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June 13, 2019

Virginia Carolina Builders
6212 Vicky Dr.
Raleigh, N.C. 27603

Re: Plan Review
Dave Galloway
1529 Aquilla Rd.
Benson, N.C.
30'x40' w/10'x40' LT Shelter

Dear Sirs:

I have reviewed the generic design drawings, as prepared by Dault Engineering, provided for the proposed building at subject location. When constructed as shown the building will meet the structural requirements of the North Carolina Residential Code, 2018 edition. The design wind speed for the site is 115 mph, exposure B.

The 10' x 40' open lean-to shall be constructed with 2-2x12 headers with nominal post spacing of 10' on center.

Sincerely,

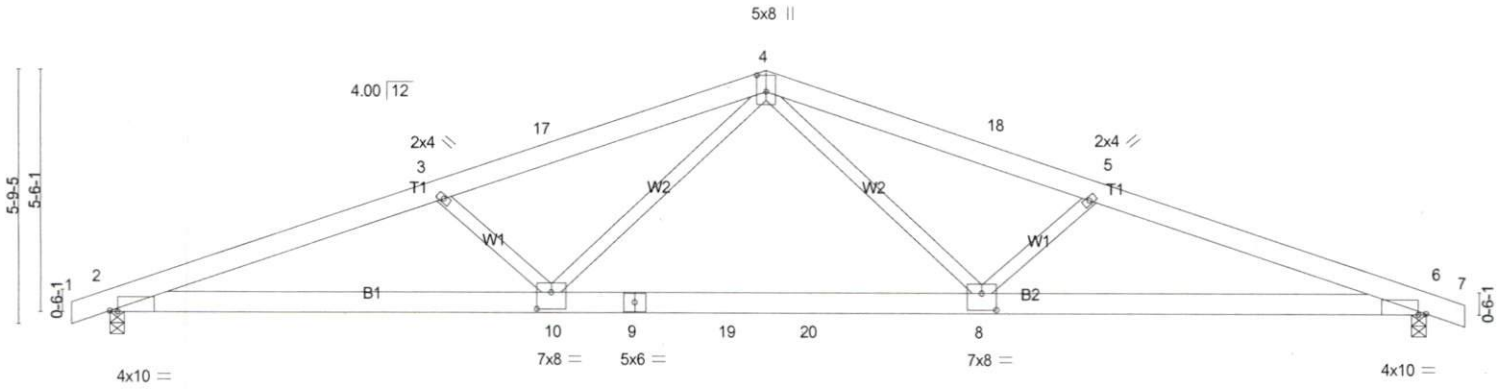
William A. Person, PE

Job	Truss	Truss Type	Qty	Ply	DAVE GALLAWAY 30X40
SP190617	T1	Common	9	1	Job Reference (optional)

Truss Builders, Inc., Morrisville, NC — Run: 8.220 s Jul 9 2018 Print: 8.220 s Jul 9 2018 MiTek Industries, Inc. Thu Jun 13 08:57:58 2019 Page 1
ID:8wdUJwpJzT7hhgz91hF2HJz6lzX-hisoMW3_9dZI?GBvwlagpXoL0qRLmTkJlxntxnz6lwd

-0-10-8	7-7-11	15-0-0	22-4-5	30-0-0	30-10-8
0-10-8	7-7-11	7-4-5	7-4-5	7-7-11	0-10-8

Scale = 1:50.4



10-1-2	19-10-14	30-0-0
10-1-2	9-9-11	10-1-2

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

LOADING (psf)		SPACING-	4-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.32	8-10	>999	240	MT20	244/190
TCDL	5.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.52	8-10	>687	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.59	Horz(CT)	0.09	6	n/a	n/a		
BCDL	5.0	Code IBC2015/TPI2014		Matrix-MR							Weight: 179 lb	FT = 6%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.1D
WEBS 2x4 SP No.3

BRACING-
TOP CHORD 2-0-0 oc purlins (2-9-5 max.)
(Switched from sheeted: Spacing > 2-0-0).
BOT CHORD Rigid ceiling directly applied or 6-9-8 oc bracing.

REACTIONS. (lb/size) 2=1766/0-4-0 (min. 0-2-2), 6=1766/0-4-0 (min. 0-2-2)
Max Horz 2=151(LC 12)
Max Uplift2=-690(LC 8), 6=-690(LC 9)
Max Grav 2=2084(LC 2), 6=2084(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5016/1579, 3-17=-4482/1367, 4-17=-4371/1386, 4-18=-4371/1387, 5-18=-4482/1368, 5-6=-5016/1580
BOT CHORD 2-10=-1492/4701, 9-10=-845/3194, 9-19=-845/3194, 19-20=-845/3194, 8-20=-845/3194, 6-8=-1373/4701
WEBS 4-8=-447/1425, 5-8=-823/479, 4-10=-446/1425, 3-10=-823/478

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=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
6) Dead loads shown include weight of truss. Top chord dead load of 5.0 psf (or less) is not adequate for a shingle roof. Architect to verify adequacy of top chord dead load.
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 = 5.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=690, 6=690.
10) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
11) Magnitude of user added load(s) on this truss have been applied uniformly across all gravity load cases with no adjustments.
12) 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
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-80, 4-7=-80, 10-11=-20, 8-10=-60, 8-14=-20

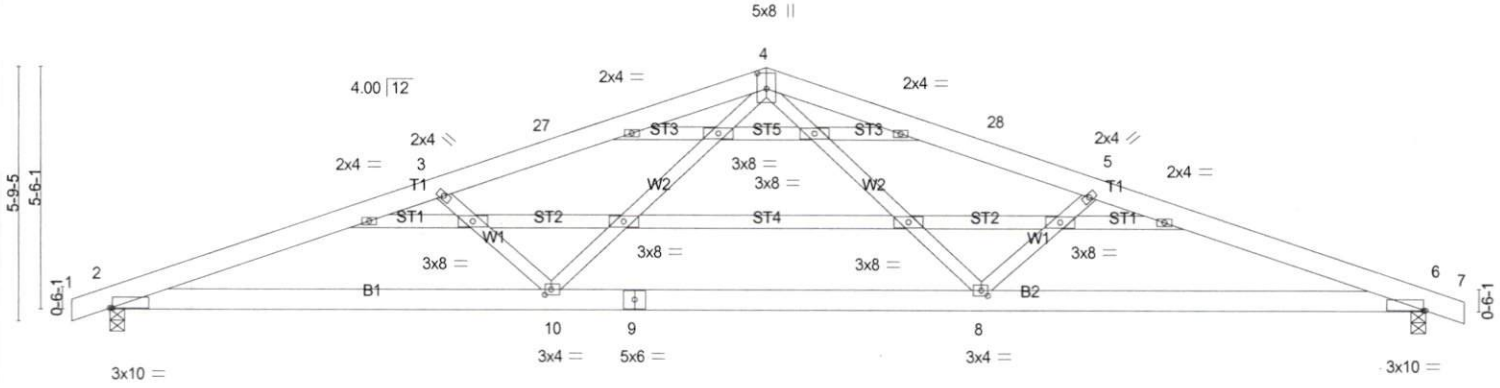
Job	Truss	Truss Type	Qty	Ply	DAVE GALLAWAY 30X40
SP190617	T1SG	GABLE	2	1	Job Reference (optional)

Truss Builders, Inc., Morrisville, NC

Run: 8.220 s Jul 9 2018 Print: 8.220 s Jul 9 2018 MiTek Industries, Inc. Thu Jun 13 08:57:59 2019 Page 1
ID:8wdUJwpJzT7hhgz91hF2HJz6lzX-AvQBZs4cwwh9dPl5UT5vMlLY1DoiVyoT_bXQTDz6lwc

-0-10-8	7-7-11	15-0-0	22-4-5	30-0-0	30-10-8
0-10-8	7-7-11	7-4-5	7-4-5	7-7-11	0-10-8

Scale = 1:50.4



10-1-2	19-10-14	30-0-0
10-1-2	9-9-11	10-1-2

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

LOADING (psf)		SPACING-	4-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.22	8-10	>999	240	MT20	244/190
TCDL	5.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.35	8-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.47	Horz(CT)	0.08	6	n/a	n/a		
BCDL	5.0	Code IBC2015/TPI2014		Matrix-MR							Weight: 216 lb	FT = 6%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.1D
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD 2-0-0 oc purlins (3-0-1 max.)
(Switched from sheeted: Spacing > 2-0-0).
BOT CHORD Rigid ceiling directly applied or 7-5-10 oc bracing.

REACTIONS. (lb/size) 2=1570/0-4-0 (min. 0-1-15), 6=1570/0-4-0 (min. 0-1-15)
Max Horz 2=-151(LC 13)
Max Uplift2=-608(LC 8), 6=-608(LC 9)
Max Grav 2=1888(LC 2), 6=1888(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4367/1308, 3-27=-3818/1090, 4-27=-3704/1108, 4-28=-3704/1109, 5-28=-3818/1090, 5-6=-4367/1308
BOT CHORD 2-10=-1237/4091, 9-10=-663/2758, 8-9=-663/2758, 6-8=-1118/4091
WEBS 4-8=-329/1143, 5-8=-855/492, 4-10=-329/1143, 3-10=-855/491

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=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
7) Dead loads shown include weight of truss. Top chord dead load of 5.0 psf (or less) is not adequate for a shingle roof. Architect to verify adequacy of top chord dead load.
8) Horizontal gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=608, 6=608.
12) This truss is designed in accordance with the 2015 International Building Code section 2306.1 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.