936836	CE	9/17/2021
13	I47936837	D	9/17/2021

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.
 Truss Design Engineer's Name: Sevier, Scott
 My license renewal date for the state of North Carolina is December 31, 2021.
 North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.



September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	147936825
Winston C Vault Bonus	A1	Common	3	1	Job Reference (optional)	

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

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:41:51 2021 Page 1
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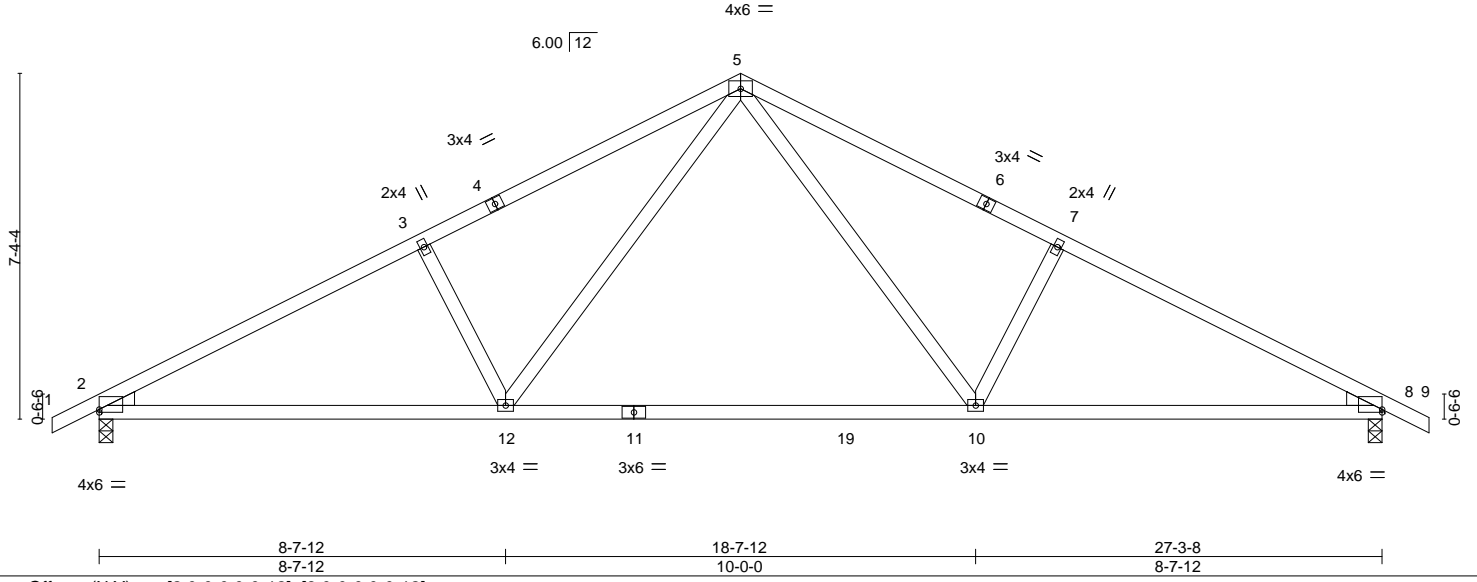


Plate Offsets (X,Y)-- [2:0-0-0,0-0-12], [8:0-0-0,0-0-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.62	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.93	Vert(LL) -0.39 10-12 >840 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.28	Vert(CT) -0.62 10-12 >530 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.06 8 n/a n/a		
	Code IRC2015/TPI2014			Weight: 128 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except*
 8-11: 2x4 SP No.1
 WEBS 2x4 SP No.3
 WEDGE
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 3-6-1 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
 Max Horz 2=122(LC 12)
 Max Uplift 2=-149(LC 12), 8=-149(LC 13)
 Max Grav 2=1152(LC 1), 8=1152(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1872/467, 3-5=-1694/505, 5-7=-1695/504, 7-8=-1873/467
 BOT CHORD 2-12=-308/1595, 10-12=-105/1056, 8-10=-310/1596
 WEBS 5-10=-152/681, 7-10=-392/266, 5-12=-153/677, 3-12=-393/265

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) 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=149, 8=149.



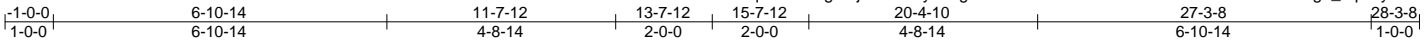
September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	147936826
Winston C Vault Bonus	A2	ROOF TRUSS	5	1		

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

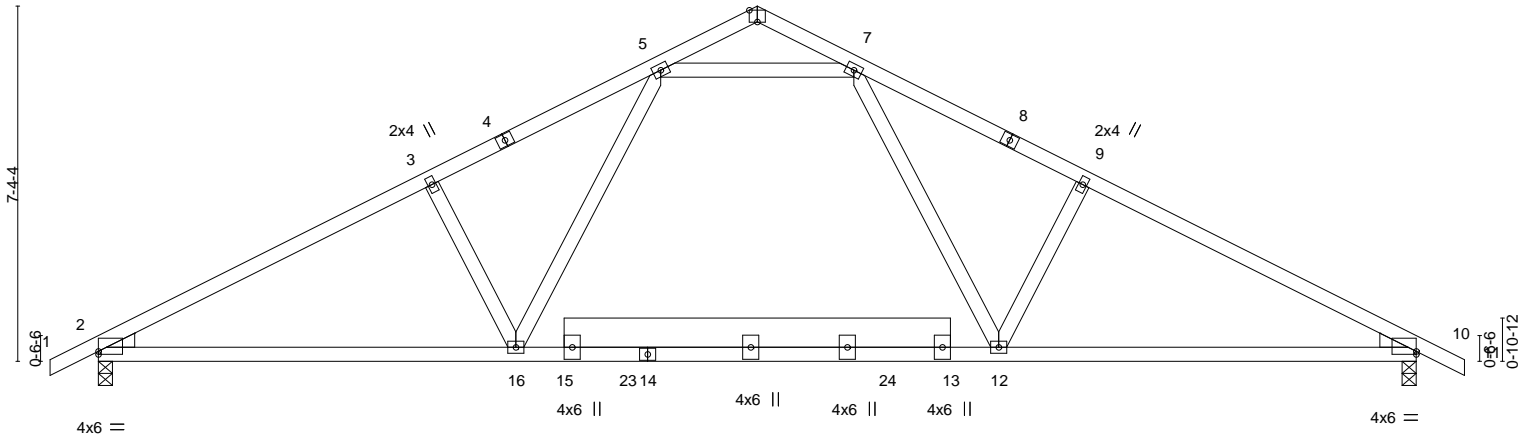
8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:41:52 2021 Page 1

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6.00 |12

Scale: 1/4"=1'



	8-7-12	18-7-12	27-3-8
	8-7-12	10-0-0	8-7-12

Plate Offsets (X, Y)-- [2:0-0-0,0-0-12], [6:0-2-0,Edge], [10:0-0-0,0-0-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.56	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.78	Vert(LL) -0.20 16-19 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.44	Vert(CT) -0.31 16-19 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.05 10 n/a n/a		
	Code IRC2015/TPI2014			Weight: 153 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except* 13-15: 2x8 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
WEDGE Left: 2x4 SP No.3 , Right: 2x4 SP No.3	

REACTIONS.
(size) 2=0-3-8, 10=0-3-8
Max Horz 2=122(LC 12)
Max Uplift 2=-149(LC 12), 10=-149(LC 13)
Max Grav 2=1152(LC 1), 10=1152(LC 1)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1846/462, 3-5=-1668/489, 7-9=-1668/489, 9-10=-1846/462
BOT CHORD 2-16=-299/1568, 12-16=-157/1191, 10-12=-302/1568
WEBS 7-12=-103/596, 9-12=-394/235, 5-16=-103/596, 3-16=-394/235, 5-7=-1123/424

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) All plates are 3x4 MT20 unless otherwise indicated.
 - 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, with BCDL = 10.0psf.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=149, 10=149.
 - 7) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



September 17, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY

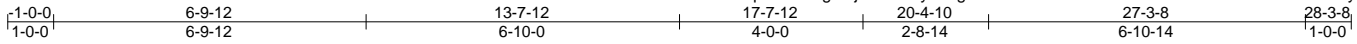
 A MiTek Affiliate

818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	147936827
Winston C Vault Bonus	A3	ROOF TRUSS	1	1		

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

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:41:54 2021 Page 1
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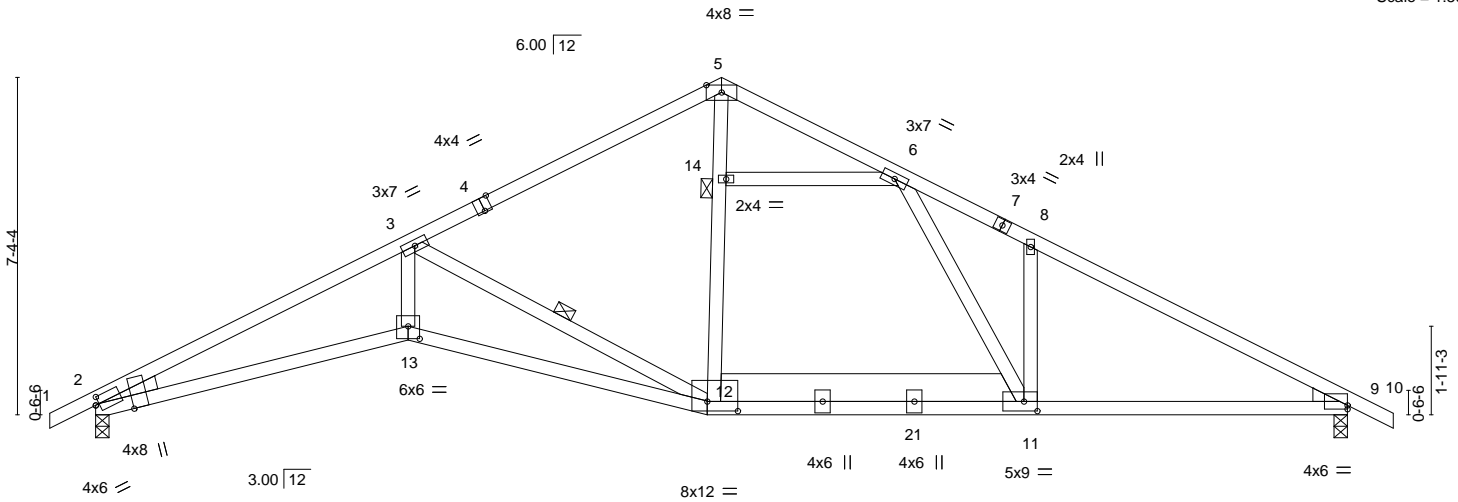


Plate Offsets (X,Y)--	[2:0-3-4,Edge], [2:0-1-0,0-2-0], [4:0-2-0,Edge], [9:0-0-0,0-1-0], [11:0-3-8,0-2-8], [12:0-8-0,0-2-8], [13:0-3-0,0-3-4]
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LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.94	Vert(LL) 0.33 11-20 >985 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.93	Vert(CT) -0.56 11-20 >589 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.72	Horz(CT) 0.15 9 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 156 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except* 2-13: 2x4 SP No.1, 11-12: 2x8 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 5-12: 2x4 SP DSS	WEBS 1 Row at midpt 3-12
WEDGE Left: 2x4 SP No.3, Right: 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 14

REACTIONS.	(size) 2=0-3-8, 9=0-3-8
	Max Horz 2=122(LC 12)
	Max Uplift 2=149(LC 12), 9=149(LC 13)
	Max Grav 2=1152(LC 1), 9=1152(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3232/721, 3-5=-1386/406, 5-6=-987/264, 6-8=-1847/579, 8-9=-1805/422
BOT CHORD	2-13=-553/2902, 12-13=-545/2875, 11-12=-164/1272, 9-11=-270/1537
WEBS	3-13=-155/1321, 3-12=-1842/469, 12-14=-56/568, 5-14=-65/586, 6-11=-223/596, 8-11=-519/318, 6-14=-402/172

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=149.
 - 7) One H2.5A Simpson Strong-Tie 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.
 - 8) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
 A MiTek Affiliate

818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	147936829
Winston C Vault Bonus	A4A	ROOF TRUSS	4	1		

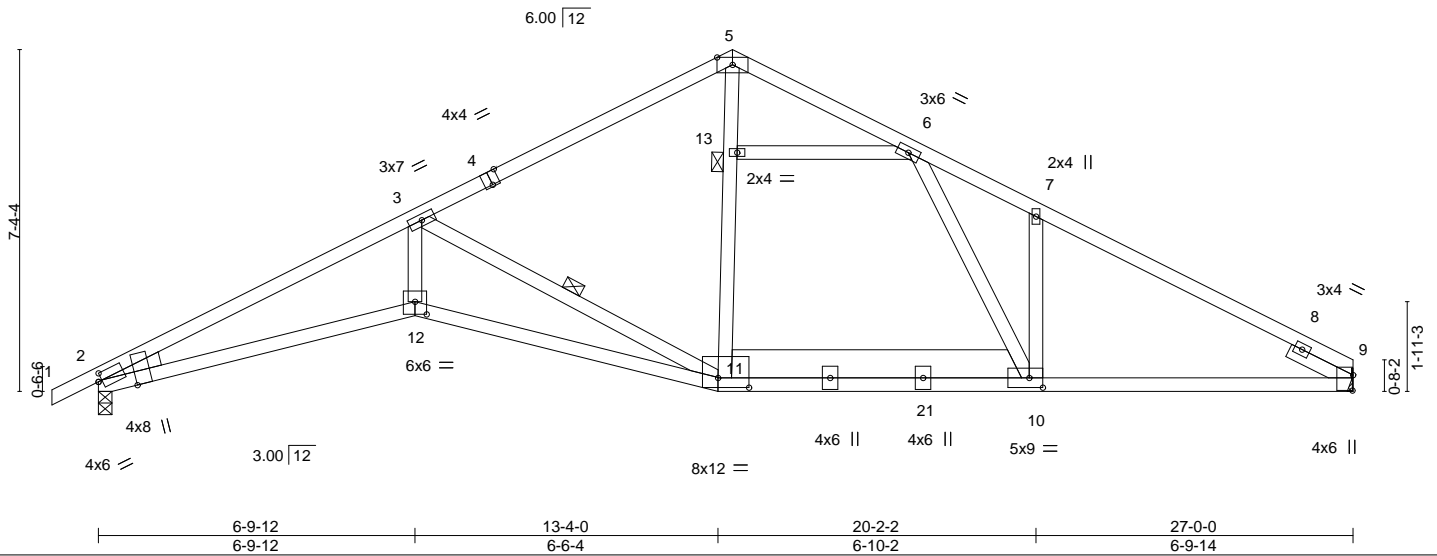
84 Components (Dunn), Dunn, NC - 28334,

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4x8 =

Scale = 1:49.6



Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	147936830
Winston C Vault Bonus	A4E	GABLE	1	1	Job Reference (optional)	

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

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:41:58 2021 Page 1
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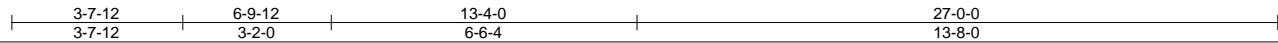
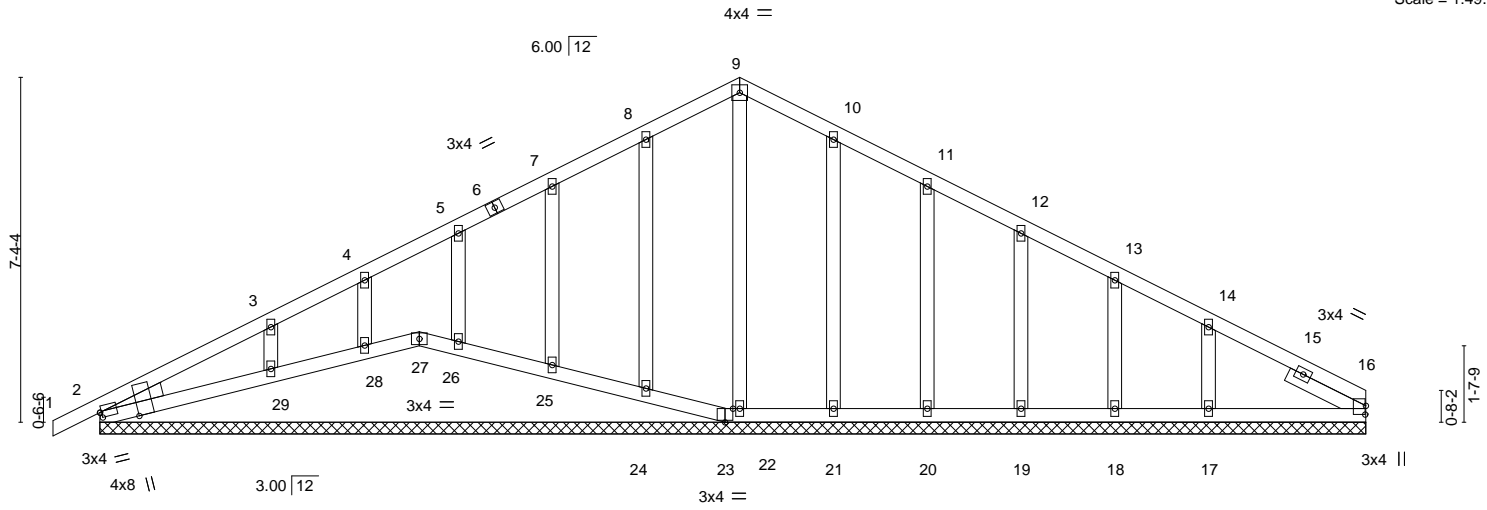


Plate Offsets (X, Y)-- [2:0-3-4,Edge], [2:0-0-6,0-1-6], [16:0-2-4,0-0-3], [23:0-2-0,Edge]

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 0.13	Vert(LL)	-0.00	1	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	16	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 152 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3	
SLIDER Right 2x4 SP No.3 1-9-14	

REACTIONS. All bearings 27-0-0.
 (lb) - Max Horz 2=127(LC 12)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 23, 24, 25, 26, 28, 21, 20, 19, 18, 17, 29
 Max Grav All reactions 250 lb or less at joint(s) 16, 2, 27, 23, 22, 24, 25, 26, 28, 21, 20, 19, 18 except 17=262(LC 24), 29=281(LC 23)

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 Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) 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) 23, 24, 25, 26, 28, 29.
 - 10) N/A
 - 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 27, 24, 25, 26, 28, 29.



September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	147936831
Winston C Vault Bonus	AE	GABLE	1	1	Job Reference (optional)	

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

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:42:00 2021 Page 1
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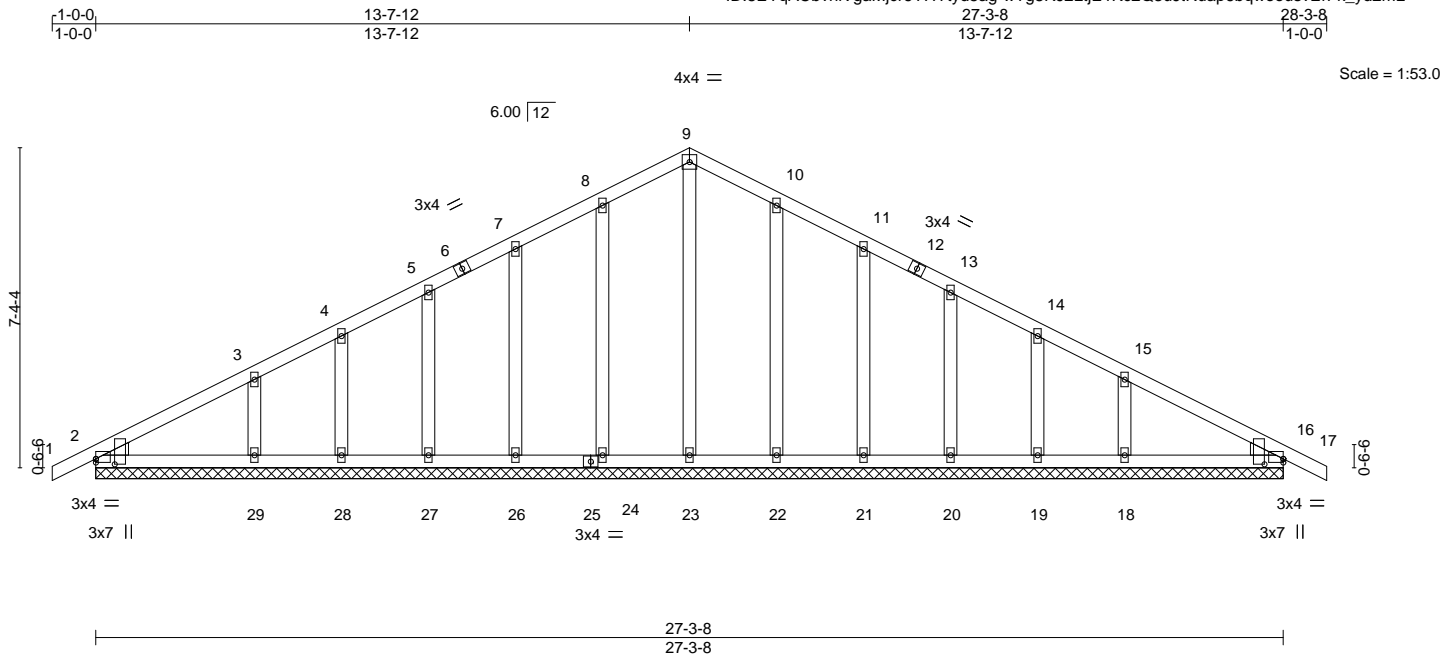


Plate Offsets (X, Y)--	[2:0-0-0,0-1-0], [2:0-1-8,0-5-3], [16:Edge,0-1-0], [16:0-1-8,0-5-3]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) 0.00 17 n/r 120	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) 0.01 17 n/r 90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.12	Horz(CT) 0.01 16 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 158 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
 OTHERS 2x4 SP No.3
 WEDGE
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

REACTIONS. All bearings 27-3-8.
 (lb) - Max Horz 2=122(LC 16)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 24, 26, 27, 28, 29, 22, 21, 20, 19, 18
 Max Grav All reactions 250 lb or less at joint(s) 2, 16, 23, 24, 26, 27, 28, 22, 21, 20, 19 except 29=280(LC 23), 18=280(LC 24)

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

NOTES-
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 3) 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.



September 17, 2021

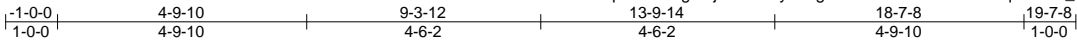
Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	I47936832
Winston C Vault Bonus	B	Common	6	1	Job Reference (optional)	

84 Components (Dunn),

Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:42:01 2021 Page 1

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4x4 =

Scale = 1:44.4

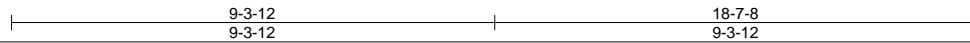
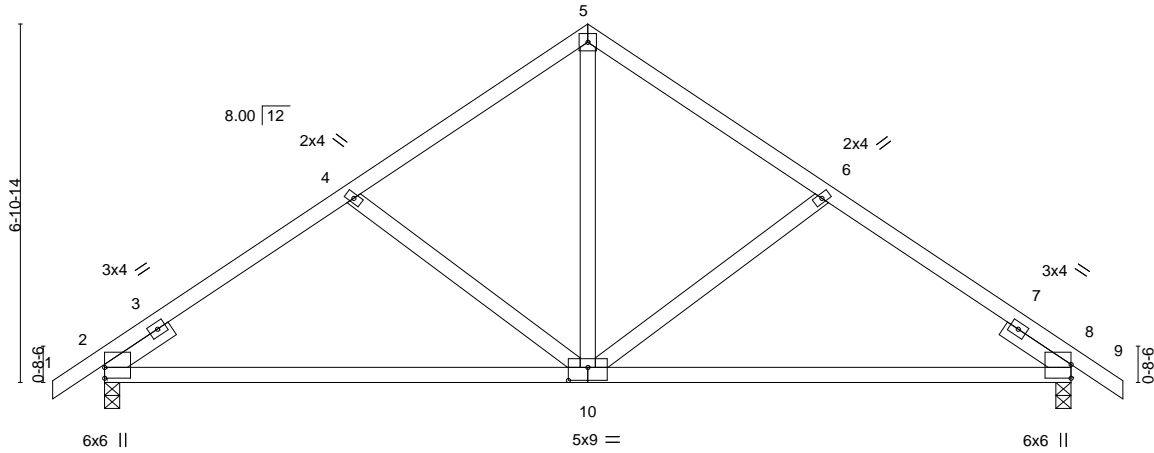


Plate Offsets (X,Y)--	[10:0-4-8,0-3-0]							
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	Vert(LL)	-0.10 10-17	>999	240	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.71	Vert(CT)	-0.21 10-17	>999	180		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.20	Horz(CT)	0.02 8	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS					Weight: 95 lb	FT = 20%
	Code IRC2015/TPI2014							

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

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

REACTIONS. (size) 2=0-3-8, 8=0-3-8
 Max Horz 2=-170(LC 10)
 Max Uplift 2=-100(LC 12), 8=-100(LC 13)
 Max Grav 2=805(LC 1), 8=805(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-839/204, 4-5=-745/182, 5-6=-745/182, 6-8=-839/204
 BOT CHORD 2-10=-130/779, 8-10=-73/746
 WEBS 5-10=-77/520, 6-10=-279/182, 4-10=-279/182

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) 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 H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.



September 17, 2021

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</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 ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p>TRENCO</p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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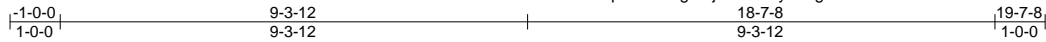
Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	147936833
Winston C Vault Bonus	BE	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn),

Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:42:03 2021 Page 1

ID:8EYqACbvnlVgaMjcr6YHYtyd5ag-K2MG4L4D9eccB4n?k0sa3WBKlosyr0albC3vLJyd2ml



3x4 =

Scale = 1:45.9

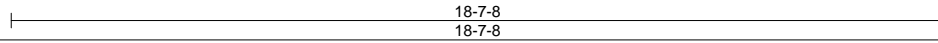
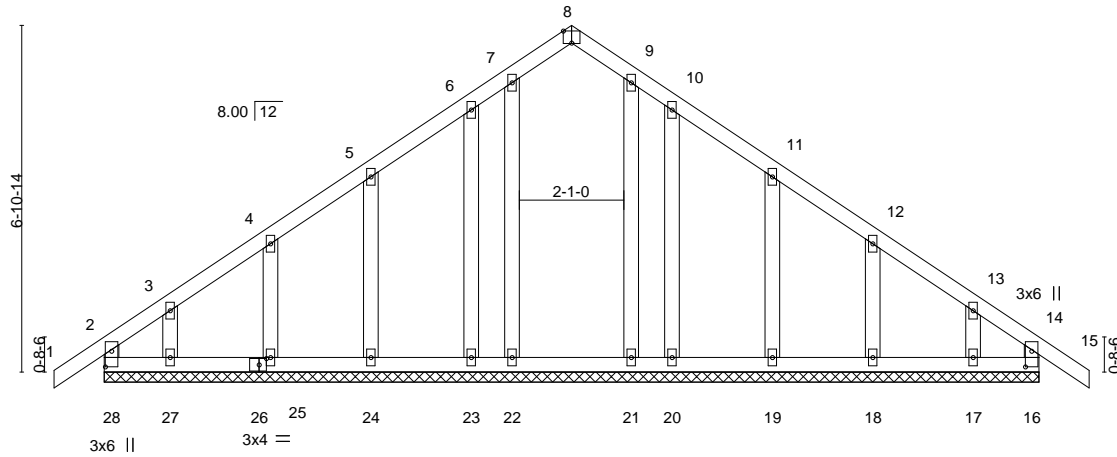


Plate Offsets (X, Y)-- [8:0-2-0,Edge], [14:0-3-12,0-1-8], [26:0-1-12,0-1-8], [28:0-3-12,0-1-8]

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 0.13	Vert(LL)	-0.00	15	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	15	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	16	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 118 lb	FT = 20%

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

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

REACTIONS. All bearings 18-7-8.
(lb) - Max Horz 28=-170(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 28, 16, 23, 24, 25, 20, 19, 18 except 27=-125(LC 12), 17=-117(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 28, 16, 22, 21, 23, 24, 25, 27, 20, 19, 18, 17

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 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 7) Gable studs spaced at 2-0-0 oc.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) * 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.



September 17, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	147936834
Winston C Vault Bonus	BGR	Common Girder	1	3	Job Reference (optional)	

84 Components (Dunn),

Dunn, NC - 28334,

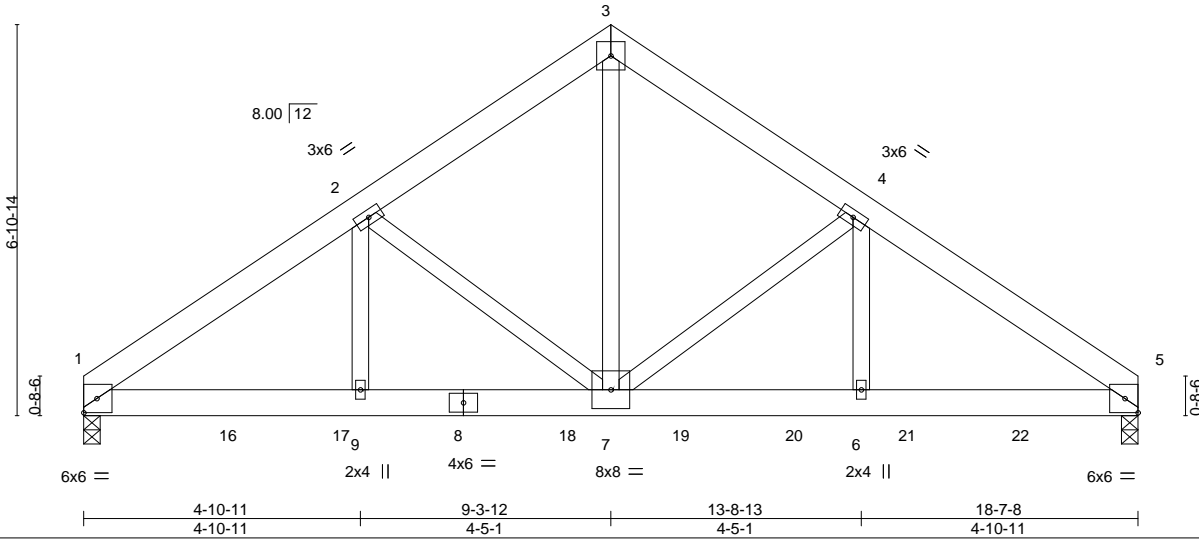
8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:42:06 2021 Page 1

ID:8EYqACbvnIvGaMjcr6YHYtyd5ag-kc2PiM66SZ_B2XVaP8QHg9prU?jU2BqkHALaxeyd2mF



6x6 =

Scale = 1:40.7



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 0.14	Vert(LL) -0.05	7-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT) -0.10	7-9	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.74	Horz(CT) 0.04	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS				Weight: 391 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 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 5=0-3-8
 Max Horz 1=154(LC 9)
 Max Uplift 1=740(LC 12), 5=644(LC 13)
 Max Grav 1=5895(LC 1), 5=5129(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-7343/1001, 2-3=-5186/774, 3-4=-5183/773, 4-5=-7343/1001
 BOT CHORD 1-9=-803/6054, 7-9=-803/6054, 6-7=-758/6043, 5-6=-758/6043
 WEBS 3-7=-733/5326, 4-7=-2232/402, 4-6=-252/2378, 2-7=-2246/403, 2-9=-249/2366

- NOTES-**
- 1) 3-ply truss to be connected together with 10d (0.120"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 2) 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.
 - 3) Unbalanced roof live loads have been considered for this design.
 - 4) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 7) Two H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 5. This connection is for uplift only and does not consider lateral forces.
 - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1063 lb down and 140 lb up at 0-6-12, 1059 lb down and 145 lb up at 2-6-12, 1059 lb down and 145 lb up at 4-6-12, 1059 lb down and 145 lb up at 6-6-12, 1059 lb down and 145 lb up at 8-6-12, 1059 lb down and 145 lb up at 10-6-12, 1059 lb down and 145 lb up at 12-6-12, and 1059 lb down and 145 lb up at 14-6-12, and 1059 lb down and 145 lb up at 16-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-3=-60, 3-5=-60, 10-13=-20



Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	I47936834
Winston C Vault Bonus	BGR	Common Girder	1	3	Job Reference (optional)	

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

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:42:06 2021 Page 2
 ID:8EYqACbvnIVgaMjcr6YHYtyd5ag-kc2PiM66SZ_B2XVaP8QHg9prU?jU2BqkHAlaxeyd2mF

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 8=-1059(B) 12=-1063(B) 16=-1059(B) 17=-1059(B) 18=-1059(B) 19=-1059(B) 20=-1059(B) 21=-1059(B) 22=-1059(B)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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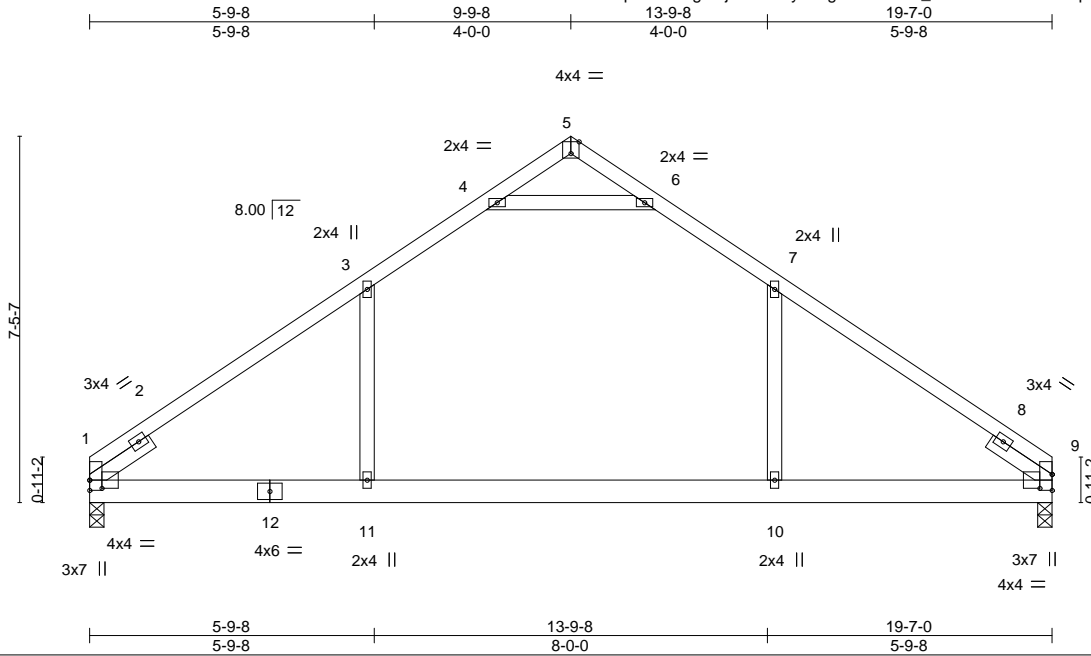
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	147936835
Winston C Vault Bonus	C	ROOF TRUSS	10	1		

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

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:42:08 2021 Page 1

ID:8EYqACbvnIvGaMjcr6YHYtyd5ag-h?99728M_AEvHrfzXZSImav57pP4WEa1Ung0Wyd2mD



Scale = 1:46.9

Plate Offsets (X, Y)--	[1:0-3-0,0-2-0], [5:0-2-0,Edge], [9:0-3-0,0-3-7]
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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 0.58	Vert(LL)	-0.20	10-11	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.44	10-11	>538		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.04	1	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Attic	-0.11	10-11	930	Weight: 103 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP DSS	TOP CHORD Structural wood sheathing directly applied or 5-7-11 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 or 2x4 SPF No.2	
SLIDER Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0	

REACTIONS. (size) 1=0-3-8, 9=0-3-8
 Max Horz 1=-161(LC 8)
 Max Grav 1=969(LC 20), 9=969(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-3=-1175/180, 3-4=-920/119, 4-5=-10/485, 5-6=-10/486, 6-7=-920/119, 7-9=-1175/180
 BOT CHORD 1-11=0/972, 10-11=0/972, 9-10=0/972
 WEBS 7-10=0/394, 3-11=0/394, 4-6=-1482/162

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Ceiling dead load (5.0 psf) on member(s). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s). 7-10, 3-11
 - 6) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 10-11
 - 7) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



September 17, 2021

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</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 ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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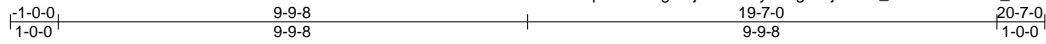
Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	147936836
Winston C Vault Bonus	CE	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn),

Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:42:09 2021 Page 1

ID:8EYqACbvnIvgaMjcr6YHYtyd5ag-9BjYKO9_IUMmv?E95Hz_InRMEDv4FifAz8WEYzyd2mC



Scale: 1/4"=1'

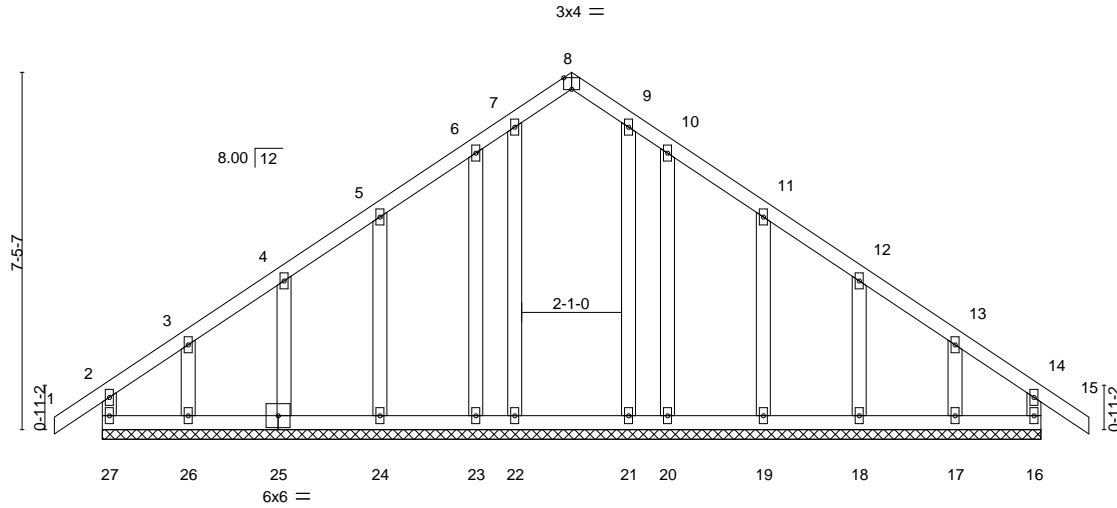


Plate Offsets (X,Y)-- [8:0-2-0,Edge]

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 0.17	Vert(LL)	-0.00	15	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	15	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	16	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 130 lb	FT = 20%

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

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

REACTIONS. All bearings 19-7-0.
 (lb) - Max Horz 27=-178(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 27, 16, 23, 24, 25, 20, 19, 18 except 26=-146(LC 12), 17=-133(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 27, 16, 22, 21, 23, 24, 25, 26, 20, 19, 18, 17

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 Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 7) Gable studs spaced at 2-0-0 oc.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) * 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.



September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Winston vault Bonus	147936837
Winston C Vault Bonus	D	Monopitch	10	1		

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

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Sep 16 12:42:10 2021 Page 1
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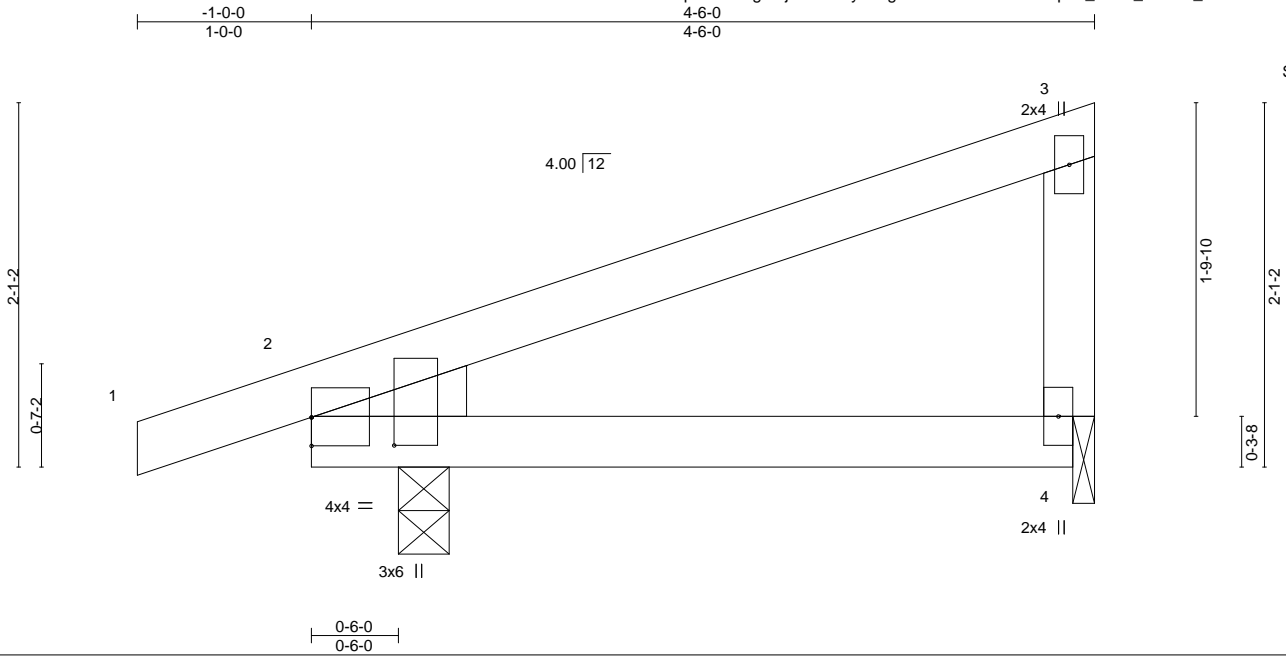


Plate Offsets (X,Y)--	[2:0-1-15,0-5-11]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.18	Vert(LL) -0.01 4-9 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.14	Vert(CT) -0.02 4-9 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 2 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP		Weight: 19 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
 WEBS 2x4 SP No.3
 WEDGE
 Left: 2x4 SP No.3

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-1-8
 Max Horz 2=73(LC 8)
 Max Uplift 2=-70(LC 8), 4=-37(LC 12)
 Max Grav 2=272(LC 1), 4=136(LC 1)

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

NOTES-

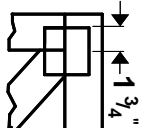
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) One H2.5A Simpson Strong-Tie 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.



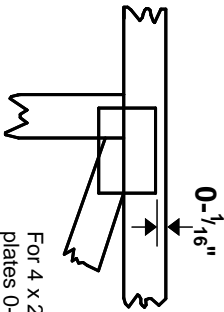
September 17, 2021

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 location details available in **MITek 20/20 software** or upon request.

PLATE SIZE

4 X 4

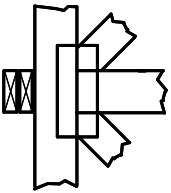
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



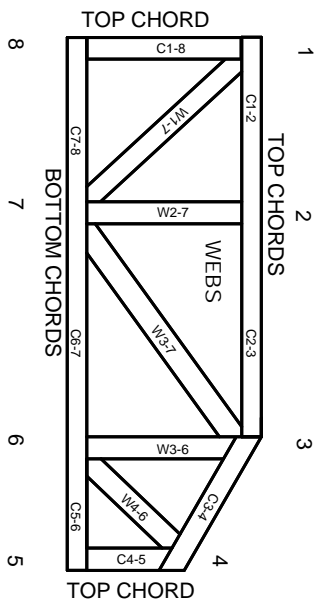
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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/TFP 1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



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/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.