ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 19837-19837A
Winston B Vault Master

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: I36003570 thru I36003585

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

North Carolina COA: C-0844

January 31,2019

Sevier, Scott

IMPORTANT NOTE: Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	JK1	MONO TRUSS	8	1	I36003570
					Job Reference (optional)

84 Components, Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Jan 30 13:35:47 2019 Page 1
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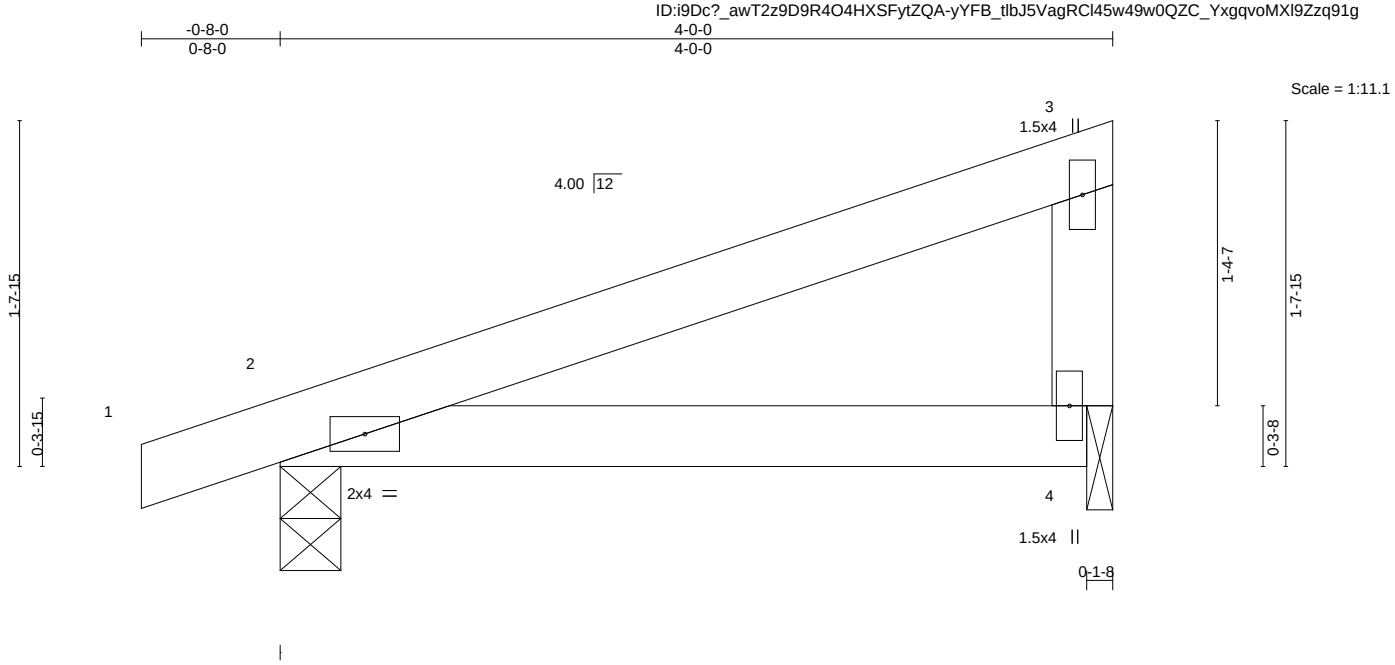

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.02	2-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	2-4	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	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, 4=143/0-1-8
Max Horz 2=51(LC 9)
Max Uplift 2=-71(LC 8), 4=-46(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; 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 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

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Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	JS1G	MONO HIP	1	1	I36003571
					Job Reference (optional)

84 Components, Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Jan 30 13:35:48 2019 Page 1
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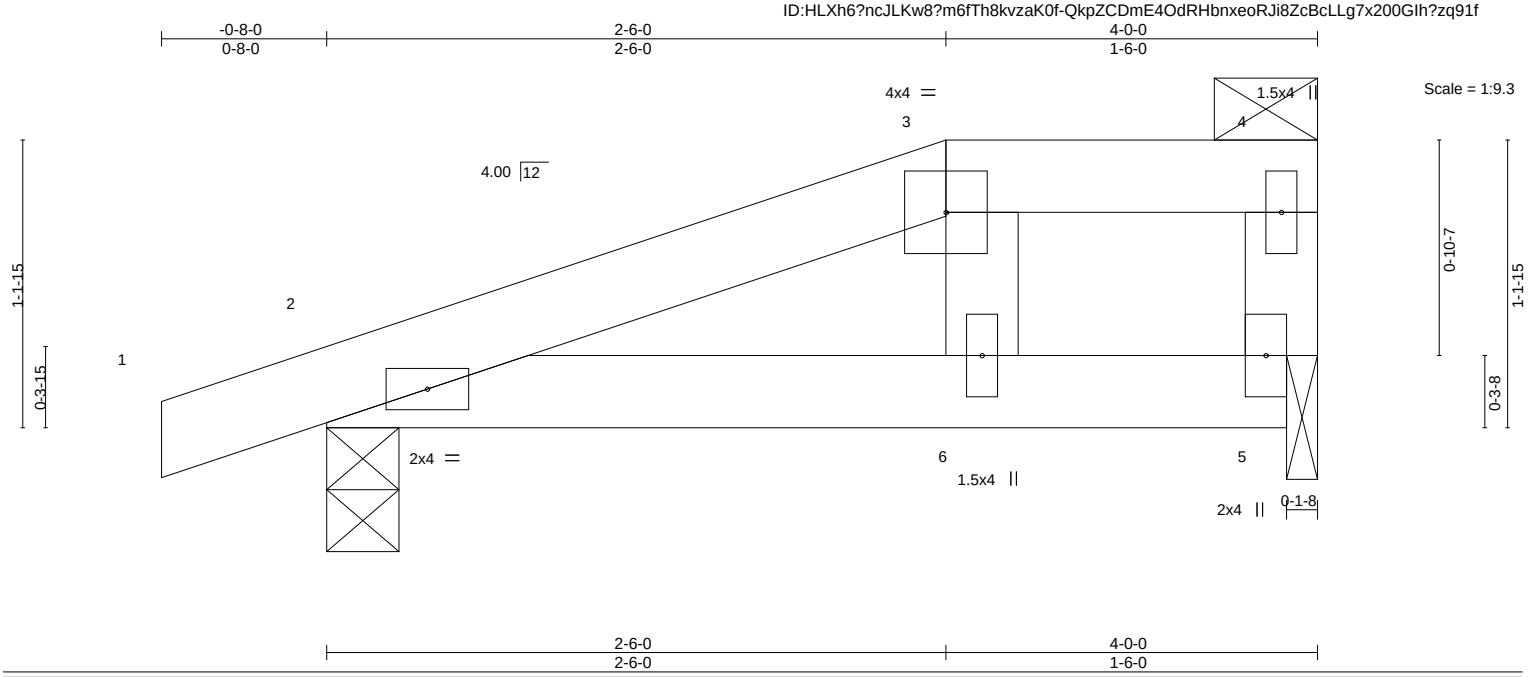

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.00	6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	2-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		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, 5=151/0-1-8
Max Horz 2=35(LC 5)
Max Uplift 2=-45(LC 4), 5=-16(LC 4)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
8) Girder carries tie-in span(s): 2-6-0 from 0-0-0 to 4-6-0
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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

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Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	SJ1	MONO TRUSS	1	1	I36003572
					Job Reference (optional)

84 Components, Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Jan 30 13:35:48 2019 Page 1
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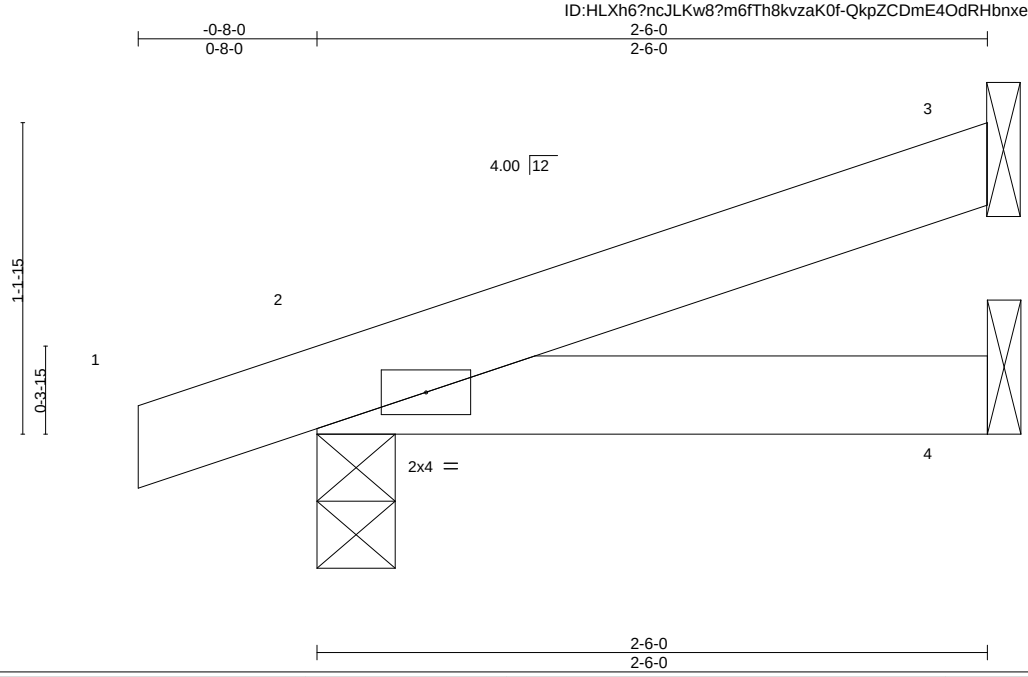

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	2-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	2-4	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		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, 4=23/Mechanical
Max Horz 2=36(LC 8)
Max Uplift 3=-27(LC 12), 2=-36(LC 8)
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=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.

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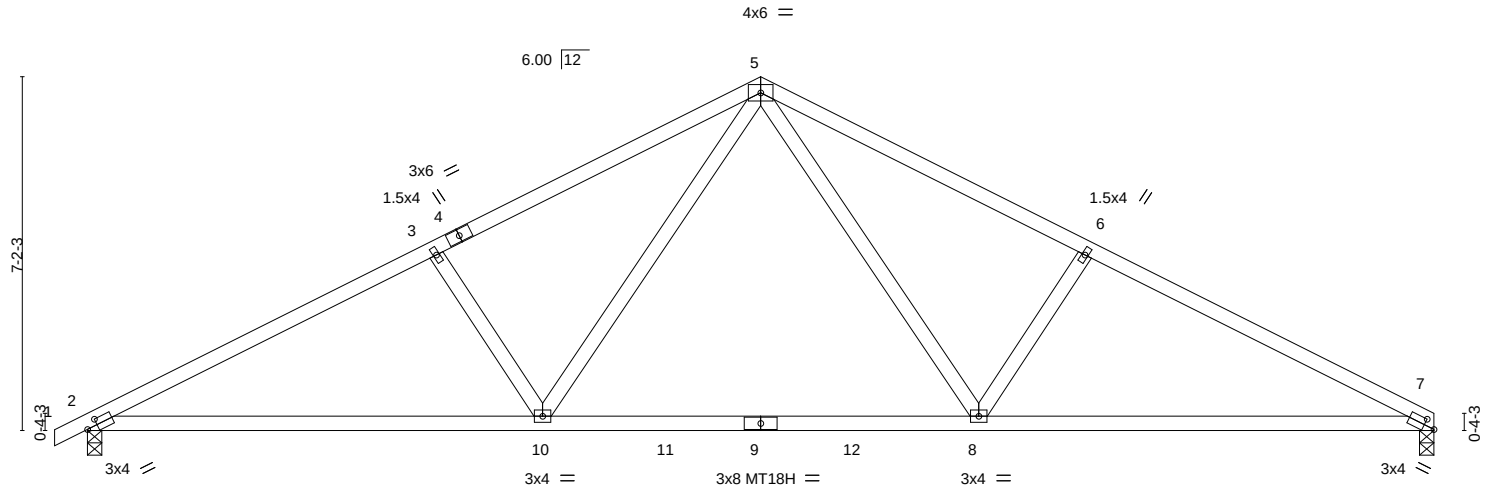
Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	T1A	COMMON	4	1	I36003573
					Job Reference (optional)

84 Components, Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Jan 30 13:35:49 2019 Page 1
ID:B86d_O3qmX394qlcAhGzWryKJF9-uxMxPZnsrilIvlM8CVyYEL6dD0UzPW5CFg0sDRzq91e

-0-8-0 7-1-0 13-8-0 20-3-0 27-4-0
0-8-0 7-1-0 6-7-0 6-7-0 7-1-0

Scale = 1:46.8



9-2-14 18-1-2 27-4-0
9-2-14 8-10-4 9-2-14

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

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	0.80	Vert(LL)	-0.26	8-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.44	7-8	>731	180	MT18H	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 123 lb	FT = 20%

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

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

REACTIONS. (lb/size) 7=1081/0-3-8, 2=1131/0-3-8
Max Horz 2=106(LC 16)
Max Uplift 7=-60(LC 13), 2=-74(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1893/337, 3-5=-1686/352, 5-6=-1688/352, 6-7=-1896/338
BOT CHORD 2-10=-223/1630, 8-10=-52/1072, 7-8=-225/1634
WEBS 3-10=-411/223, 5-10=-95/652, 5-8=-95/656, 6-8=-415/227

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; 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 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) 7, 2.

NORTH CAROLINA PROFESSIONAL SEAL 044925 ENGINEER SCOTT M. SEVIER

January 31,2019

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	T1AV	SPECIAL	3	1	I36003574
					Job Reference (optional)

84 Components, Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Jan 30 13:35:50 2019 Page 1
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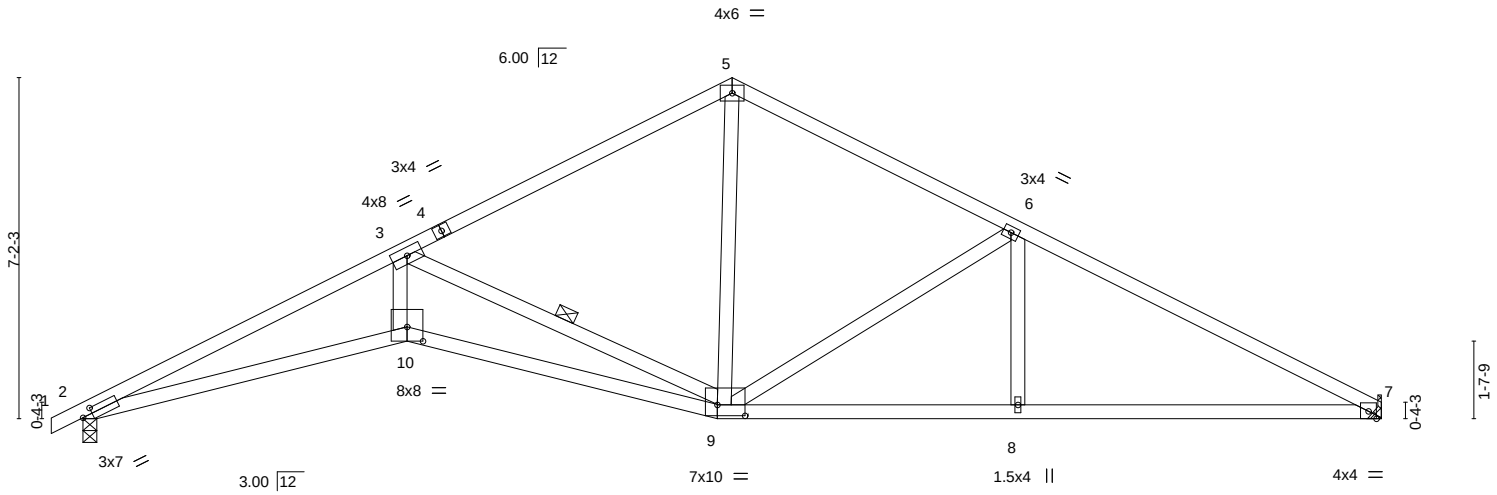
-0-8-0 6-9-14 13-8-0 19-8-3 27-4-0
0-8-0 6-9-14 6-10-2 6-0-3 7-7-13

Scale = 1:48.5



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], [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	0.63	Vert(LL)	-0.25	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.52	9-10	>631	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.26	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							Weight: 127 lb	FT = 20%

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

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

REACTIONS. (lb/size) 7=1093/Mechanical, 2=1134/0-3-8
Max Horz 2=107(LC 16)
Max Uplift 7=-61(LC 13), 2=-72(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3623/552, 3-5=-1362/288, 5-6=-1320/292, 6-7=-1913/321
BOT CHORD 2-10=-438/3282, 9-10=-450/3432, 8-9=-199/1656, 7-8=-199/1656
WEBS 3-10=-138/1738, 3-9=-2447/419, 5-9=-98/743, 6-9=-673/176, 6-8=0/301

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master	
19837-19837A	T1B	ROOF TRUSS	6	1	Job Reference (optional)	I36003575

84 Components, Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Jan 30 13:35:51 2019 Page 1
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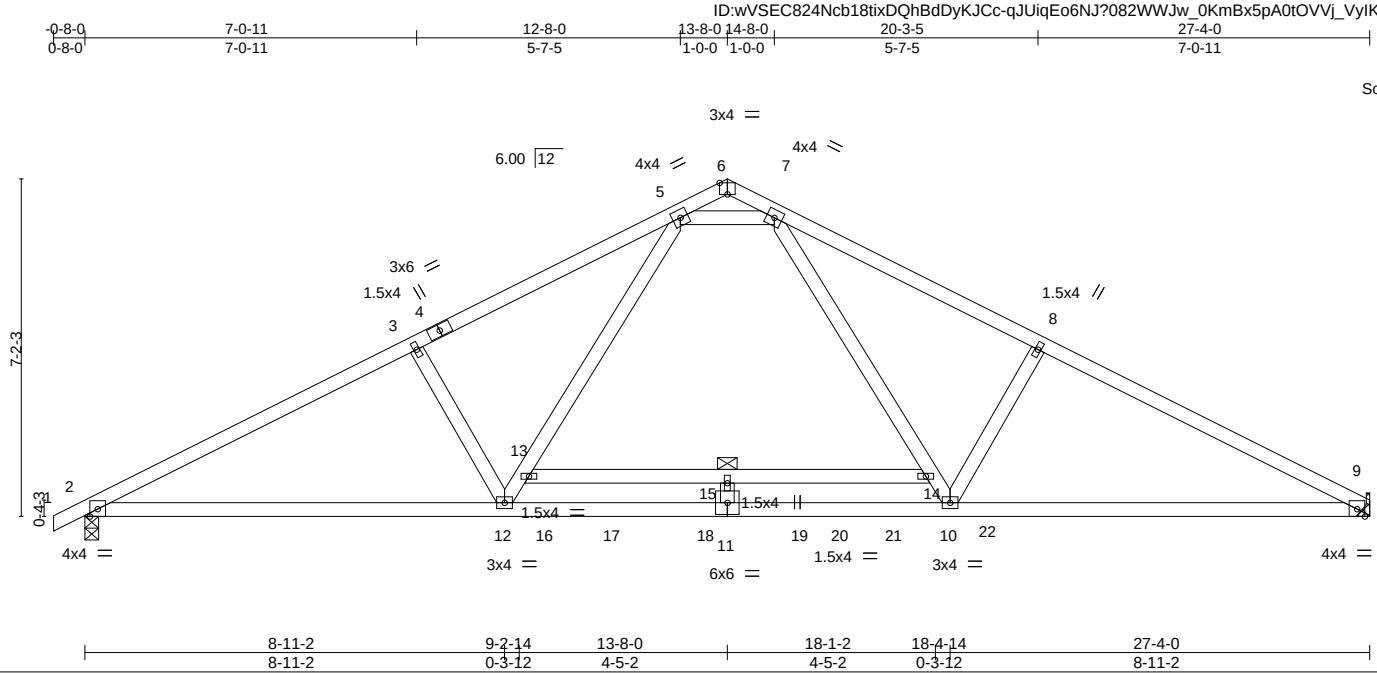

Plate Offsets (X,Y)-- [6:0-2-0,Edge]

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	0.90	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
Max Horz 2=106(LC 16)
Max Uplift 9=-60(LC 13), 2=-74(LC 12)
Max Grav 9=1119(LC 33), 2=1169(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1979/329, 3-5=-1798/352, 7-8=-1801/353, 8-9=-1983/330
BOT CHORD 2-12=-214/1704, 11-12=-78/1221, 10-11=-78/1221, 9-10=-217/1709
WEBS 3-12=-405/204, 8-10=-409/208, 12-13=-83/648, 5-13=-80/673, 5-7=-1289/407, 7-14=-81/677, 10-14=-84/653

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 2.
7) Load case(s) 28, 29, 30, 31, 32, 33 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
8) MULTIPLE LOADCASES – This design is the composite result of multiple load cases.
9) User moving load cases exist: Review the load cases for details.
10) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.
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 Except:
28) 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)
29) 1st User Defined Moving Load - User defined: Lumber Increase=1.15, Plate Increase=1.15

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Continued on page 2

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LOAD CASE(S)

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)

30) 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)

31) 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)

32) 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)

33) 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 Vault Master
19837-19837A	T1BV	ROOF TRUSS	3	1	I36003576
					Job Reference (optional)

84 Components, Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Jan 30 13:35:52 2019 Page 1
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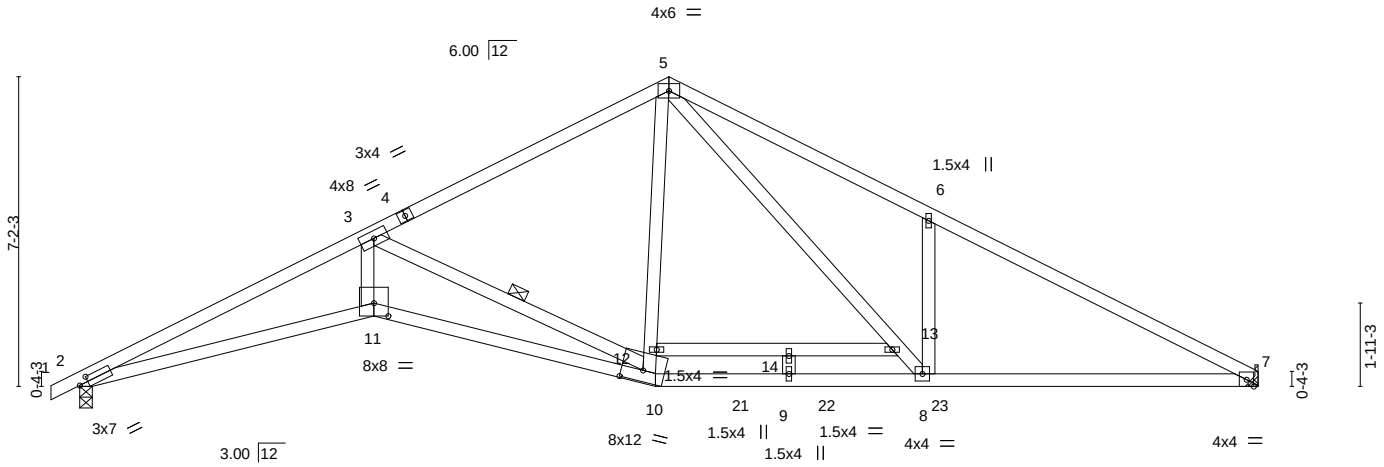

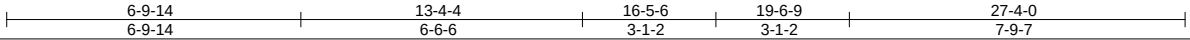

Plate Offsets (X,Y)-- [2:0-2-8,0-1-8], [10:0-6-0,0-3-2], [11:0-4-0,0-3-10]

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	0.66	Vert(LL)	-0.25	10-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.53	10-11	>617	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-AS							Weight: 138 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
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.
WEBS 1 Row at midpt 3-10

REACTIONS. (lb/size) 7=1093/Mechanical, 2=1134/0-3-8
Max Horz 2=107(LC 16)
Max Uplift 7=-61(LC 13), 2=-72(LC 12)
Max Grav 7=1140(LC 32), 2=1162(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3732/551, 3-5=-1428/288, 5-6=-2044/460, 6-7=-2020/322
BOT CHORD 2-11=-437/3380, 10-11=-449/3534, 9-10=-48/1186, 8-9=-48/1186, 7-8=-200/1751
WEBS 3-11=-137/1782, 3-10=-2492/418, 10-12=-10/446, 5-12=-6/460, 5-13=-220/891, 8-13=-229/879, 6-8=-460/236

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
8) Load case(s) 28, 29, 30, 31, 32 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
9) MULTIPLE LOADCASES – This design is the composite result of multiple load cases.
10) User moving load cases exist: Review the load cases for details.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.
13) 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)

28) User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60(F), 5-7=-60(F), 11-18=-20(F), 10-11=-20(F), 10-15=-20(F)

29) 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), 11-18=-20(F), 10-11=-20(F), 10-21=-50(F=-20), 15-21=-20(F)

30) 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), 11-18=-20(F), 10-11=-20(F), 10-21=-20(F), 21-22=-50(F=-20), 15-22=-20(F)

31) 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), 11-18=-20(F), 10-11=-20(F), 10-22=-20(F), 22-23=-50(F=-20), 15-23=-20(F)

32) 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), 11-18=-20(F), 10-11=-20(F), 10-22=-20(F), 8-22=-50(F=-20), 8-15=-20(F)

Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	T1GEA	GABLE	1	1	I36003577
					Job Reference (optional)

84 Components, Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Jan 30 13:35:54 2019 Page 1
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0-8-0 8-4-0 10-8-0 8-4-0

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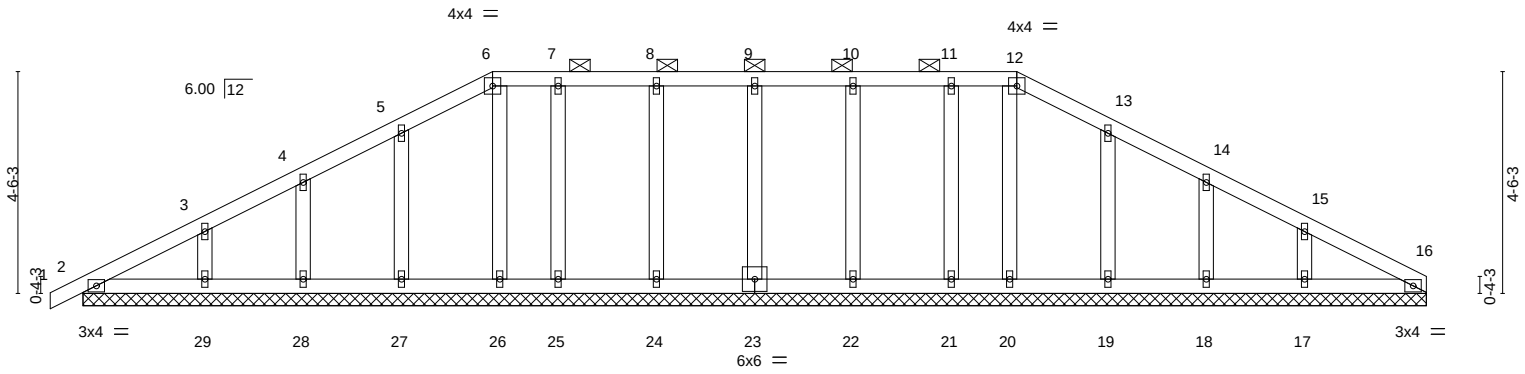

8-4-0 19-0-0 27-4-0
8-4-0 10-8-0 8-4-0

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=68(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 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=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 23, 24, 25, 27, 28, 29, 22, 21, 19, 18, 17.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	T1SA	HIP	1	1	I36003578
					Job Reference (optional)

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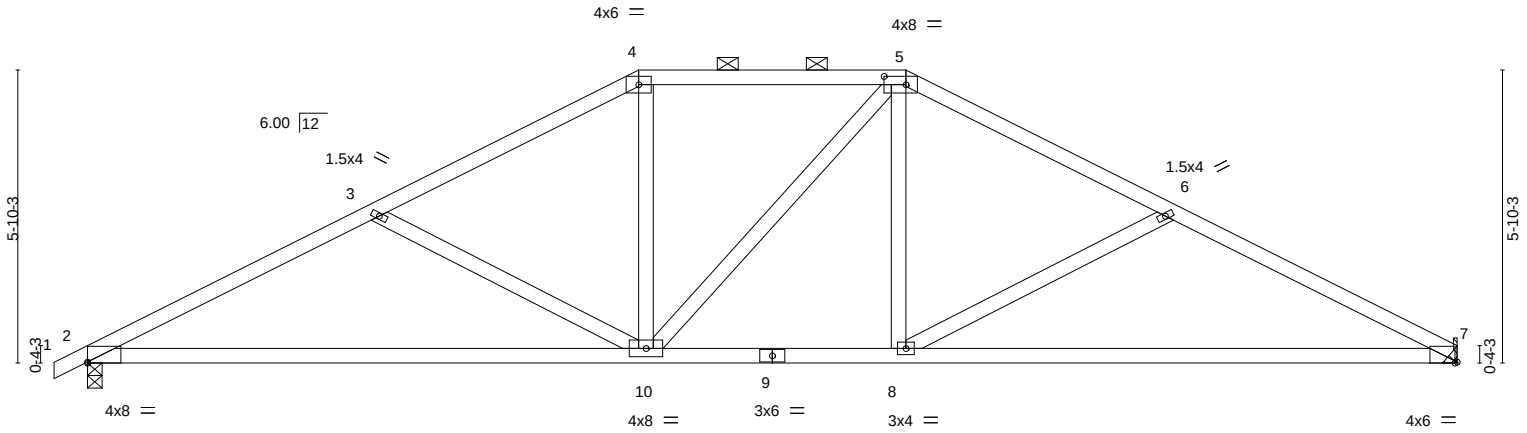
ID:zZsCWIrF?AAdyPXMHspcFAzaK39-j4kCgcrdRYVRdgqHYm3yUcLgfQa6pCm4ecTAR5zq91Y

-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 = 1:46.0



11-0-0	16-4-0	27-4-0
11-0-0	5-4-0	11-0-0

Plate Offsets (X,Y)-- [2:0-0-0,0-0-4], [5:0-5-4,0-2-0], [7:0-0-8,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	0.67	Vert(LL)	-0.30	8-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.65	8-13	>507	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							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, except 2-0-0 oc purlins (4-6-6 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 7=1093/Mechanical, 2=1134/0-3-8
Max Horz 2=88(LC 12)
Max Uplift 7=-45(LC 13), 2=-56(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1948/357, 3-4=-1568/275, 4-5=-1339/280, 5-6=-1569/276, 6-7=-1951/358
BOT CHORD 2-10=-247/1718, 8-10=-80/1339, 7-8=-248/1721
WEBS 3-10=-439/189, 4-10=0/426, 5-8=0/427, 6-8=-442/190

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	T1SAGE	GABLE	1	1	I36003579
					Job Reference (optional)

84 Components, Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Jan 30 13:35:56 2019 Page 1
ID:B86d_O3qmX394qlcAhGzWryKJF9-BHHatysFCsdIFqOU6UaB1quw2q1zYj?EsGCjzXzq91X

-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

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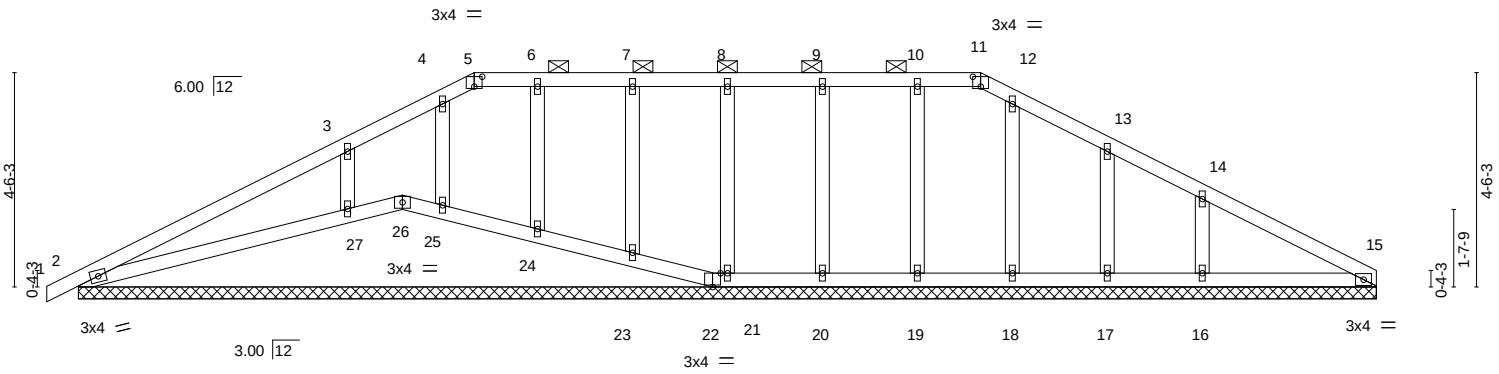

6-9-14 13-4-4 27-4-0
6-9-14 6-6-6 13-11-12

Plate Offsets (X,Y)-- [5:0-2-0,0-2-8], [11:0-2-0,0-2-8], [22:0-2-0,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	0.38	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=69(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 21, 23, 24, 20, 19, 17, 16 except 26=-124(LC 3), 27=-103(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 15, 2, 26, 22, 21, 23, 24, 25, 20, 19, 18, 17 except 27=516(LC 1), 16=299(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-27=-339/188

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 21, 23, 24, 20, 19, 17, 16 except (jt=lb) 26=124, 27=103.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 26, 23, 24, 25, 27.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	T1SAV	SPECIAL	1	1	I36003580 Job Reference (optional)

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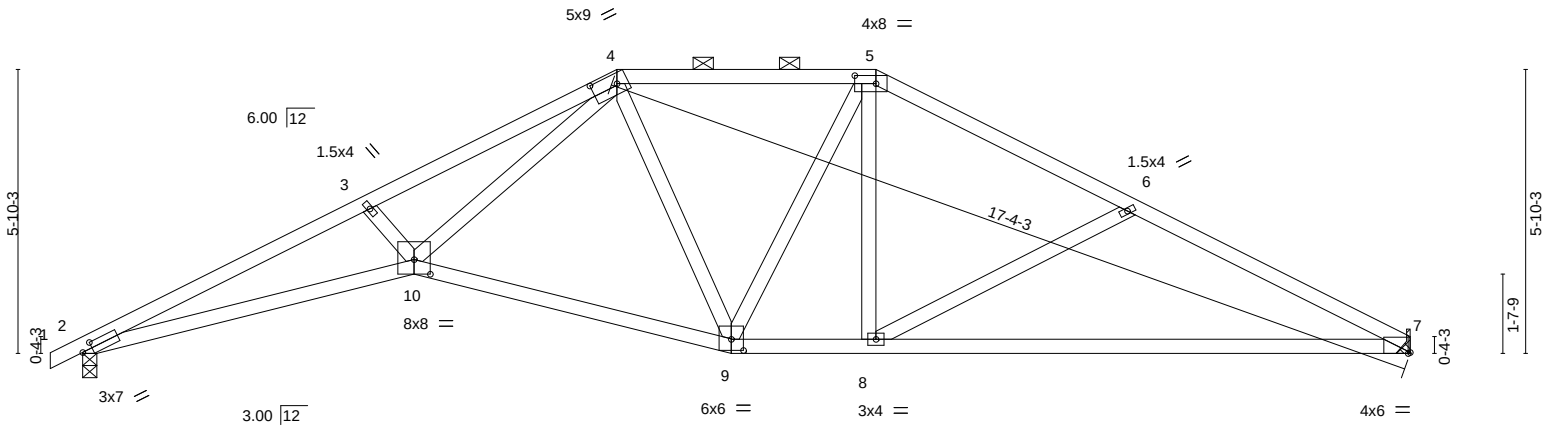
ID:szsw8EugTRQU_KE_39N54rytZYo-fTrz5Ittz9l9tzzggB5QZ1R1qEEsHzHN5wyHVzzq91W

-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 = 1:47.4



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], [7:0-0-8,Edge], [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	0.63	Vert(LL)	-0.29	8-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.65	8-13	>507	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.21	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							Weight: 132 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
7-9: 2x4 SP No.1
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-8-7 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 7=1093/Mechanical, 2=1134/0-3-8
Max Horz 2=88(LC 12)
Max Uplift 7=-44(LC 13), 2=-55(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3649/533, 3-4=-3466/530, 4-5=-1334/285, 5-6=-1575/273, 6-7=-1955/356
BOT CHORD 2-10=-428/3308, 9-10=-124/1513, 8-9=-77/1345, 7-8=-247/1724
WEBS 3-10=-266/164, 4-10=-266/2170, 4-9=-369/86, 5-8=0/484, 6-8=-439/192

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) 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 100 lb uplift at joint(s) 7, 2.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

NORTH CAROLINA PROFESSIONAL SEAL 044925 ENGINEER SCOTT M. SEVIER

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Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	T2	FINK	10	1	I36003581
					Job Reference (optional)

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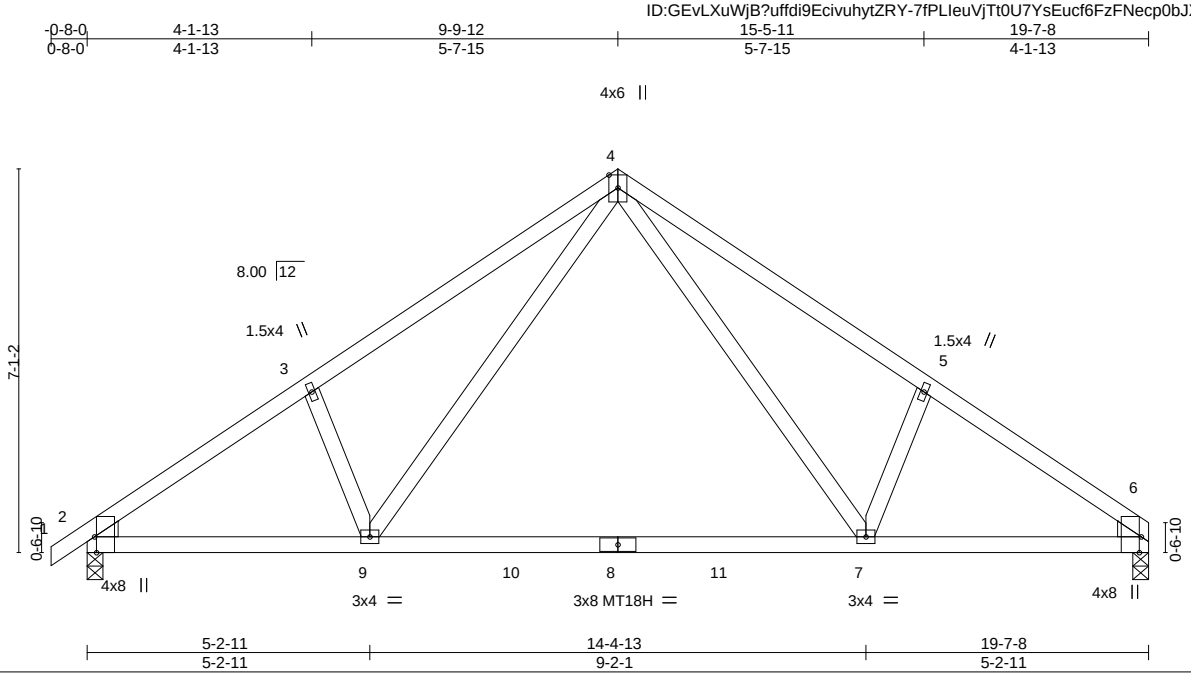

Plate Offsets (X,Y)-- [2:0-0-9,0-0-13], [2:0-1-1,0-5-2], [2:0-3-8,Edge], [6:0-0-9,0-0-13], [6:0-1-1,0-5-2], [6:0-3-8,Edge]

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	MT18H	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, 6=772/0-3-8
Max Horz 2=146(LC 9)
Max Uplift 2=-49(LC 12), 6=-35(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1160/116, 3-4=-1098/192, 4-5=-1103/193, 5-6=-1163/117
BOT CHORD 2-9=-93/988, 7-9=0/594, 6-7=-46/886
WEBS 4-9=-78/556, 4-7=-80/562

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; 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 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) 2, 6.

January 31,2019

ENGINEERING BY TRENCO
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Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master	
19837-19837A	T2GE	GABLE	1	1	Job Reference (optional)	I36003582

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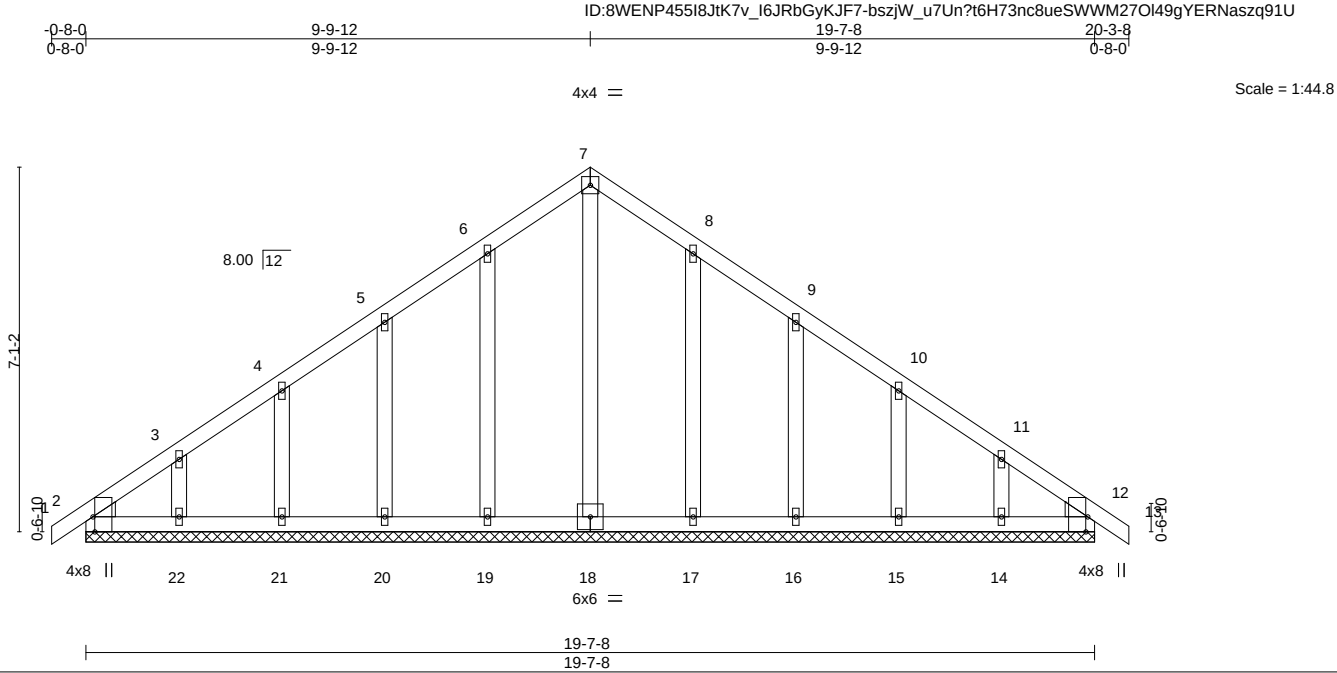

Plate Offsets (X,Y)-- [2:0-0-9,0-0-13], [2:0-1-1,0-5-2], [2:0-3-8,Edge], [12:0-0-9,0-0-13], [12:0-1-1,0-5-2], [12:0-3-8,Edge]

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	0.03	Vert(CT)	0.00	12	n/r	90		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.11	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=-147(LC 10)
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=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 19, 20, 21, 22, 17, 16, 15, 14.

January 31,2019

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Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	T3	COMMON	6	1	I36003583
					Job Reference (optional)

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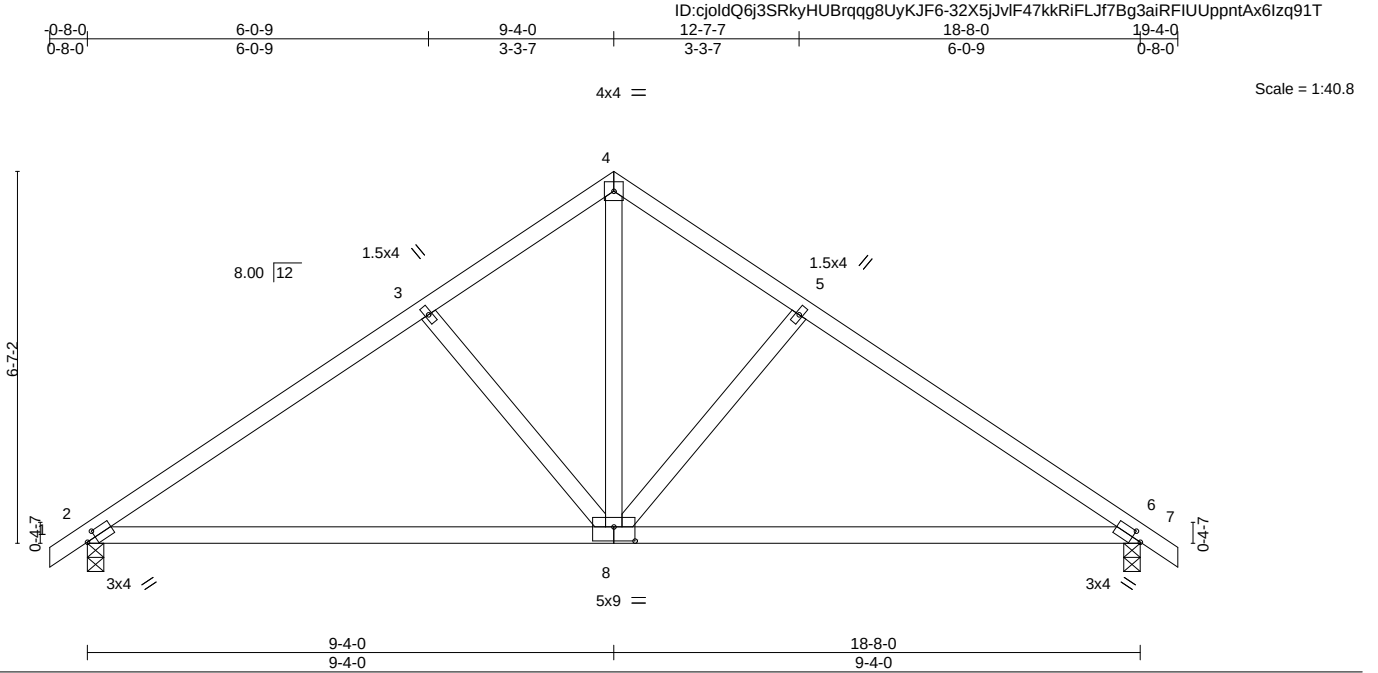

Plate Offsets (X,Y)-- [2:0-2-0,0-1-8], [6:0-2-0,0-1-8], [8:0-4-8,0-3-0]

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, 6=784/0-3-8
Max Horz 2=140(LC 11)
Max Uplift 2=-48(LC 12), 6=-48(LC 13)

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

TOP CHORD	2-3=-974/129, 3-4=-767/134, 4-5=-767/134, 5-6=-974/129
BOT CHORD	2-8=-59/749, 6-8=-19/748
WEBS	3-8=-296/163, 4-8=-107/656, 5-8=-297/163

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.

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Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	T3GE	GABLE	1	1	I36003584
					Job Reference (optional)

84 Components, Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Jan 30 13:36:01 2019 Page 1
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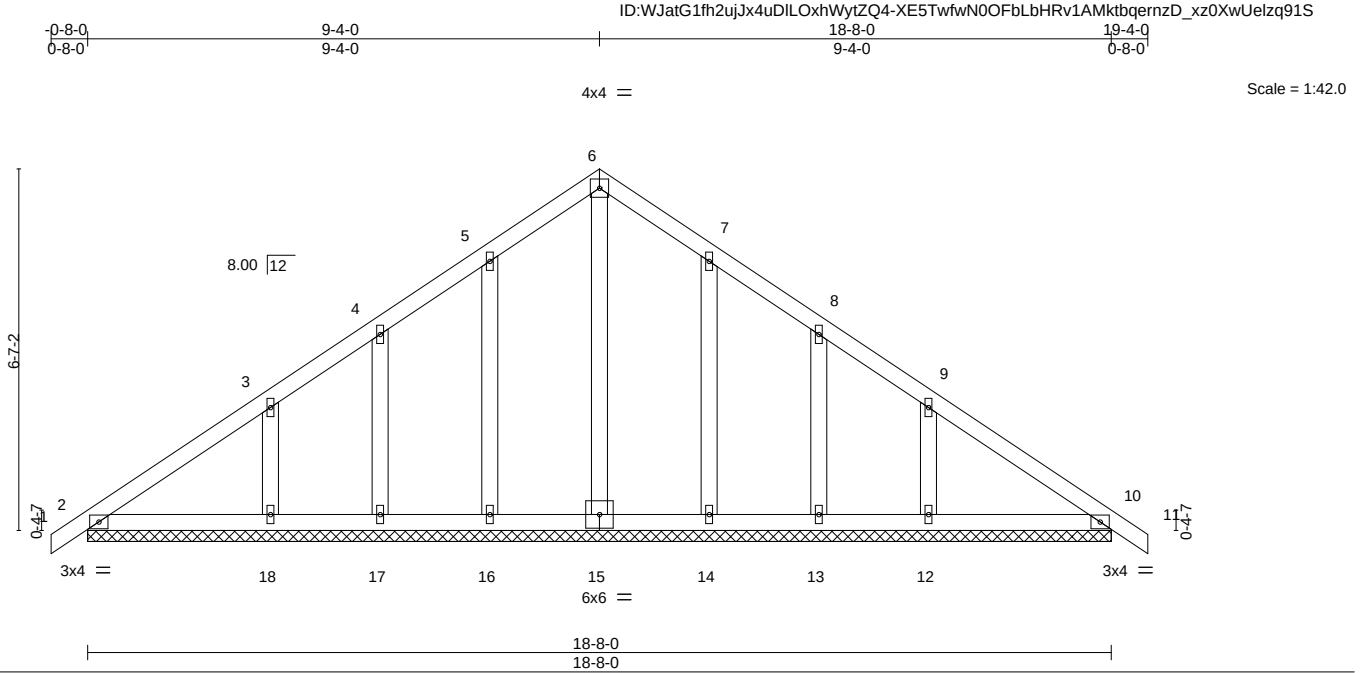

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.00	11	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.01	11	n/r	90		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	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=140(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 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=275(LC 19), 12=275(LC 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=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 17, 18, 14, 13, 12.

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Job	Truss	Truss Type	Qty	Ply	Winston B Vault Master
19837-19837A	T3GR	COMMON	1	2	I36003585
					Job Reference (optional)

84 Components, Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Wed Jan 30 13:36:02 2019 Page 1
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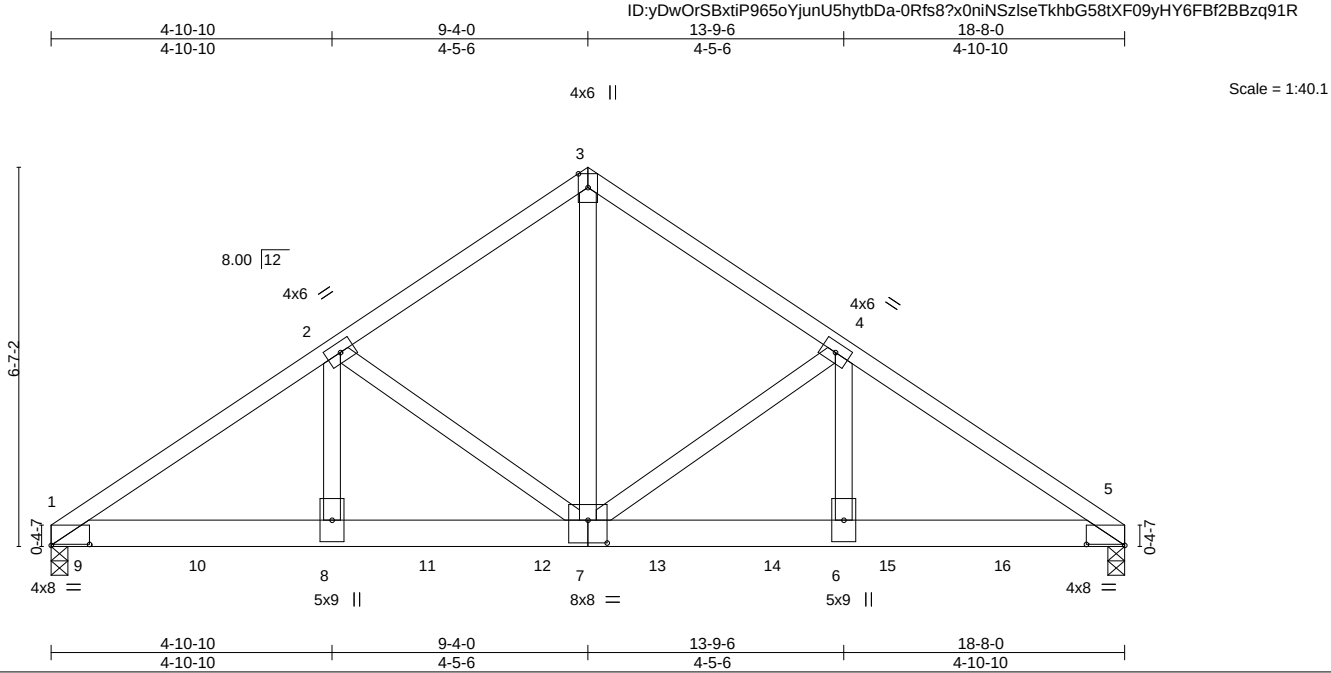

Plate Offsets (X,Y)-- [1:0-8-0,0-0-3], [5:0-8-0,0-0-3], [7:0-4-0,0-4-12]

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, 5=5301/0-3-8
Max Horz 1=-130(LC 4)
Max Uplift 1=-244(LC 8), 5=-214(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-8165/330, 2-3=-5491/278, 3-4=-5491/279, 4-5=-8009/329
BOT CHORD 1-8=-300/6710, 7-8=-300/6710, 6-7=-215/6580, 5-6=-215/6580
WEBS 3-7=-231/5743, 4-7=-2569/208, 4-6=-50/2677, 2-7=-2729/209, 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=120mph (3-second gust) Vasd=95mph; 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 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=244, 5=214.
8) 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.

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

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Continued on page 2

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LOAD CASE(S) Standard

Uniform Loads (plf)

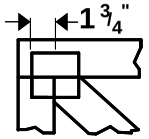
Vert: 1-3=-60, 3-5=-60, 1-5=-20

Concentrated Loads (lb)

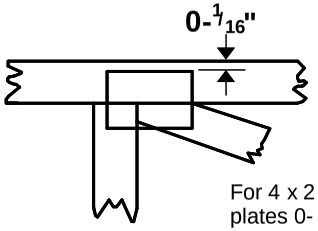
Vert: 8=-1132(F) 9=-1132(F) 10=-1132(F) 11=-1132(F) 12=-1132(F) 13=-1084(F) 14=-1084(F) 15=-1084(F) 16=-1084(F)

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.

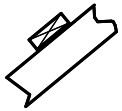
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

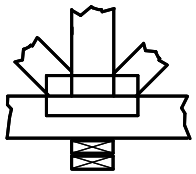
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

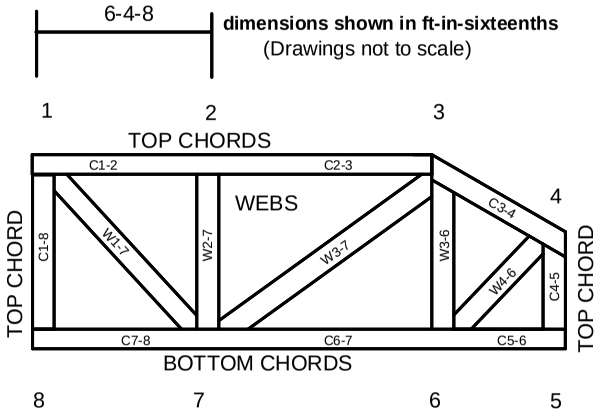


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.

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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.