ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: B_Bonus_Vault
Winston B Vlt Bonus

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: I39609096 thru I39609110

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

North Carolina COA: C-0844

December 13,2019

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	Winston B Vlt Bonus
B_Bonus_Vault	JK1	MONO TRUSS	8	1	I39609096
					Job Reference (optional)

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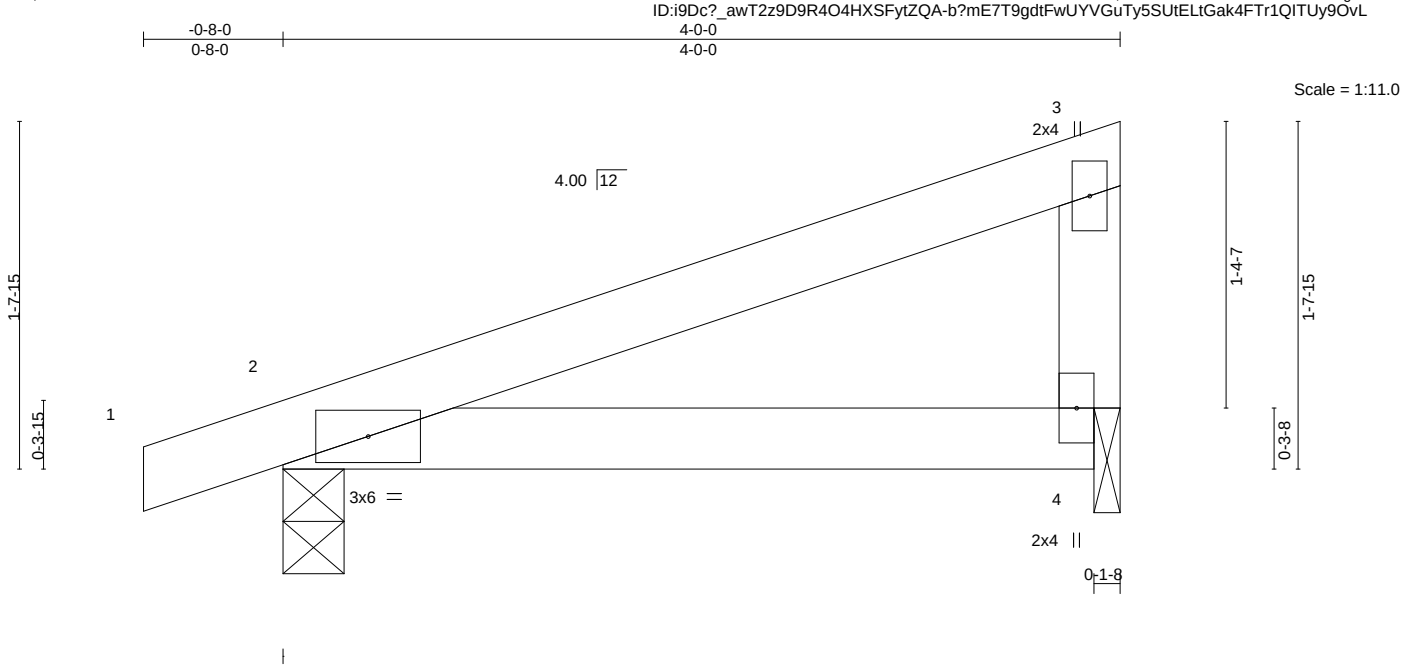

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.02	2-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	2-4	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 15 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (lb/size) 2=202/0-3-8 (min. 0-1-8), 4=143/0-1-8 (min. 0-1-8)
Max Horz 2=46(LC 7)
Max Uplift 2=-61(LC 6), 4=-39(LC 6)

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

NOTES-

1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left 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 1-0-0 wide will fit between the bottom chord and any other members.
4) Bearings are assumed to be: Joint 2 User Defined .
5) 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.
6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 2 and 39 lb uplift at joint 4.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	JS1G	MONO HIP	1	1	I39609097
					Job Reference (optional)

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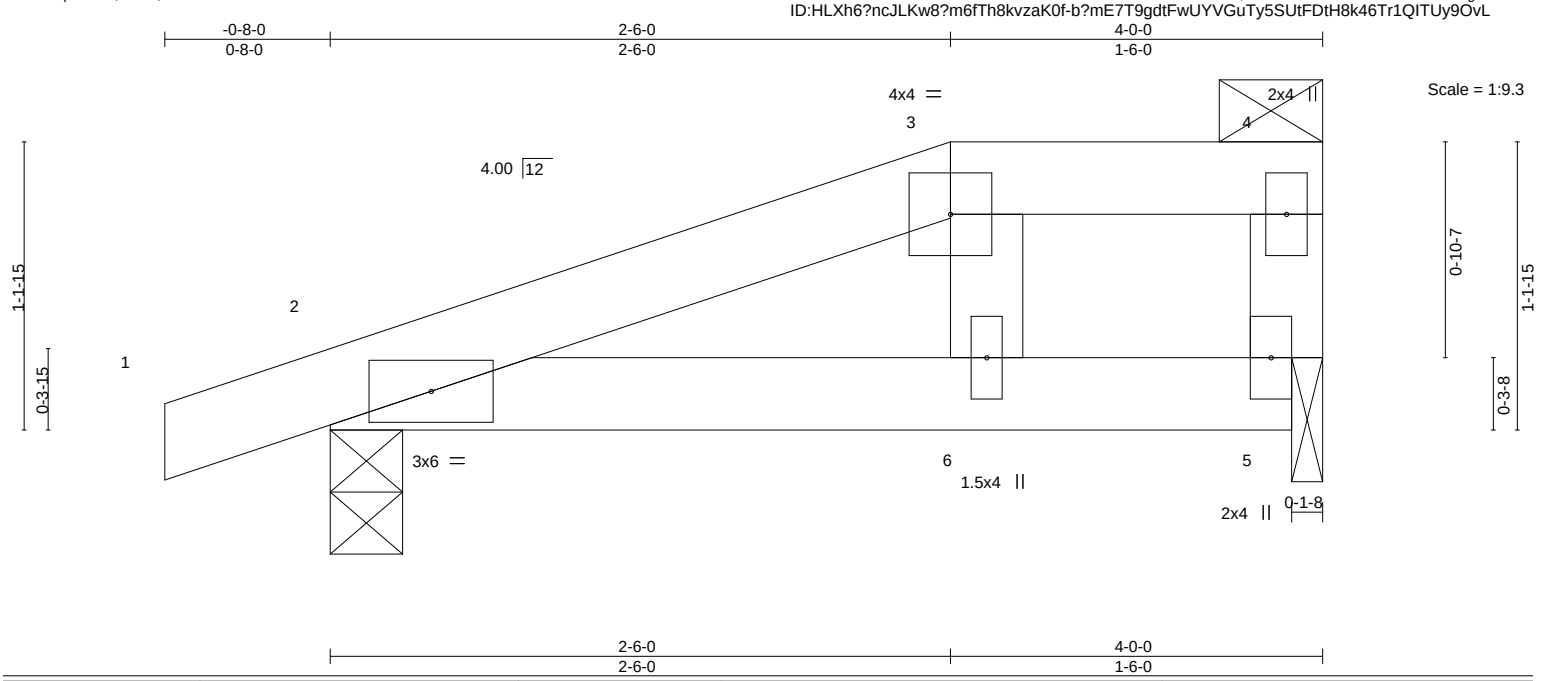

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.00	6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	2-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 15 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (lb/size) 2=210/0-3-8 (min. 0-1-8), 5=151/0-1-8 (min. 0-1-8)
Max Horz 2=32(LC 5)
Max Uplift 2=-36(LC 4), 5=-11(LC 4)

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

NOTES-

1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
5) Bearings are assumed to be: Joint 2 User Defined .
6) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 2 and 11 lb uplift at joint 5.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 2-5=-24(F=-4)

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	SJ1	MONO TRUSS	1	1	I39609098
					Job Reference (optional)

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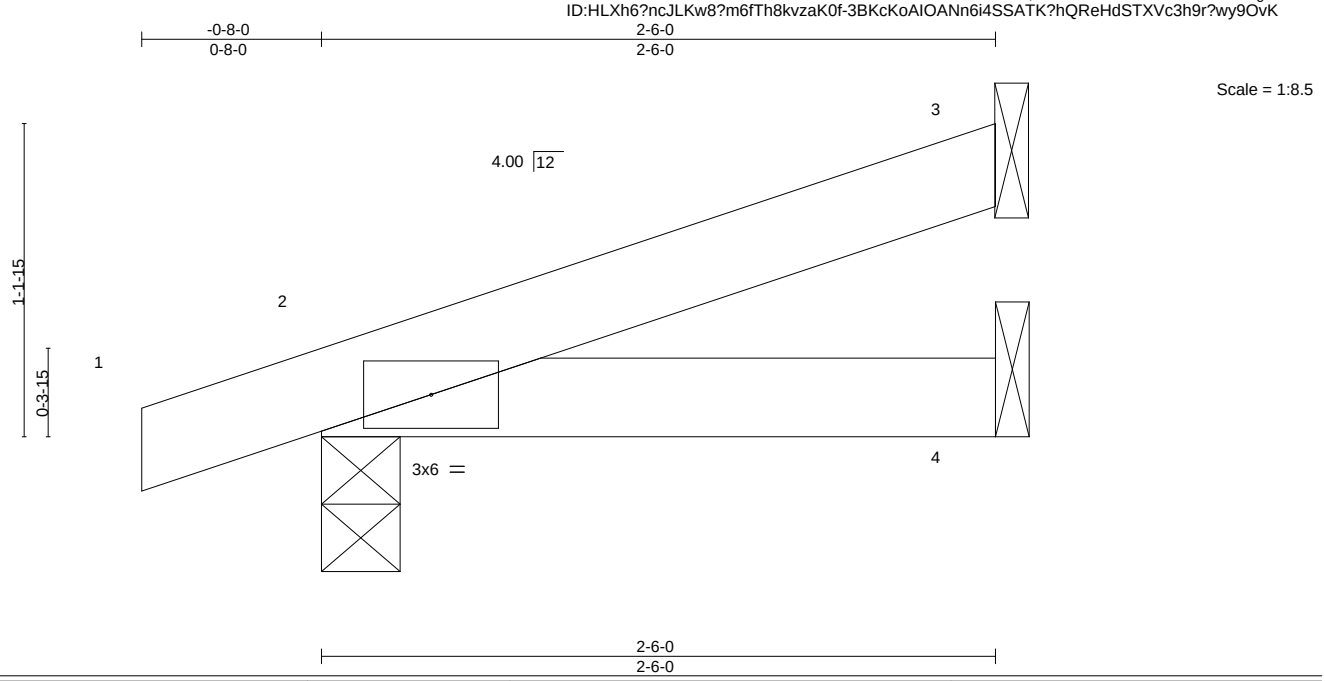

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	2-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	2-4	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 9 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 3=60/Mechanical, 2=149/0-3-8 (min. 0-1-8), 4=23/Mechanical
Max Horz 2=33(LC 6)
Max Uplift 3=-23(LC 10), 2=-30(LC 6)
Max Grav 3=60(LC 1), 2=149(LC 1), 4=46(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 1-0-0 wide will fit between the bottom chord and any other members.
4) Bearings are assumed to be: Joint 2 User Defined .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 3 and 30 lb uplift at joint 2.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	T1AV	SPECIAL	3	1	I39609099
					Job Reference (optional)

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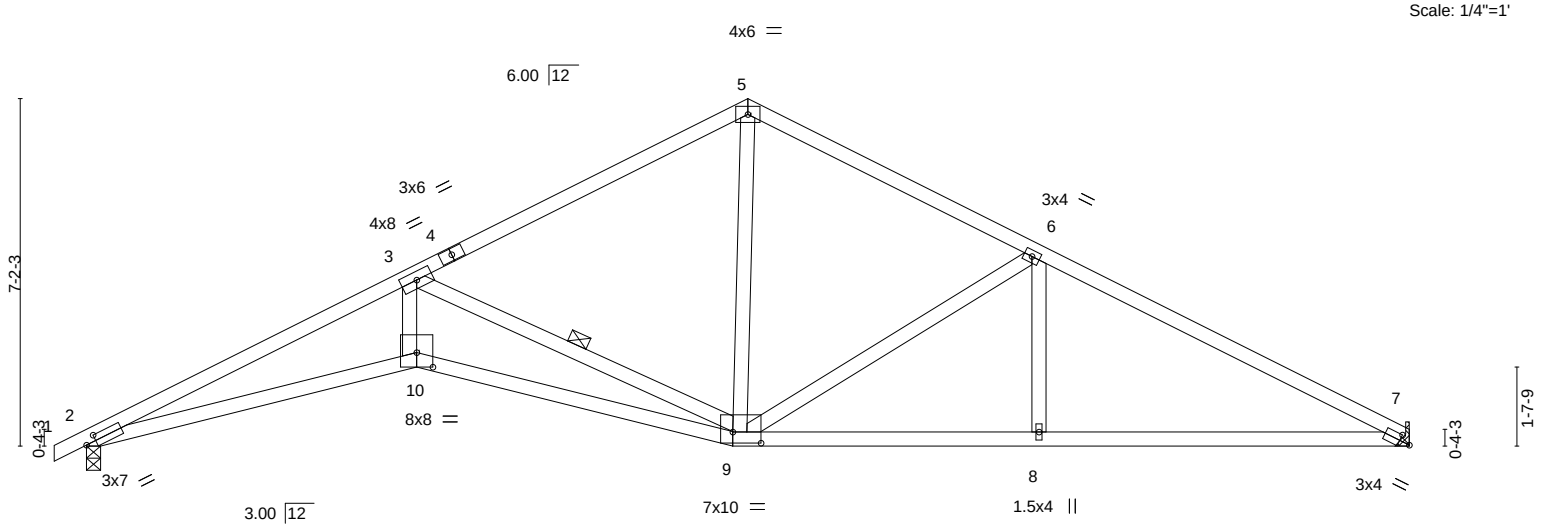
-0-8-0 6-9-14 13-8-0 19-8-3 27-4-0

0-8-0 6-9-14 6-10-2 6-0-3 7-7-13

Scale: 1/4"=1'



6-9-14 13-4-4 19-8-3 27-4-0

6-9-14 6-6-6 6-3-15 7-7-13

Plate Offsets (X,Y)-- [2:0-2-9,0-1-8], [7:0-2-10,0-1-8], [9:0-7-0,0-2-12], [10:0-4-0,0-3-10]

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)	-0.24	10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.52	9-10	>627	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.26	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 127 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except* 5-7: 2x4 SP No.1

BOT CHORD 2x4 SP No.2 *Except* 2-10: 2x4 SP No.1

WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 9-10.

WEBS 1 Row at midpt 3-9

REACTIONS. (lb/size) 7=1081/Mechanical, 2=1131/0-3-8 (min. 0-1-12)
Max Horz 2=98(LC 10)
Max Uplift 7=-29(LC 11), 2=-40(LC 10)

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

TOP CHORD 2-3=-3612/415, 3-4=-1333/198, 4-5=-1233/232, 5-6=-1289/236, 6-7=-1891/241

BOT CHORD 2-10=-320/3243, 9-10=-325/3390, 8-9=-137/1621, 7-8=-137/1621

WEBS 3-10=-74/1743, 3-9=-2437/327, 5-9=-77/741, 6-9=-667/147, 6-8=0/320

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 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 1-0-0 wide will fit between the bottom chord and any other members.
5) Bearings are assumed to be: Joint 2 User Defined .
6) Refer to girder(s) for truss to truss connections.
7) 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 7 and 40 lb uplift at joint 2.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	T1B	COMMON	7	1	I39609100
					Job Reference (optional)

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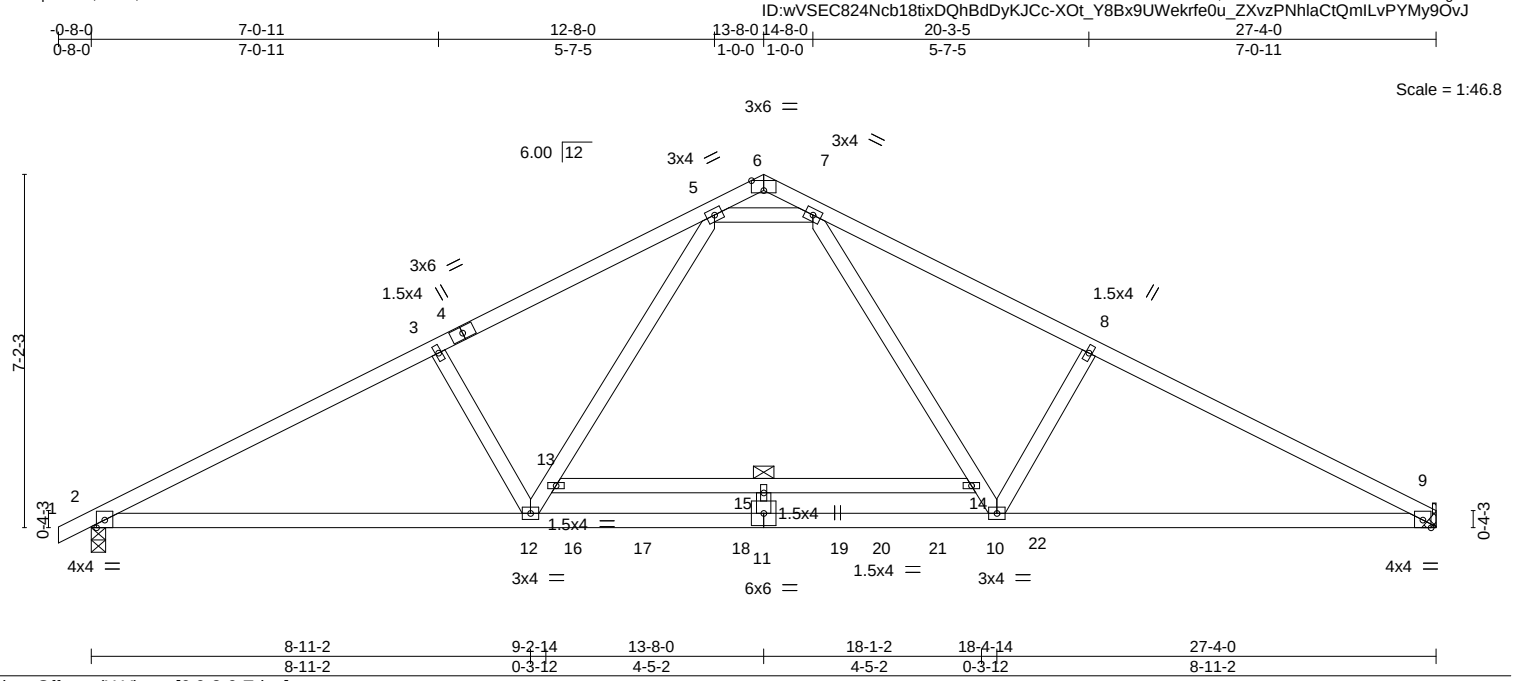

Plate Offsets (X,Y)-- [6:0-3-0,Edge]

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	0.90	Vert(LL)	-0.17	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.39	9-10	>838	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.07	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 136 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 13-14: 2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 13-14

REACTIONS. (lb/size) 9=1081/Mechanical, 2=1131/0-3-8 (min. 0-1-13)
Max Horz 2=97(LC 10)
Max Uplift 9=-29(LC 11), 2=-40(LC 10)
Max Grav 9=1119(LC 30), 2=1169(LC 26)

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

TOP CHORD	2-3=-1979/257, 3-4=-1798/251, 4-5=-1783/282, 7-8=-1801/284, 8-9=-1983/260
BOT CHORD	2-12=-155/1704, 12-16=-43/1221, 16-17=-43/1221, 17-18=-43/1221, 11-18=-43/1221, 11-19=-43/1221, 19-20=-43/1221, 20-21=-43/1221, 21-22=-43/1221, 10-22=-43/1221, 9-10=-159/1709
WEBS	3-12=-405/179, 8-10=-409/185, 12-13=-58/648, 5-13=-54/673, 5-7=-1289/345, 7-14=-57/677, 10-14=-61/653

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 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 1-0-0 wide will fit between the bottom chord and any other members.
5) Bearings are assumed to be: Joint 2 User Defined .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 9 and 40 lb uplift at joint 2.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Load case(s) 25, 26, 27, 28, 29, 30 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
10) MULTIPLE LOADCASES – This design is the composite result of multiple load cases.
11) User moving load cases exist: Review the load cases for details.
12) 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 Except:

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LOAD CASE(S)

25) User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60(F), 6-9=-60(F), 2-9=-20(F)

26) 1st User Defined Moving Load - User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60(F), 6-9=-60(F), 2-16=-20(F), 16-17=-50(F=-20), 9-17=-20(F)

27) 2nd User Defined Moving Load - User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60(F), 6-9=-60(F), 2-17=-20(F), 17-18=-50(F=-20), 9-18=-20(F)

28) 3rd User Defined Moving Load - User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60(F), 6-9=-60(F), 2-18=-20(F), 18-19=-50(F=-20), 9-19=-20(F)

29) 4th User Defined Moving Load - User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60(F), 6-9=-60(F), 2-19=-20(F), 19-21=-50(F=-20), 9-21=-20(F)

30) 5th User Defined Moving Load - User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60(F), 6-9=-60(F), 2-20=-20(F), 20-22=-50(F=-20), 9-22=-20(F)

Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus	
B_Bonus_Vault	T1BV	SPECIAL	6	1	Job Reference (optional)	I39609101

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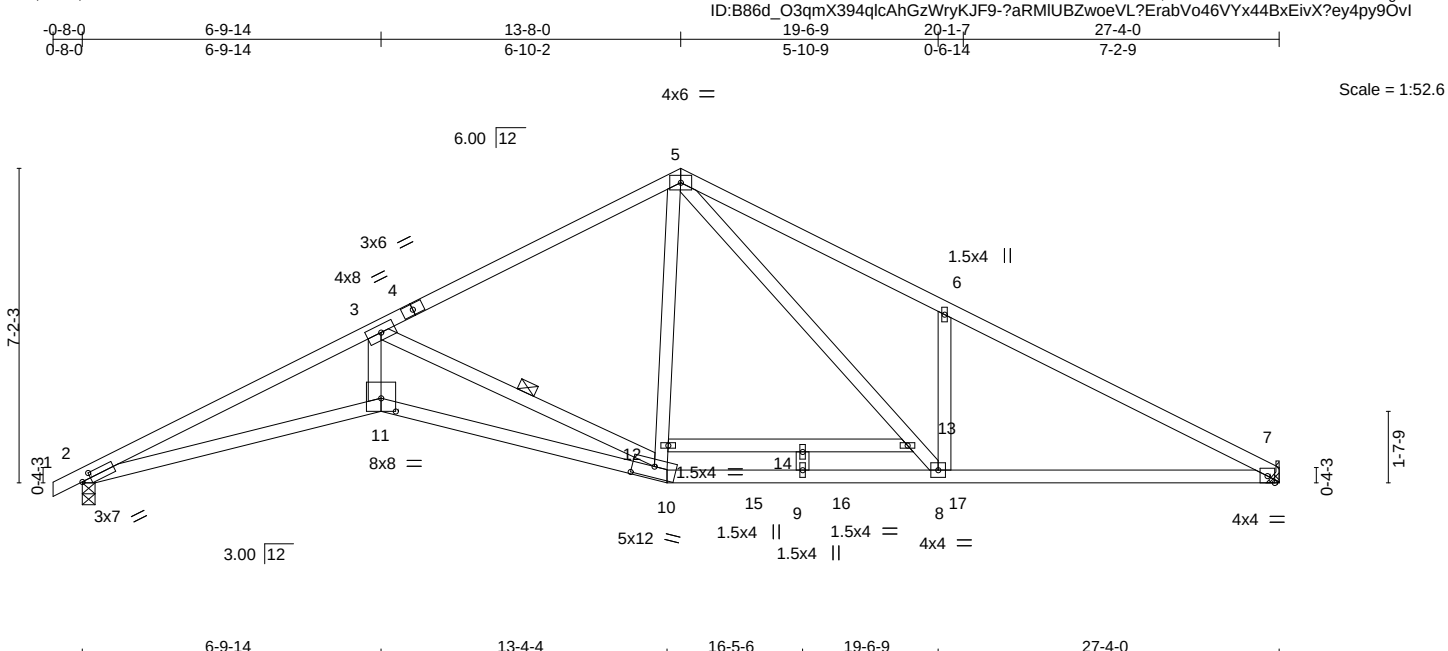

Plate Offsets (X,Y)-- [2:0-2-8,0-1-8], [10:0-6-0,0-3-0], [11:0-4-0,0-3-10]

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	0.98	Vert(LL)	-0.24	11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.53	10-11	>614	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.26	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 138 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
5-7: 2x4 SP No.1
BOT CHORD 2x4 SP No.2 *Except*
2-11: 2x4 SP No.1
WEBS 2x4 SP No.3 *Except*
12-13: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
1-4-12 oc bracing: 10-11.
WEBS 1 Row at midpt 3-10

REACTIONS. (lb/size) 7=1081/Mechanical, 2=1131/0-3-8 (min. 0-1-13)
Max Horz 2=98(LC 10)
Max Uplift 7=-29(LC 11), 2=-40(LC 10)
Max Grav 7=1129(LC 29), 2=1160(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3722/415, 3-4=-1397/198, 4-5=-1297/232, 5-6=-2010/377, 6-7=-1996/242
BOT CHORD 2-11=-320/3343, 10-11=-325/3494, 10-15=-10/1153, 9-15=-10/1153, 9-16=-10/1153, 16-17=-10/1153, 8-17=-10/1153, 7-8=-137/1714
WEBS 3-11=-74/1790, 3-10=-2486/327, 10-12=-2/438, 5-12=-0/455, 5-13=-185/890, 8-13=-191/873, 6-8=-460/227

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 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 1-0-0 wide will fit between the bottom chord and any other members.
5) Bearings are assumed to be: Joint 2 User Defined .
6) Refer to girder(s) for truss to truss connections.
7) 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 7 and 40 lb uplift at joint 2.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Load case(s) 25, 26, 27, 28, 29 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
11) MULTIPLE LOADCASES – This design is the composite result of multiple load cases.
12) User moving load cases exist: Review the load cases for details.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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Continued on page 2

LOAD CASE(S) Standard Except:

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LOAD CASE(S)

25) User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60(F), 5-7=-60(F), 2-11=-20(F), 10-11=-20(F), 7-10=-20(F)

26) 1st User Defined Moving Load - User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60(F), 5-7=-60(F), 2-11=-20(F), 10-11=-20(F), 10-15=-50(F=-20), 7-15=-20(F)

27) 2nd User Defined Moving Load - User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60(F), 5-7=-60(F), 2-11=-20(F), 10-11=-20(F), 10-15=-20(F), 15-16=-50(F=-20), 7-16=-20(F)

28) 3rd User Defined Moving Load - User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60(F), 5-7=-60(F), 2-11=-20(F), 10-11=-20(F), 10-16=-20(F), 16-17=-50(F=-20), 7-17=-20(F)

29) 4th User Defined Moving Load - User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60(F), 5-7=-60(F), 2-11=-20(F), 10-11=-20(F), 10-16=-20(F), 8-16=-50(F=-20), 7-8=-20(F)

Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	T1GEA	GABLE	1	1	I39609102
					Job Reference (optional)

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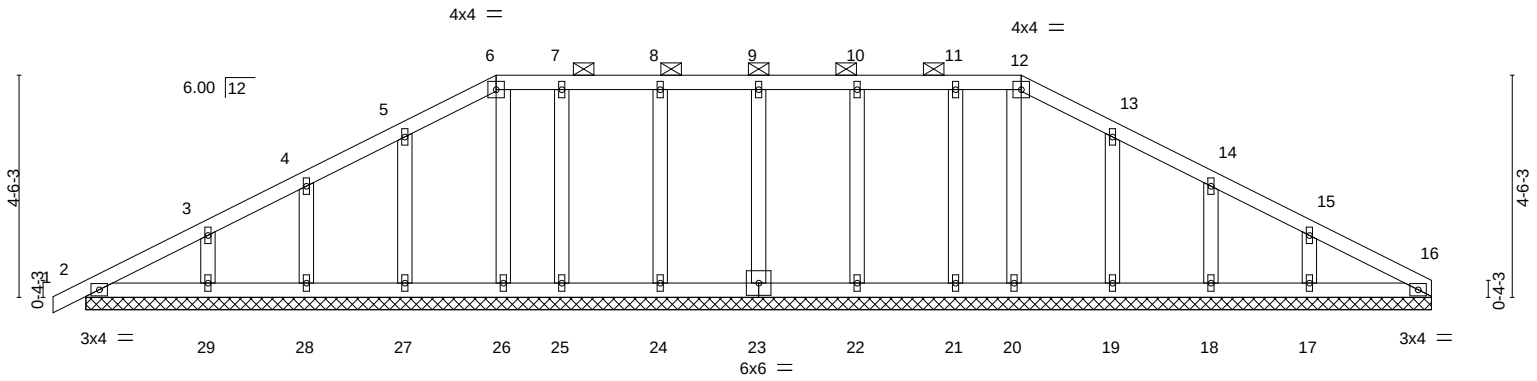
ID:c_vl3iY7CIhpczroWuOWPczaK4q-Tm?lzqCBh5mMz9p17J11dK2xlUfGgtX3lfOVcFy9OvH

-0-8-0 / 0-8-0 — 8-4-0 / 8-4-0 — 19-0-0 / 10-8-0 — 27-4-0 / 8-4-0

Scale = 1:46.8



8-4-0 / 8-4-0 — 19-0-0 / 10-8-0 — 27-4-0 / 8-4-0

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	0.08	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 145 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-12.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 27-4-0.

(lb) - Max Horz 2=63(LC 14)

Max Uplift All uplift 100 lb or less at joint(s) 23, 24, 25, 27, 28, 29, 22, 21, 19, 18, 17

Max Grav All reactions 250 lb or less at joint(s) 16, 2, 23, 24, 25, 27, 28, 29, 22, 21, 19, 18, 17, 26, 20

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 1.5x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) All bearings are assumed to be User Defined .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 24, 25, 27, 28, 29, 22, 21, 19, 18, 17.
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	T1SA	HIP	1	1	I39609103
					Job Reference (optional)

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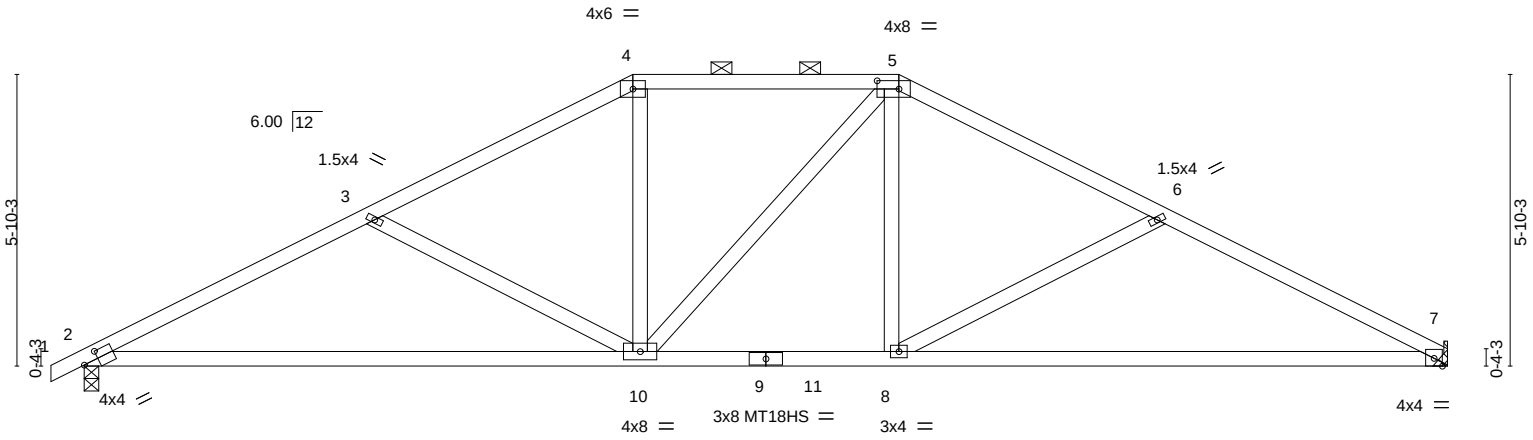
ID:zZsCWIrF?AAdyPXMHspcFAzaK39-xzZ7AADpSPuDbJODh0YG9Xb?kuntPGxC_J738hy9OvG

-0-8-0 | 5-9-14 | 11-0-0 | 16-4-0 | 21-6-2 | 27-4-0

0-8-0 | 5-9-14 | 5-2-2 | 5-4-0 | 5-2-2 | 5-9-14

Scale = 1:46.2



11-0-0 | 16-4-0 | 27-4-0

11-0-0 | 5-4-0 | 11-0-0

Plate Offsets (X,Y)-- [2:0-3-10,0-1-14], [5:0-5-4,0-2-0]

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	0.58	Vert(LL)	-0.41	7-8	>795	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.85	7-8	>381	180	MT18HS	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 130 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-3-14 oc purlins, except 2-0-0 oc purlins (4-4-13 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (lb/size) 7=1081/Mechanical, 2=1131/0-3-8 (min. 0-1-12)
Max Horz 2=80(LC 14)
Max Uplift 7=-14(LC 11), 2=-25(LC 10)

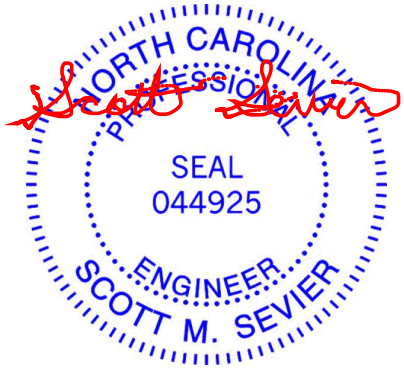
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-1902/284, 3-4=-1538/209, 4-5=-1311/215, 5-6=-1539/209, 6-7=-1905/289
BOT CHORD	2-10=-190/1650, 9-10=-29/1313, 9-11=-29/1313, 8-11=-29/1313, 7-8=-197/1653
WEBS	3-10=-396/181, 4-10=0/412, 5-8=0/414, 6-8=-398/189

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearings are assumed to be: Joint 2 User Defined .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	T1SAGE	GABLE	1	1	I39609104
					Job Reference (optional)

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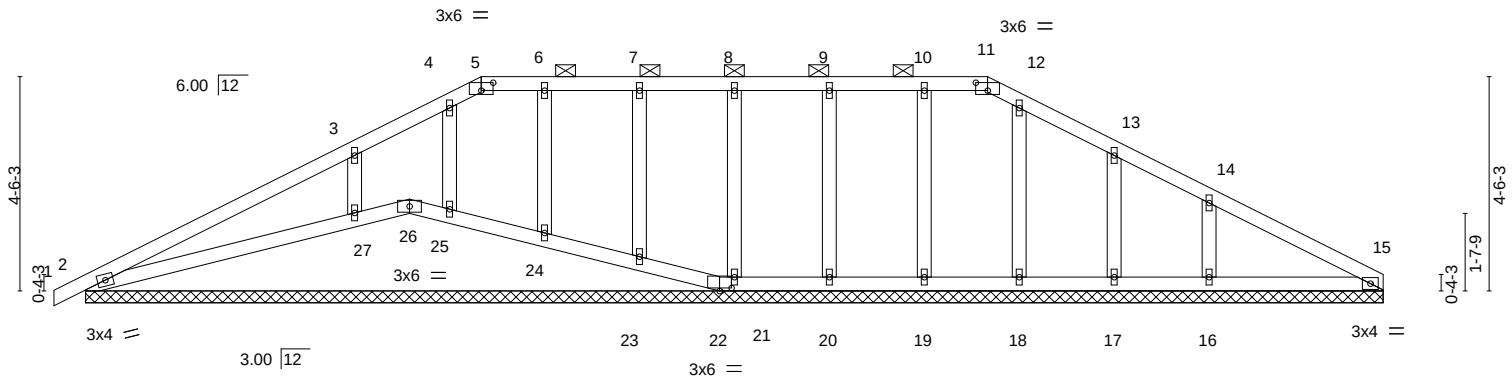
ID:B86d_O3qmX394qlcAhGzWryKJF9-xzZ7AADpSPuDbJODh0YG9Xb2rux3PJQC_J738hy9OvG

-0-8-0	6-9-14	8-4-0	13-8-0	19-0-0	27-4-0
0-8-0	6-9-14	1-6-2	5-4-0	5-4-0	8-4-0

Scale = 1:48.5



6-9-14	13-4-4	27-4-0
6-9-14	6-6-6	13-11-12

Plate Offsets (X,Y)-- [5:0-3-0,0-2-0], [11:0-3-0,0-2-0], [22:0-3-0,0-0-12]

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	0.38	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	0.01	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	15	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 131 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, except 2-0-0 oc purlins (6-0-0 max.): 5-11.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 26-27,25-26.

REACTIONS. All bearings 27-4-0.

(lb) - Max Horz 2=63(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 21, 23, 24, 27, 20, 19, 17, 16 except 26=-124(LC 3)
Max Grav All reactions 250 lb or less at joint(s) 15, 2, 22, 21, 23, 24, 25, 20, 19, 18, 17 except 27=516(LC 1), 16=299(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-27=-339/165

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 1.5x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) All bearings are assumed to be User Defined .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 21, 23, 24, 27, 20, 19, 17, 16 except (jt=lb) 26=124.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 26, 23, 24, 25, 27.
13) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	T1SAV	SPECIAL	1	1	I39609105
					Job Reference (optional)

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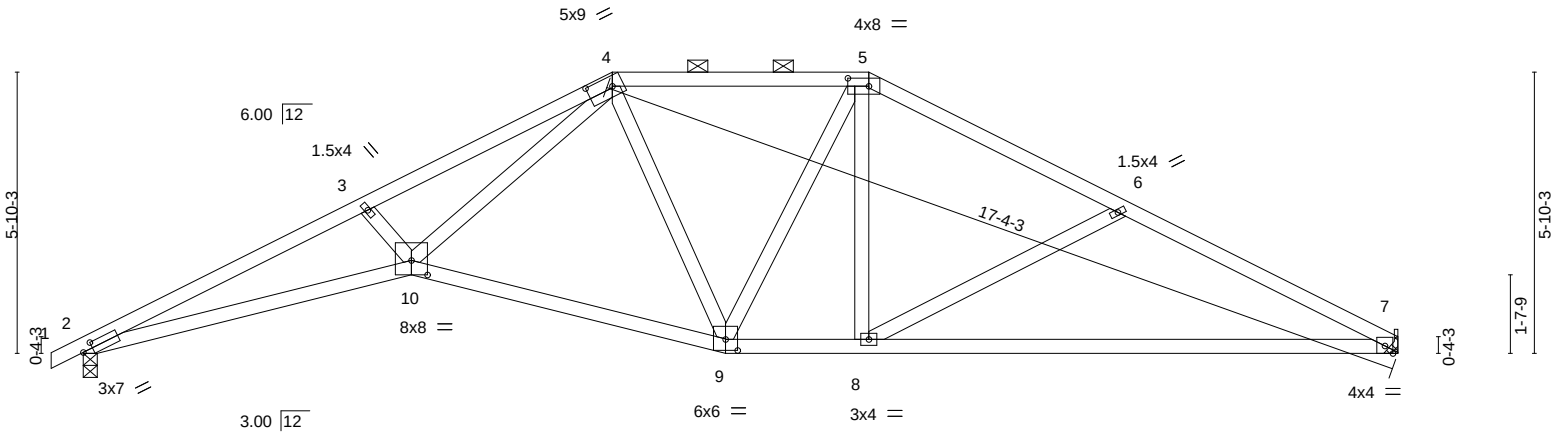
ID:szsw8EugTRQU_KE_39N54rytZYo-P97VOWERDj04CTzQFk3Vil76oI8Y8asLDztch8y9OvF

-0-8-0	5-10-15	11-0-0	16-4-0	21-6-2	27-4-0
0-8-0	5-10-15	5-1-1	5-4-0	5-2-2	5-9-14

Scale: 1/4"=1'



6-9-14	13-4-4	16-4-0	27-4-0
6-9-14	6-6-6	2-11-12	11-0-0

Plate Offsets (X,Y)-- [2:0-2-9,0-1-8], [4:0-6-4,0-2-8], [5:0-5-4,0-2-0], [9:0-3-0,0-2-12], [10:0-4-0,0-3-10]

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	0.81	Vert(LL)	-0.38	7-8	>857	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.81	7-8	>401	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.21	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 132 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1 *Except*
	9-10: 2x4 SP No.2
WEBS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (4-5-8 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 7=1081/Mechanical, 2=1131/0-3-8 (min. 0-1-12)
Max Horz 2=80(LC 10)
Max Uplift 7=-14(LC 11), 2=-25(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3614/398, 3-4=-3413/398, 4-5=-1299/223, 5-6=-1547/205, 6-7=-1911/286
BOT CHORD 2-10=-310/3245, 9-10=-72/1475, 8-9=-25/1321, 7-8=-194/1658
WEBS 3-10=-250/153, 4-10=-187/2147, 4-9=-356/72, 5-8=0/505, 6-8=-396/190

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 1-0-0 wide will fit between the bottom chord and any other members.
6) Bearings are assumed to be: Joint 2 User Defined .
7) Refer to girder(s) for truss to truss connections.
8) 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	T2	FINK	10	1	I39609106
					Job Reference (optional)

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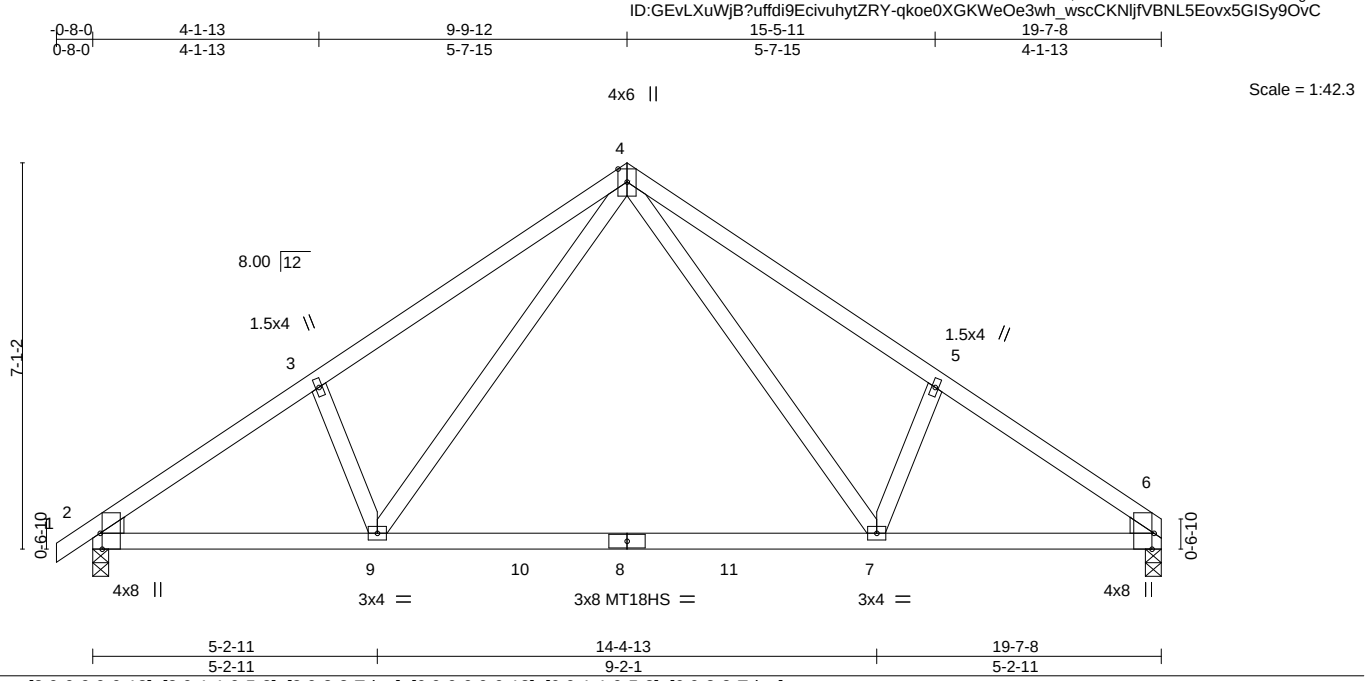

Plate Offsets (X,Y)-- [2:0-0-9,0-0-13], [2:0-1-1,0-5-2], [2:0-3-8,Edge], [6:0-0-9,0-0-13], [6:0-1-1,0-5-2], [6:0-3-8,Edge]

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	0.39	Vert(LL)	-0.24	7-9	>985	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.41	7-9	>572	180	MT18HS	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.02	6	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
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 5-0-6 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=823/0-3-8 (min. 0-1-8), 6=772/0-3-8 (min. 0-1-8)
Max Horz 2=134(LC 9)
Max Uplift 2=-25(LC 10), 6=-13(LC 11)

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

TOP CHORD	2-3=-1158/80, 3-4=-1094/151, 4-5=-1099/154, 5-6=-1161/81
BOT CHORD	2-9=-64/978, 9-10=0/589, 8-10=0/589, 8-11=0/589, 7-11=0/589, 6-7=-20/885
WEBS	4-9=-59/550, 4-7=-60/556

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be User Defined .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

December 13,2019

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

Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	T2GE	GABLE	1	1	I39609107
					Job Reference (optional)

84 Components, Dunn, NC 28334 — 8.330 s Dec 5 2019 MiTek Industries, Inc. Fri Dec 13 11:02:45 2019 Page 1

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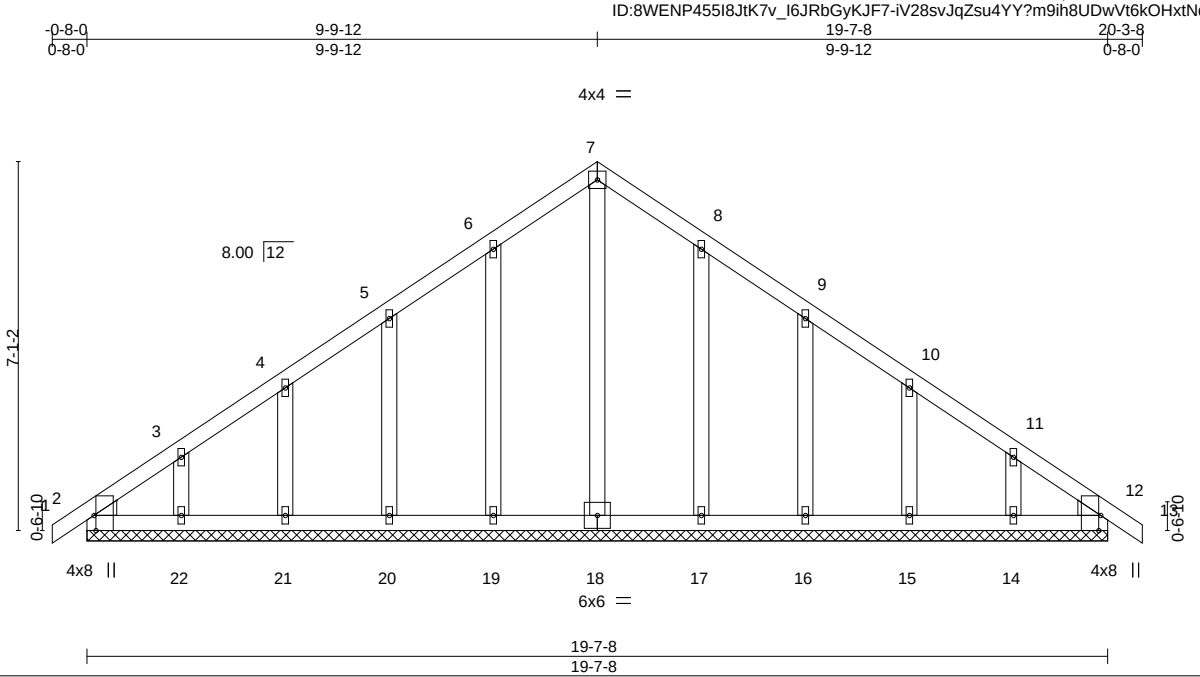

Plate Offsets (X,Y)-- [2:0-0-9,0-0-13], [2:0-1-1,0-5-2], [2:0-3-8,Edge], [12:0-0-9,0-0-13], [12:0-1-1,0-5-2], [12:0-3-8,Edge]

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	0.05	Vert(LL)	-0.00	12	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	12	n/r	90		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 116 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 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 19-7-8.
(lb) - Max Horz 2=135(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 19, 20, 21, 22, 17, 16, 15, 14
Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 19, 20, 21, 22, 17, 16, 15, 14

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) All bearings are assumed to be User Defined .
10) 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.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

December 13,2019

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

Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	T3	COMMON	6	1	I39609108
					Job Reference (optional)

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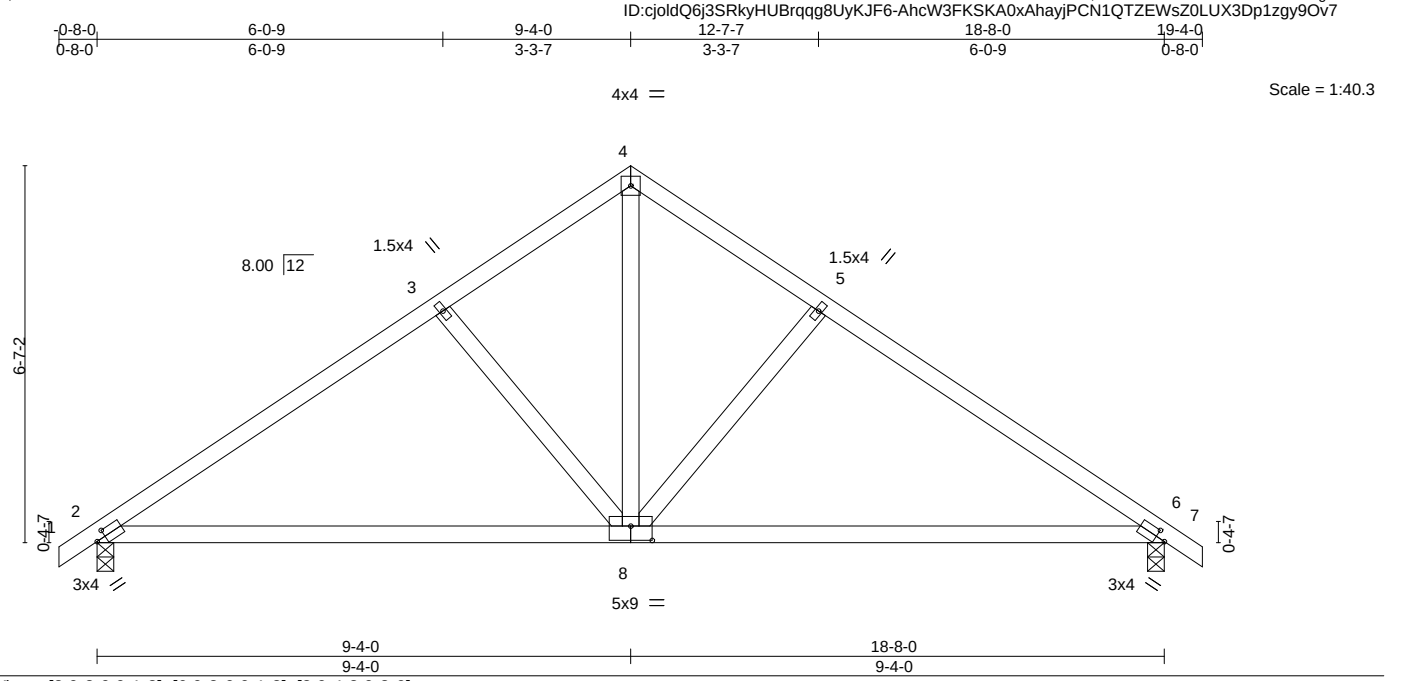

Plate Offsets (X,Y)-- [2:0-2-0,0-1-8], [6:0-2-0,0-1-8], [8:0-4-8,0-3-0]

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	0.46	Vert(LL)	-0.15	6-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.32	6-8	>681	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 88 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-11-9 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=784/0-3-8 (min. 0-1-8), 6=784/0-3-8 (min. 0-1-8)
Max Horz 2=129(LC 9)
Max Uplift 2=-25(LC 10), 6=-25(LC 11)

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

TOP CHORD	2-3=-974/98, 3-4=-767/105, 4-5=-767/105, 5-6=-974/98
BOT CHORD	2-8=-36/748, 6-8=0/748
WEBS	3-8=-291/145, 4-8=-79/656, 5-8=-292/145

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 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 1-0-0 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be User Defined .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

December 13,2019

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

Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus
B_Bonus_Vault	T3GE	GABLE	1	1	I39609109
					Job Reference (optional)

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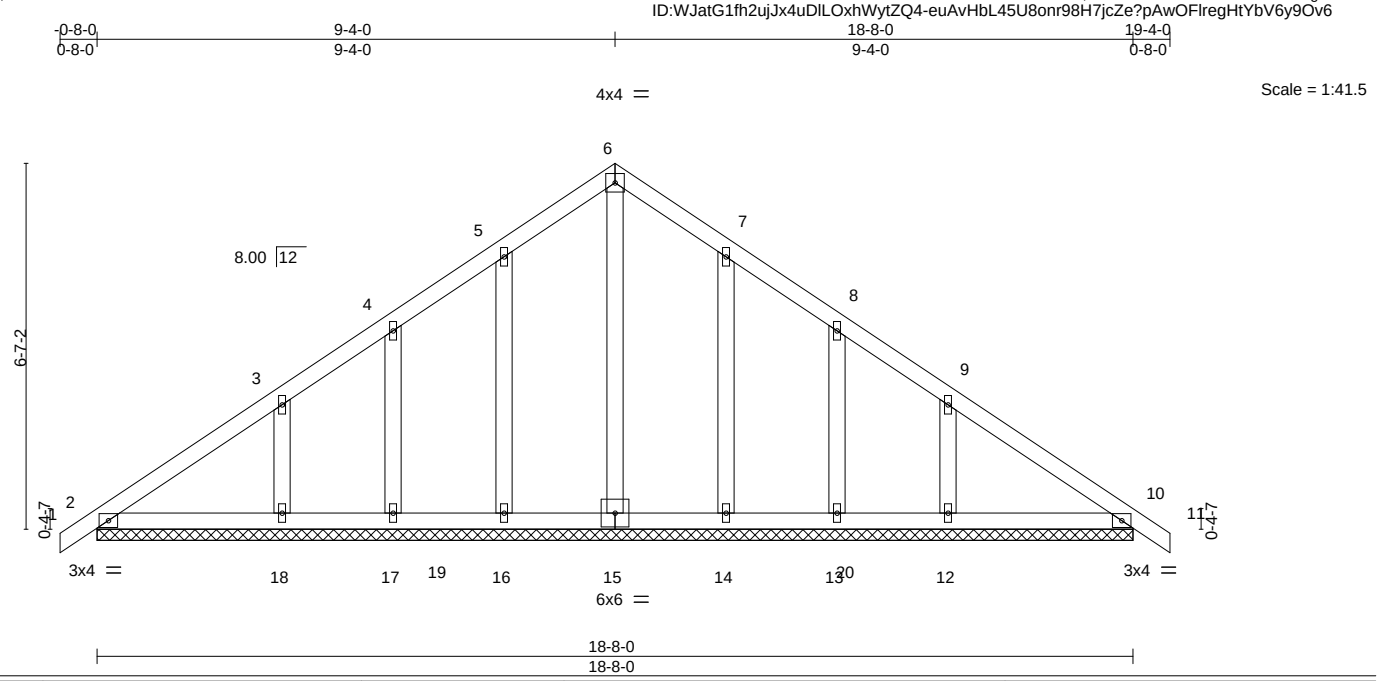

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.00	11	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.01	11	n/r	90		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 103 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 18-8-0.

(lb) - Max Horz 2=129(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 16, 17, 18, 14, 13, 12

Max Grav All reactions 250 lb or less at joint(s) 2, 15, 16, 17, 14, 13, 10 except 18=269(LC 17), 12=268(LC 18)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) All bearings are assumed to be User Defined .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 17, 18, 14, 13, 12.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

December 13,2019

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

Job	Truss	Truss Type	Qty	Ply	Winston B Vlt Bonus	I39609110
B_Bonus_Vault	T3GR	COMMON	1	2	Job Reference (optional)	

84 Components, Dunn, NC 28334

8.330 s Dec 5 2019 MiTek Industries, Inc. Fri Dec 13 11:02:48 2019 Page 1

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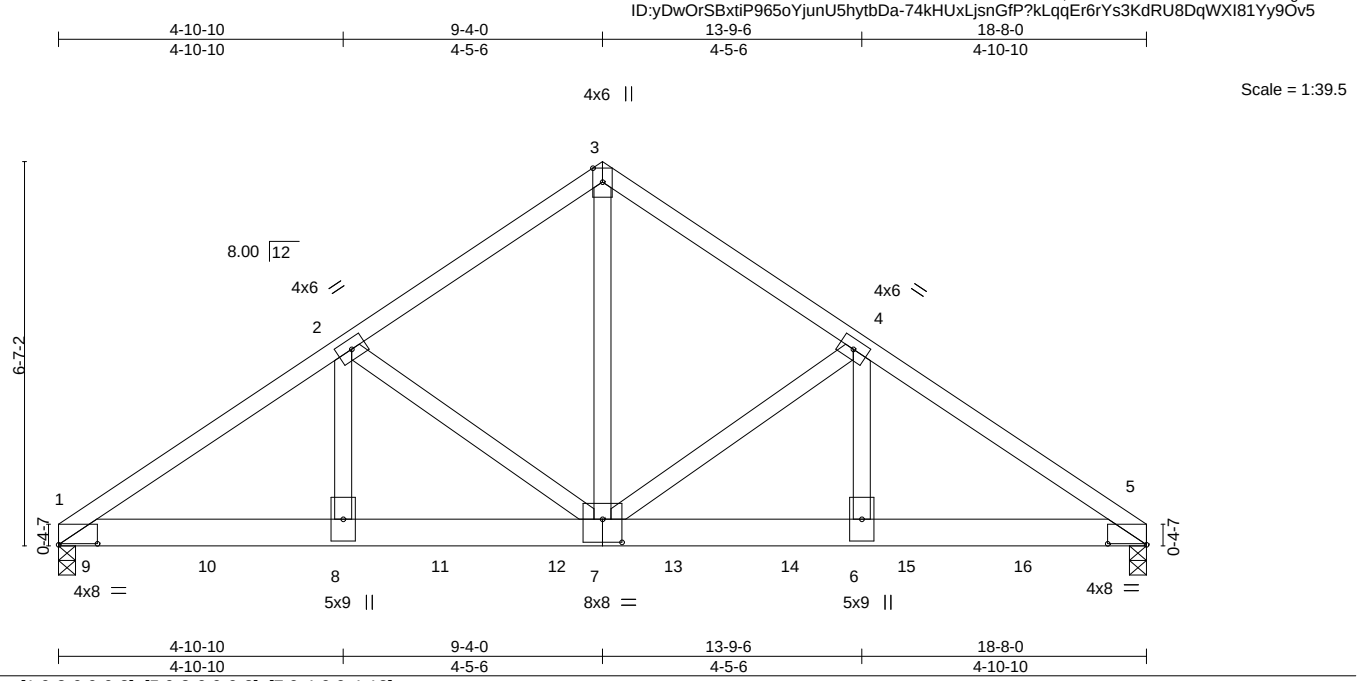


Plate Offsets (X,Y)-- [1:0-8-0,0-0-3], [5:0-8-0,0-0-3], [7:0-4-0,0-4-12]

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	0.70	Vert(LL)	-0.09	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.19	7-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.05	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 220 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP DSS
WEBS	2x4 SP No.3 *Except* 3-7: 2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-8-2 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=6164/0-3-8 (min. 0-3-2), 5=5301/0-3-8 (min. 0-2-11)
Max Horz 1=120(LC 7)
Max Uplift 1=-223(LC 8), 5=-194(LC 9)

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

TOP CHORD	1-2=-8165/302, 2-3=-5491/255, 3-4=-5491/255, 4-5=-8009/301
BOT CHORD	1-9=-273/6710, 9-10=-273/6710, 8-10=-273/6710, 8-11=-273/6710, 11-12=-273/6710, 7-12=-273/6710, 7-13=-195/6580, 13-14=-195/6580, 6-14=-195/6580, 6-15=-195/6580, 15-16=-195/6580, 5-16=-195/6580
WEBS	3-7=-214/5743, 4-7=-2569/190, 4-6=-49/2677, 2-7=-2729/191, 2-8=-51/2857

NOTES-

1) 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-3-0 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=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; 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 1-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=223, 5=194.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1132 lb down and 51 lb up at 0-7-4, 1132 lb down and 51 lb up at 2-7-4, 1132 lb down and 51 lb up at 4-7-4, 1132 lb down and 51 lb up at 6-7-4, 1132 lb down and 51 lb up at 8-7-4, 1084 lb down and 51 lb up at 10-7-4, 1084 lb down and 51 lb up at 12-7-4, and 1084 lb down and 51 lb up at 14-7-4, and 1084 lb down and 51 lb up at 16-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

December 13,2019

LOAD CASE(S) Standard

Continued on page 2

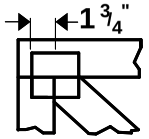
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

LOAD CASE(S) Standard

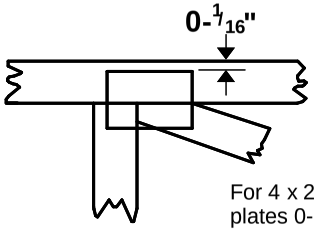
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-5=-60, 1-5=-20
   Concentrated Loads (lb)
   Vert: 8=-1132(F) 9=-1132(F) 10=-1132(F) 11=-1132(F) 12=-1132(F) 13=-1084(F) 14=-1084(F) 15=-1084(F) 16=-1084(F)

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.

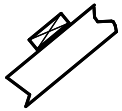
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

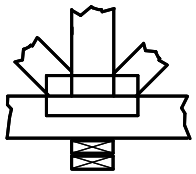
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

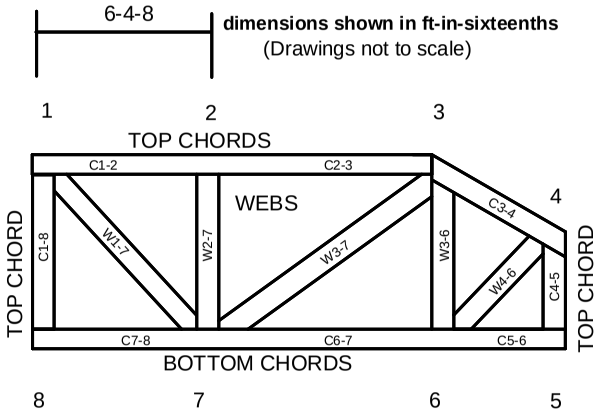


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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.

MiTek®

ENGINEERING BY TRENCO
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MiTek Engineering Reference Sheet: MII-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.