ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: Alexander
Michael Ryan Homes

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Albermarle,NC).

Pages or sheets covered by this seal: E10264428 thru E10264441

My license renewal date for the state of North Carolina is December 31, 2017.

North Carolina COA: C-0844

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

February 16,2017

Strzyzewski, Marvin

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

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	A1	Common Supported Gable	2	1	E10264428
					Job Reference (optional)

Builders FirstSource, Albemarle , NC 28001 — 7.640 s Apr 19 2016 MiTek Industries, Inc. Thu Feb 16 08:39:35 2017 Page 1

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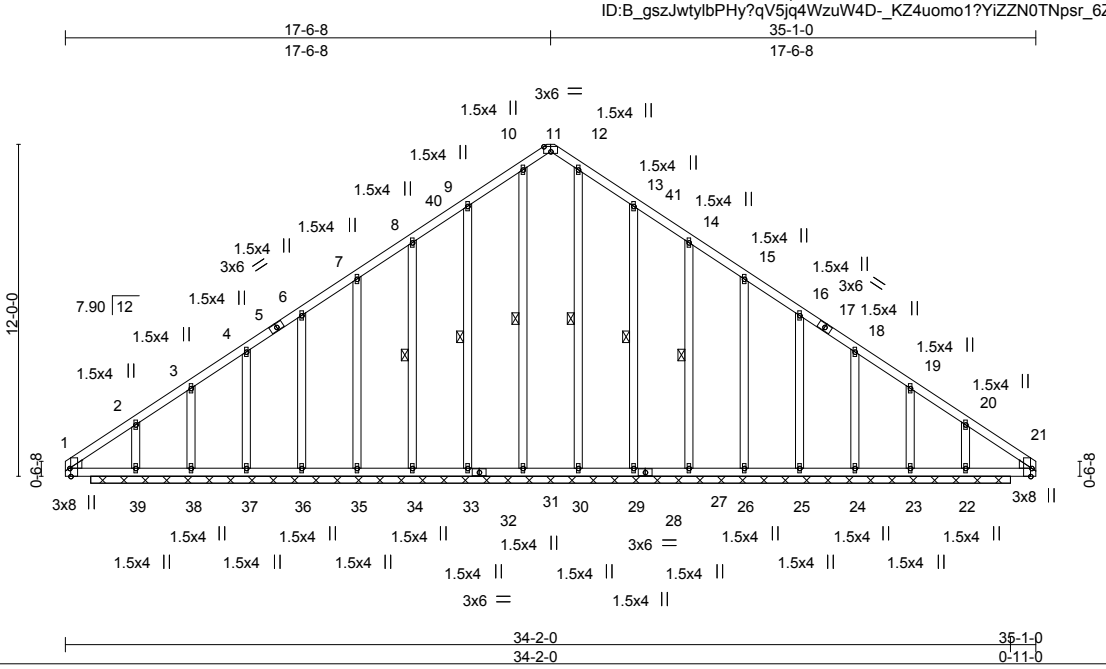


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [11:0-3-0,Edge], [21:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(TL)	0.01	22	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)								
BCDL	10.0										Weight: 266 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.2, Right: 2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 10-31, 9-33, 8-34, 12-30, 13-29, 14-27

REACTIONS. (lb/size) 31=232/33-3-0, 33=146/33-3-0, 34=162/33-3-0, 35=160/33-3-0, 36=157/33-3-0, 37=172/33-3-0, 38=113/33-3-0, 39=261/33-3-0, 30=232/33-3-0, 29=146/33-3-0, 27=162/33-3-0, 26=160/33-3-0, 25=157/33-3-0, 24=172/33-3-0, 23=113/33-3-0, 22=261/33-3-0

Max Horz 39=-269(LC 8)

Max Uplift 33=-60(LC 10), 34=-24(LC 10), 35=-27(LC 10), 36=-34(LC 10), 37=-11(LC 11), 38=-200(LC 9), 39=-117(LC 8), 29=-61(LC 11), 27=-24(LC 11), 26=-27(LC 11), 25=-34(LC 11), 24=-10(LC 10), 23=-188(LC 8), 22=-101(LC 9)

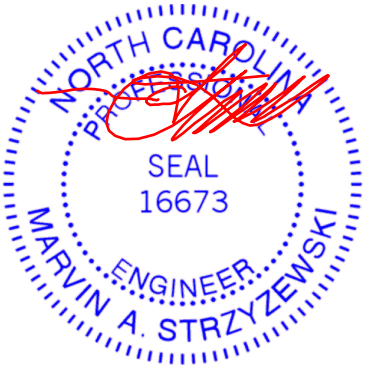
Max Grav 31=246(LC 3), 33=182(LC 3), 34=162(LC 1), 35=161(LC 14), 36=157(LC 1), 37=180(LC 14), 38=198(LC 8), 39=303(LC 14), 30=246(LC 4), 29=182(LC 4), 27=162(LC 1), 26=161(LC 15), 25=157(LC 1), 24=180(LC 15), 23=185(LC 9), 22=303(LC 15)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-133/169, 2-3=-142/196, 3-4=-65/158, 4-5=-39/158, 5-6=-33/166, 6-7=-4/201, 7-8=0/258, 8-40=0/299, 9-40=0/311, 9-10=0/395, 10-11=0/298, 11-12=0/298, 12-13=0/395, 13-41=0/311, 14-41=0/299, 14-15=0/258, 15-16=0/201, 16-17=-23/156, 17-18=-29/148, 18-19=-55/150, 19-20=-129/184, 20-21=-124/169
BOT CHORD	1-39=-138/140, 38-39=-129/132, 37-38=-129/132, 36-37=-129/132, 35-36=-129/132, 34-35=-129/132, 33-34=-129/132, 32-33=-129/132, 31-32=-129/132, 30-31=-129/132, 29-30=-129/132, 28-29=-129/132, 27-28=-129/132, 26-27=-129/132, 25-26=-129/132, 24-25=-129/132, 23-24=-129/132, 22-23=-129/132, 21-22=-129/132
WEBS	10-31=-206/0, 9-33=-142/129, 8-34=-122/73, 7-35=-120/80, 6-36=-119/80, 4-37=-129/77, 3-38=-96/117, 2-39=-197/84, 12-30=-206/0, 13-29=-142/129, 14-27=-122/73, 15-26=-120/80, 16-25=-119/80, 18-24=-129/77, 19-23=-96/111, 20-22=-197/84

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Corner(3) 0-1-8 to 3-7-14, Exterior(2) 3-7-14 to 17-8-0, Corner(3) 17-8-0 to 21-2-6 zone; cantilever 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) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
5) Unbalanced snow loads have been considered for this design.
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.



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Continued on page 2

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NOTES-

9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 33, 34, 35, 36, 37, 38, 39, 29, 27, 26, 25, 24, 23, and 22. This connection is for uplift only and does not consider lateral forces.

10) Non Standard bearing condition. Review required.

11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	A2	Common	6	1	E10264429
					Job Reference (optional)

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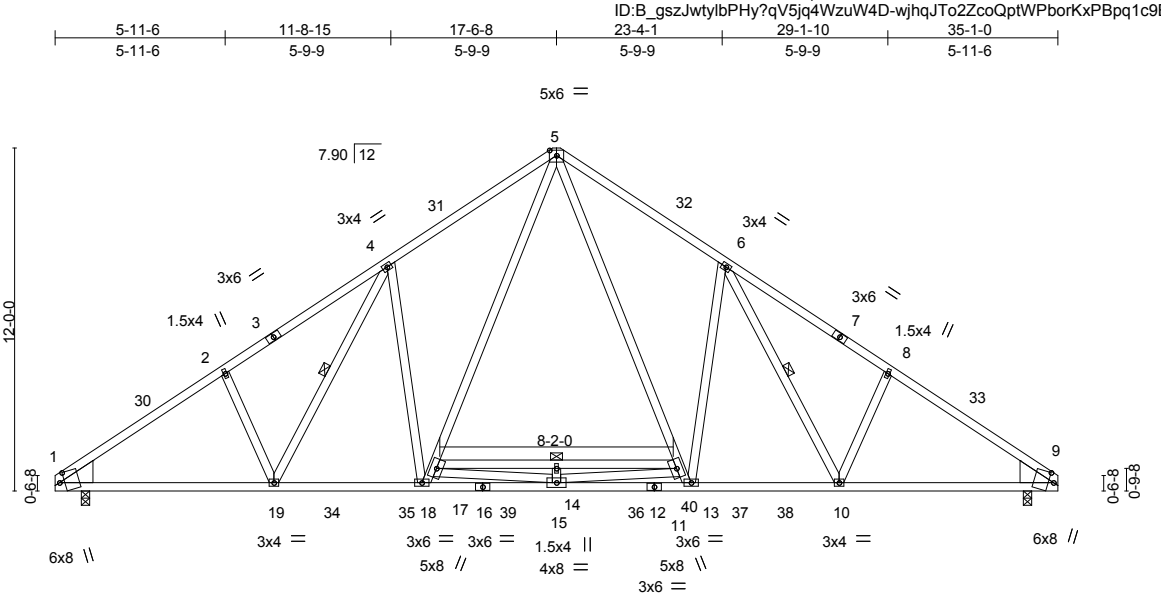


Plate Offsets (X,Y)-- [1:0-3-12,0-2-2], [9:0-3-12,0-2-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.25	14	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.78	Vert(TL)	-0.49	13-14	>860	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(TL)	0.11	9	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix-S)		Wind(LL)	0.07	18-19	>999	240	Weight: 248 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP No.2 *Except* 1-3,7-9: 2x4 SP DSS

BOT CHORD 2x4 SP No.2 *Except* 1-16,9-12: 2x4 SP DSS

WEBS 2x4 SP No.3

WEDGE

Left: 2x10 SP No.2, Right: 2x10 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.

BOT CHORD Rigid ceiling directly applied. Except: 5-1-0 oc bracing: 13-17

WEBS 1 Row at midpt 6-10, 4-19

REACTIONS. (lb/size) 1=1804/0-3-8, 9=1805/0-3-8
Max Horz 1=-264(LC 8)

FORCES. (lb) - Maximum Compression/Maximum Tension

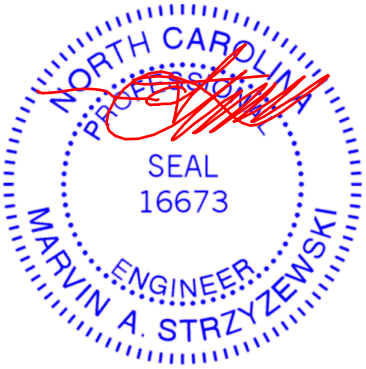
TOP CHORD 1-30=-2357/112, 2-30=-2284/129, 2-3=-2197/158, 3-4=-2152/193, 4-31=-2165/225, 5-31=-2058/255, 5-32=-2059/255, 6-32=-2166/225, 6-7=-2153/193, 7-8=-2198/158, 8-33=-2285/129, 9-33=-2358/112

BOT CHORD 1-19=-15/1819, 19-34=0/1784, 34-35=0/1784, 18-35=0/1784, 16-18=0/1409, 15-16=0/1409, 15-36=0/1408, 12-36=0/1408, 11-12=0/1408, 11-37=0/1785, 37-38=0/1785, 10-38=0/1785, 9-10=-15/1820, 17-39=-1156/0, 14-39=-1154/0, 14-40=-1154/0, 13-40=-1156/0

WEBS 5-13=-81/1068, 11-13=-156/798, 6-11=-428/218, 6-10=-80/116, 8-10=-79/143, 17-18=-156/795, 5-17=-82/1066, 4-18=-428/218, 4-19=-80/80, 2-19=-79/143, 14-15=-187/0, 13-15=0/1098, 15-17=0/1097

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-1-8 to 3-7-14, Interior(1) 3-7-14 to 17-8-0, Exterior(2) 17-8-0 to 21-2-6 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
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, with BCDL = 10.0psf.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	A3	Roof Special	5	1	E10264430

Job Reference (optional)

Builders FirstSource, Albemarle , NC 28001

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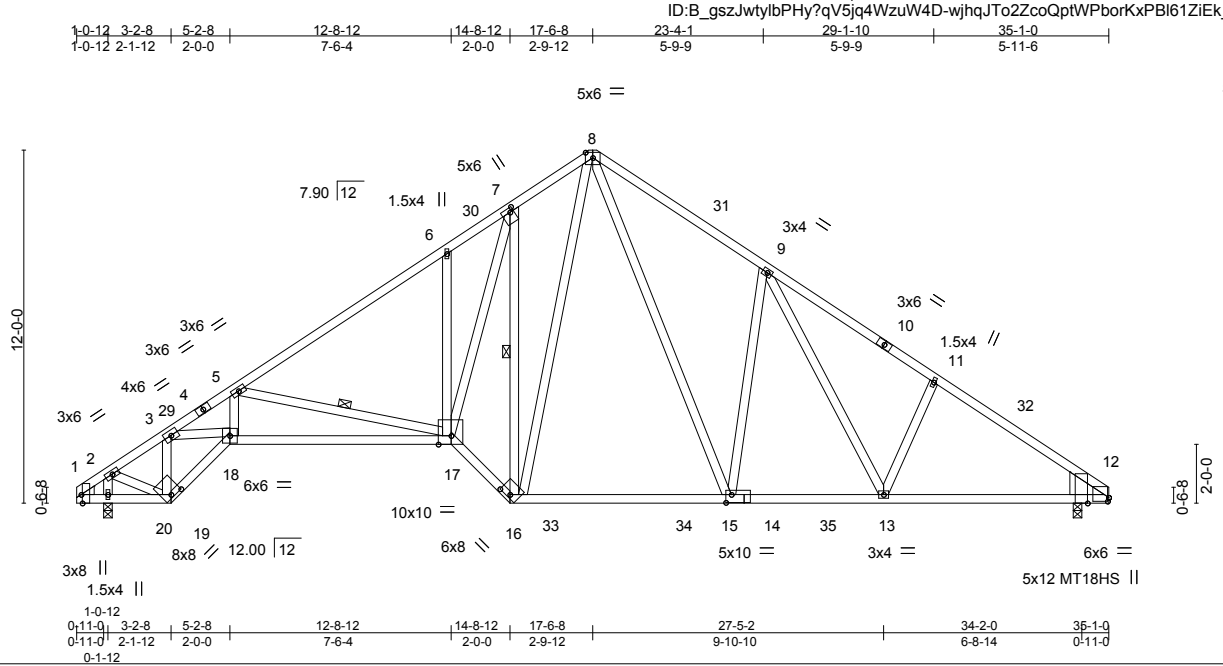


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [7:0-1-12,0-1-8], [12:0-0-8,0-1-9], [12:0-2-5,Edge], [14:0-2-4,0-3-4], [16:0-4-8,0-1-4], [17:0-5-4,Edge], [19:0-4-8,0-1-4]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.30	15-16	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	1.00	Vert(TL)	-0.65	17-18	>627	240	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Horz(TL)	0.37	12	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix-S)		Wind(LL)	0.12	17-18	>999	240	Weight: 248 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP No.2 *Except* 10-12: 2x4 SP No.1

BOT CHORD 2x4 SP No.2 *Except* 12-14: 2x4 SP DSS

WEBS 2x4 SP No.3

WEDGE

Left: 2x4 SP No.2, Right: 2x10 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.

BOT CHORD Rigid ceiling directly applied.

WEBS 1 Row at midpt 5-17, 7-16

REACTIONS. (lb/size) 12=1568/0-3-8, 20=1530/0-3-8

Max Horz 20=-264(LC 8)

Max Uplift 20=-6(LC 10)

FORCES. (lb) - Maximum Compression/Maximum Tension

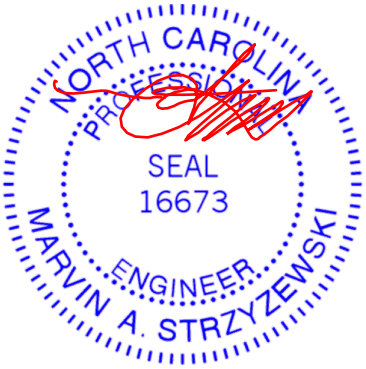
TOP CHORD 1-2=-96/1, 2-3=-1505/140, 3-29=-3913/260, 4-29=-3897/267, 4-5=-3845/274, 5-6=-2225/221, 6-30=-2201/328, 7-30=-2133/342, 7-8=-1478/318, 8-31=-1672/339, 9-31=-1778/305, 9-10=-1799/267, 10-11=-1849/240, 11-32=-1929/205, 12-32=-2001/178

BOT CHORD 1-20=0/74, 19-20=-246/283, 18-19=-109/1578, 17-18=-154/3198, 16-17=0/1691, 16-33=0/1093, 33-34=0/1093, 15-34=0/1093, 14-15=0/1465, 14-35=0/1465, 13-35=0/1465, 12-13=-75/1542

WEBS 8-15=-141/865, 3-18=-106/2194, 5-18=-1/971, 5-17=-1475/184, 6-17=-403/199, 7-17=-126/2064, 9-15=-444/216, 9-13=-68/145, 11-13=-124/133, 7-16=-1607/115, 8-16=-126/691, 2-20=-1361/189, 3-19=-1586/80, 2-19=-78/1226

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-1-8 to 3-7-14, Interior(1) 3-7-14 to 17-8-0, Exterior(2) 17-8-0 to 21-2-6 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20. This connection is for uplift only and does not consider lateral forces.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.



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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	A4	Roof Special	2	1	E10264431

Job Reference (optional)

Builders FirstSource, Albemarle , NC 28001

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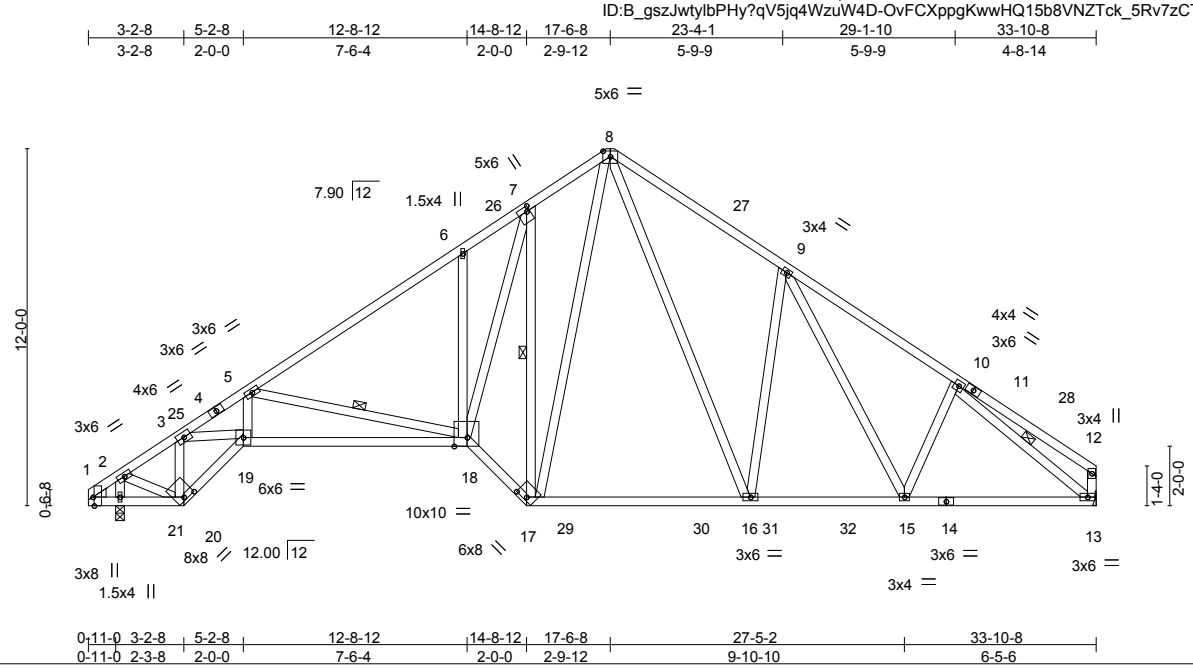


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [7:0-2-0,0-1-4], [17:0-4-8,0-1-4], [18:0-5-4,Edge], [20:0-4-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.26	16-17	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.98	Vert(TL)	-0.60	18-19	>648	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(TL)	0.34	13	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix-S)		Wind(LL)	0.12	18-19	>999	240	Weight: 249 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-18, 7-17, 10-13

REACTIONS. (lb/size) 13=1473/Mechanical, 21=1509/0-3-8
Max Horz 21=263(LC 9)
Max Uplift 21=-6(LC 10)

FORCES. (lb) - Maximum Compression/Maximum Tension

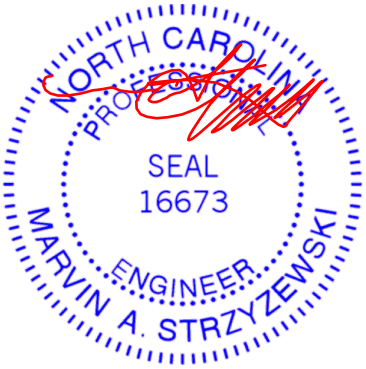
TOP CHORD 1-2=-94/1, 2-3=-1481/137, 3-25=-3849/290, 4-25=-3838/296, 4-5=-3781/303, 5-6=-2180/226, 6-26=-2156/334, 7-26=-2088/347, 7-8=-1443/314, 8-27=-1601/335, 9-27=-1703/300, 9-10=-1831/262, 10-11=-155/80, 11-28=-156/77, 12-28=-256/64, 12-13=-230/81

BOT CHORD 1-21=0/73, 20-21=-245/264, 19-20=-111/1553, 18-19=-205/3146, 17-18=0/1648, 17-29=0/1063, 29-30=0/1063, 16-30=0/1063, 16-31=-21/1402, 31-32=-21/1402, 15-32=-21/1402, 14-15=-99/1447, 13-14=-99/1447

WEBS 8-16=-136/793, 3-20=-1561/100, 3-19=-135/2159, 5-19=-2/958, 5-18=-1461/204, 6-18=-404/200, 7-18=-155/2027, 7-17=-1573/136, 9-16=-423/211, 10-13=-1745/124, 9-15=-58/156, 10-15=-23/132, 8-17=-124/695, 2-21=-1342/188, 2-20=-76/1206

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-1-8 to 3-6-5, Interior(1) 3-6-5 to 17-8-0, Exterior(2) 17-8-0 to 21-0-13 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
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, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 21. This connection is for uplift only and does not consider lateral forces.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.



February 16,2017

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

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	A5	Common	5	1	E10264432

Job Reference (optional)

Builders FirstSource, Albemarle , NC 28001

7.640 s Apr 19 2016 MiTek Industries, Inc. Thu Feb 16 08:39:39 2017 Page 1

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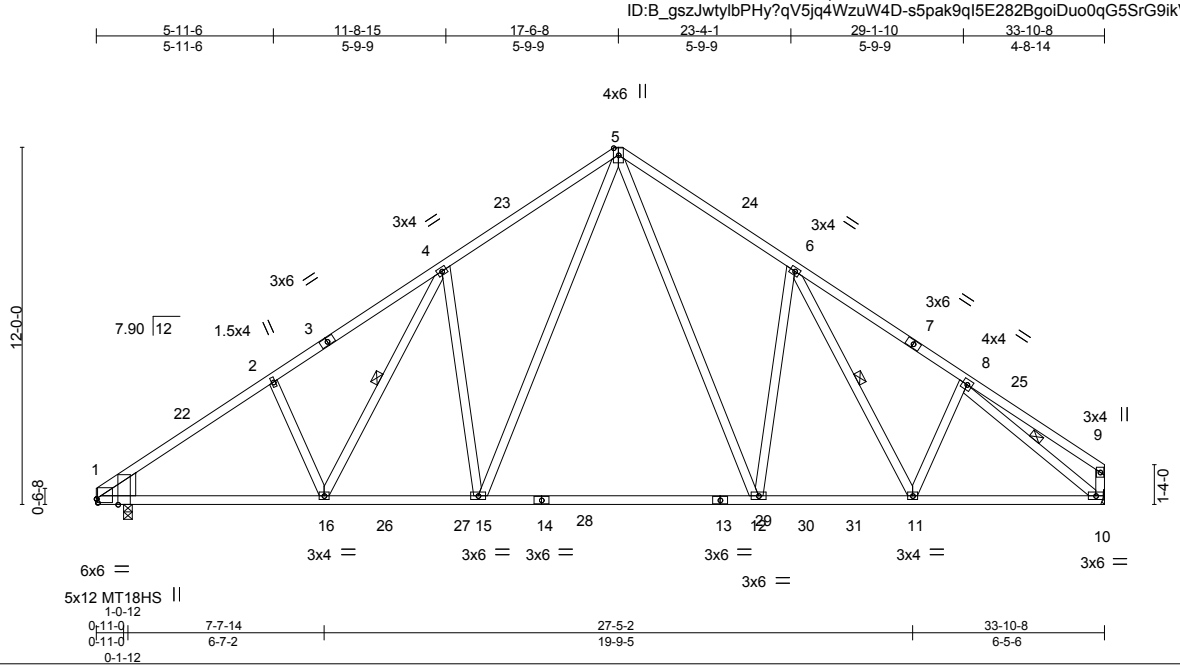


Plate Offsets (X,Y)-- [1:0-0-8,0-1-9], [1:0-2-5,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.35	12-15	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.93	Vert(TL)	-0.67	12-15	>601	240	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(TL)	0.08	10	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix-S)		Wind(LL)	0.06	15-16	>999	240	Weight: 223 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP No.2 *Except* 1-3: 2x4 SP No.1

BOT CHORD 2x4 SP No.2 *Except* 1-14: 2x4 SP DSS

WEBS 2x4 SP No.3

WEDGE Left: 2x10 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.

BOT CHORD Rigid ceiling directly applied.

WEBS 1 Row at midpt 6-11, 8-10, 4-16

REACTIONS. (lb/size) 1=1605/0-3-8, 10=1536/Mechanical
Max Horz 1=263(LC 9)

FORCES. (lb) - Maximum Compression/Maximum Tension

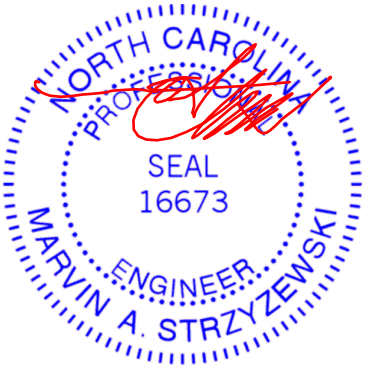
TOP CHORD 1-22=-2050/178, 2-22=-1982/205, 2-3=-1897/240, 3-4=-1847/266, 4-23=-1858/304, 5-23=-1753/332, 5-24=-1712/333, 6-24=-1813/298, 6-7=-1825/265, 7-8=-1917/230, 8-25=-160/78, 9-25=-267/62, 9-10=-237/80

BOT CHORD 1-16=-100/1582, 16-26=-23/1528, 26-27=-23/1528, 15-27=-23/1528, 15-28=0/1143, 14-28=0/1143, 14-29=0/1143, 13-29=0/1143, 12-13=0/1143, 12-30=-21/1491, 30-31=-21/1491, 11-31=-21/1491, 10-11=-101/1513

WEBS 5-12=-126/832, 6-12=-407/212, 6-11=-63/139, 8-10=-1822/129, 8-11=-18/132, 5-15=-127/916, 4-15=-421/217, 4-16=-75/120, 2-16=-120/133

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-1-8 to 3-6-5, Interior(1) 3-6-5 to 17-8-0, Exterior(2) 17-8-0 to 21-0-13 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) Refer to girder(s) for truss to truss connections.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.



February 16,2017

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

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	A6	Common	2	1	E10264433

Job Reference (optional)

Builders FirstSource, Albemarle , NC 28001

7.640 s Apr 19 2016 MiTek Industries, Inc. Thu Feb 16 08:39:40 2017 Page 1

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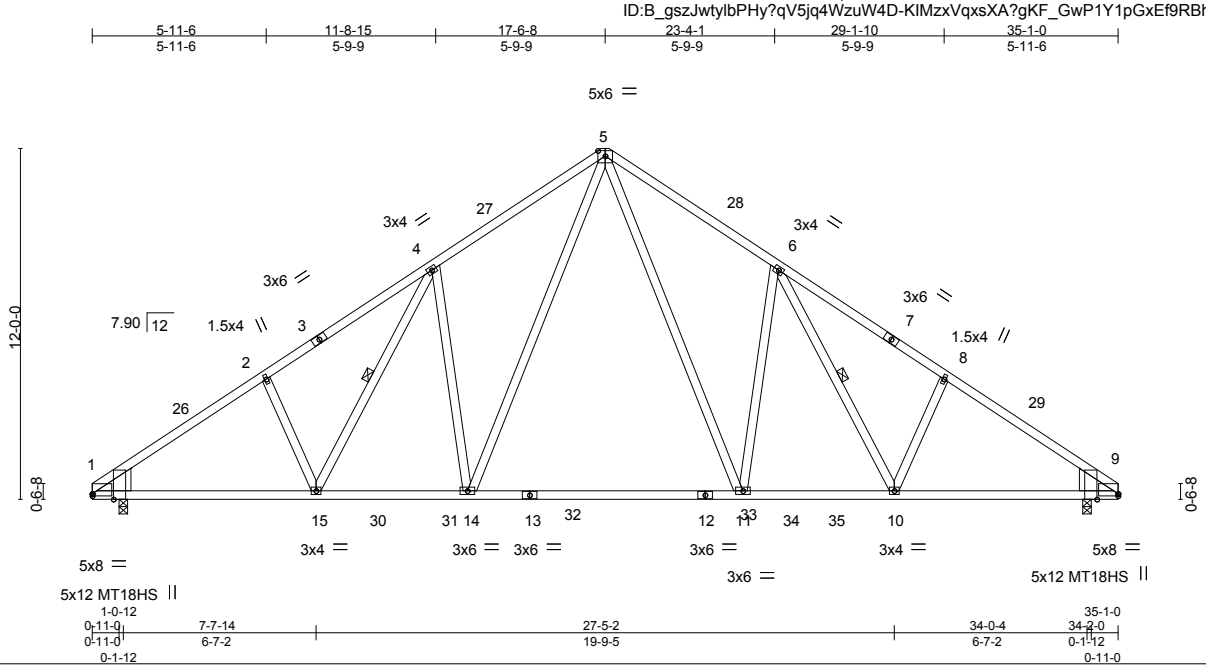


Plate Offsets (X,Y)-- [1:0-0-0,0-0-14], [1:0-2-5,Edge], [9:0-0-0,0-0-14], [9:0-2-5,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.37	11-14	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.76	Vert(TL)	-0.70	11-14	>602	240	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(TL)	0.10	9	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix-S)		Wind(LL)	0.07	14-15	>999	240	Weight: 222 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP No.1 *Except* 3-5,5-7: 2x4 SP No.2

BOT CHORD 2x4 SP DSS *Except* 12-13: 2x4 SP No.2

WEBS 2x4 SP No.3

WEDGE

Left: 2x10 SP No.2, Right: 2x10 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.

BOT CHORD Rigid ceiling directly applied.

WEBS 1 Row at midpt 6-10, 4-15

REACTIONS. (lb/size) 1=1625/0-3-8, 9=1625/0-3-8

Max Horz 1=-264(LC 8)

FORCES. (lb) - Maximum Compression/Maximum Tension

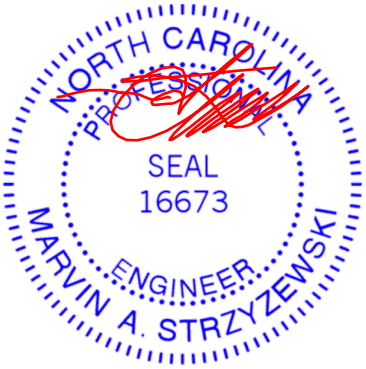
TOP CHORD 1-26=-2080/181, 2-26=-2007/208, 2-3=-1926/244, 3-4=-1877/270, 4-27=-1888/302, 5-27=-1782/336, 5-28=-1781/336, 6-28=-1888/302, 6-7=-1877/270, 7-8=-1927/244, 8-29=-2007/208, 9-29=-2080/181

BOT CHORD 1-15=-77/1605, 15-30=0/1553, 30-31=0/1553, 14-31=0/1553, 14-32=0/1172, 13-32=0/1172, 13-33=0/1172, 12-33=0/1172, 11-12=0/1172, 11-34=0/1552, 34-35=0/1552, 10-35=0/1552, 9-10=-77/1605

WEBS 5-11=-130/904, 6-11=-424/218, 6-10=-75/121, 8-10=-117/134, 5-14=-130/905, 4-14=-423/218, 4-15=-75/121, 2-15=-117/134

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-1-8 to 3-7-14, Interior(1) 3-7-14 to 17-8-0, Exterior(2) 17-8-0 to 21-2-6 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.



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

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	B1	Common Supported Gable	1	1	E10264434

Job Reference (optional)

Builders FirstSource, Albemarle , NC 28001 — 7.640 s Apr 19 2016 MiTek Industries, Inc. Thu Feb 16 08:39:40 2017 Page 1

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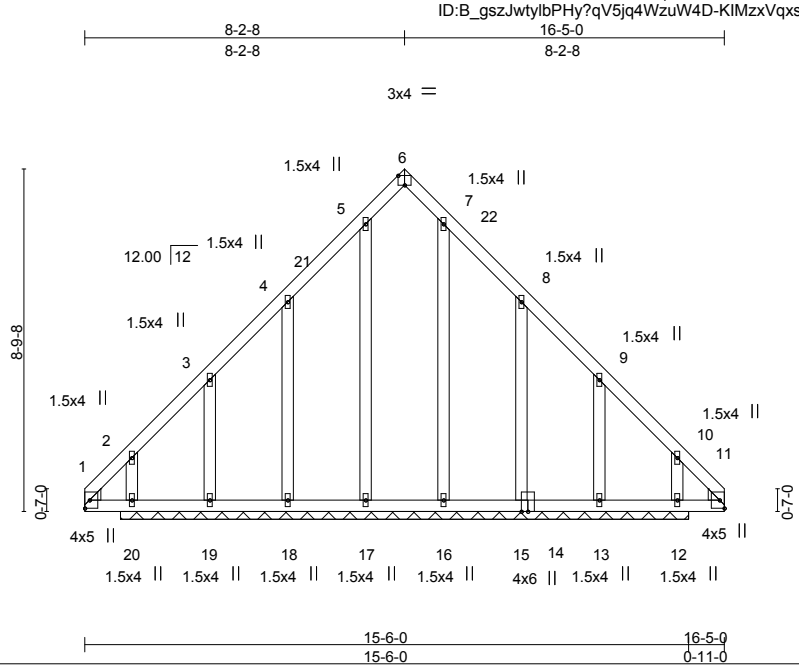


Plate Offsets (X,Y)-- [6:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(TL)	0.00	12	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)								
BCDL	10.0										Weight: 111 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.2, Right: 2x4 SP No.2

BRACING-

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

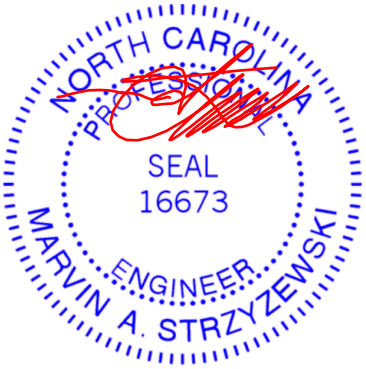
REACTIONS. (lb/size) 17=172/14-7-0, 18=160/14-7-0, 19=146/14-7-0, 20=179/14-7-0, 16=171/14-7-0, 15=160/14-7-0, 13=146/14-7-0, 12=179/14-7-0
Max Horz 20=194(LC 9)
Max Uplift 18=-70(LC 10), 19=-170(LC 9), 20=-111(LC 8), 15=-71(LC 11), 13=-164(LC 8), 12=-102(LC 9)
Max Grav 17=172(LC 1), 18=164(LC 14), 19=146(LC 1), 20=186(LC 9), 16=171(LC 1), 15=164(LC 15), 13=146(LC 1), 12=182(LC 15)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-141/89, 2-3=-144/124, 3-4=-47/94, 4-21=-27/215, 5-21=0/216, 5-6=-39/141, 6-7=-39/141, 7-22=0/216, 8-22=-31/215, 8-9=-40/87, 9-10=-136/116, 10-11=-135/83
BOT CHORD	1-20=-71/128, 19-20=-66/123, 18-19=-66/123, 17-18=-66/123, 16-17=-66/123, 15-16=-66/123, 14-15=-66/123, 13-14=-66/123, 12-13=-66/123, 11-12=-66/123
WEBS	5-17=-132/0, 4-18=-121/168, 3-19=-117/145, 2-20=-122/78, 7-16=-132/0, 8-15=-121/168, 9-13=-117/145, 10-12=-122/78

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Corner(3) 0-1-8 to 3-4-0, Exterior(2) 3-4-0 to 8-4-0, Corner(3) 8-4-0 to 11-4-0 zone; cantilever 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) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
5) Unbalanced snow loads have been considered for this design.
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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18, 19, 20, 15, 13, and 12. This connection is for uplift only and does not consider lateral forces.
10) Non Standard bearing condition. Review required.
11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



February 16,2017

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

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	B2	Common	1	1	E10264435

Job Reference (optional)

Builders FirstSource, Albemarle , NC 28001 — 7.640 s Apr 19 2016 MiTek Industries, Inc. Thu Feb 16 08:39:41 2017 Page 1

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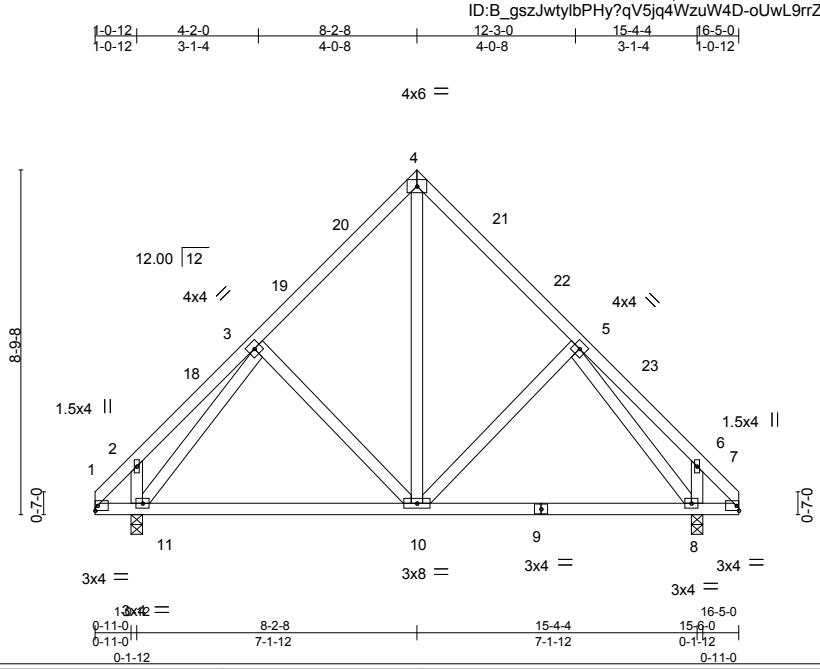


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.04	10-11	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.40	Vert(TL)	-0.10	10-11	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horz(TL)	0.01	8	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix-S)		Wind(LL)	0.01	10	>999	240	Weight: 106 lb	FT = 20%
BCDL	10.0											

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.

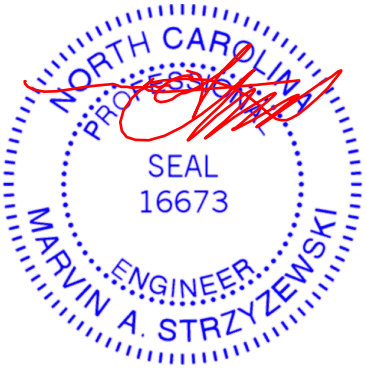
REACTIONS. (lb/size) 11=658/0-3-8, 8=658/0-3-8
Max Horz 11=188(LC 9)
Max Uplift 11=-3(LC 10), 8=-3(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-159/0, 2-18=-146/41, 3-18=-108/55, 3-19=-450/127, 19-20=-361/134, 4-20=-332/152, 4-21=-332/152, 21-22=-361/134, 5-22=-450/127, 5-23=-108/55, 6-23=-146/41, 6-7=-159/0
BOT CHORD	1-11=0/91, 10-11=-88/312, 9-10=0/312, 8-9=0/312, 7-8=0/91
WEBS	4-10=-92/319, 5-10=-102/133, 3-10=-102/133, 2-11=-120/152, 6-8=-120/152, 3-11=-451/74, 5-8=-451/74

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-1-8 to 3-1-8, Interior(1) 3-1-8 to 8-4-0, Exterior(2) 8-4-0 to 11-4-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 8. This connection is for uplift only and does not consider lateral forces.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.



February 16,2017

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

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes	
ALEXANDER	B3	Common Girder	1	2	Job Reference (optional)	E10264436

Builders FirstSource, Albemarle , NC 28001

7.640 s Apr 19 2016 MiTek Industries, Inc. Thu Feb 16 08:39:42 2017 Page 1

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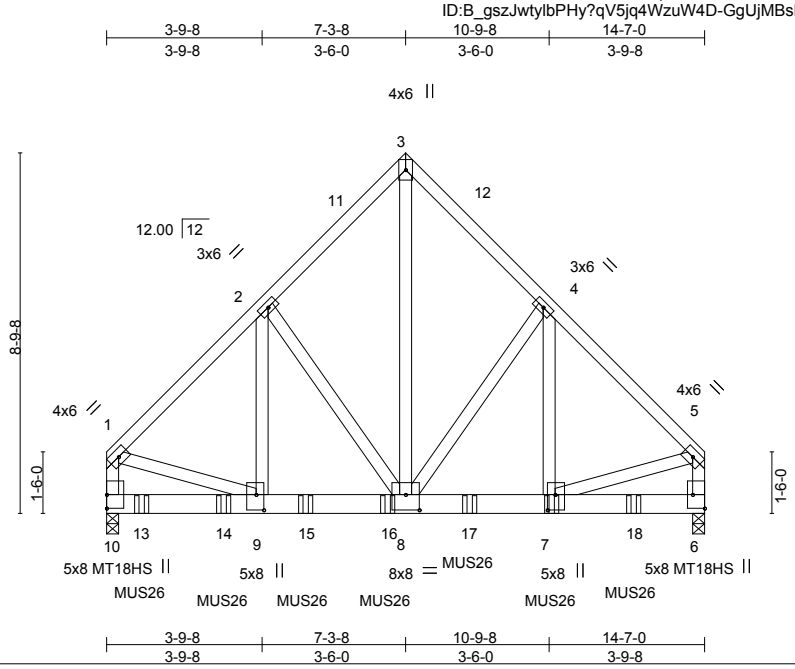


Plate Offsets (X,Y)-- [6:Edge,0-3-8], [7:0-4-8,0-2-4], [8:0-4-0,0-4-8], [9:0-4-8,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.05	7-8	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.29	Vert(TL)	-0.11	7-8	>999	240	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.69	Horz(TL)	0.01	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix-M)		Wind(LL)	0.01	8	>999	240	Weight: 241 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.3 *Except*
3-8: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

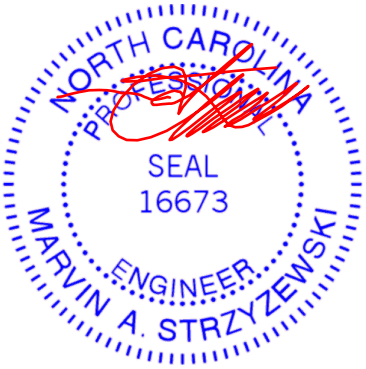
REACTIONS. (lb/size) 10=6188/0-3-8, 6=5443/0-3-8
Max Horz 10=-164(LC 6)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5025/0, 2-11=-3795/0, 3-11=-3676/0, 3-12=-3676/0, 4-12=-3795/0, 4-5=-4958/0, 1-10=-4671/0, 5-6=-4621/0
BOT CHORD 10-13=-122/312, 13-14=-122/312, 9-14=-122/312, 9-15=0/3490, 15-16=0/3490, 8-16=0/3490, 8-17=0/3443, 7-17=0/3443, 7-18=0/272, 6-18=0/272
WEBS 3-8=0/5054, 4-8=-1371/0, 4-7=0/1750, 2-8=-1452/0, 2-9=0/1863, 1-9=0/3349, 5-7=0/3341

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 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 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
6) Unbalanced snow loads have been considered for this design.
7) All plates are MT20 plates unless otherwise indicated.
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) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
11) Use Simpson Strong-Tie MUS26 (6-10d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-10-4 from the left end to 8-10-4 to connect truss(es) to back face of bottom chord.
12) Use Simpson Strong-Tie MUS26 (6-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 10-10-4 from the left end to 12-10-4 to connect truss(es) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard



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Continued on page 2

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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, 6-10=-20

Concentrated Loads (lb)

Vert: 7=-1453(B) 13=-1519(B) 14=-1516(B) 15=-1516(B) 16=-1516(B) 17=-1516(B) 18=-1453(B)

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	V1	Valley	1	1	E10264437
					Job Reference (optional)

Builders FirstSource, Albemarle , NC 28001 — 7.640 s Apr 19 2016 MiTek Industries, Inc. Thu Feb 16 08:39:42 2017 Page 1

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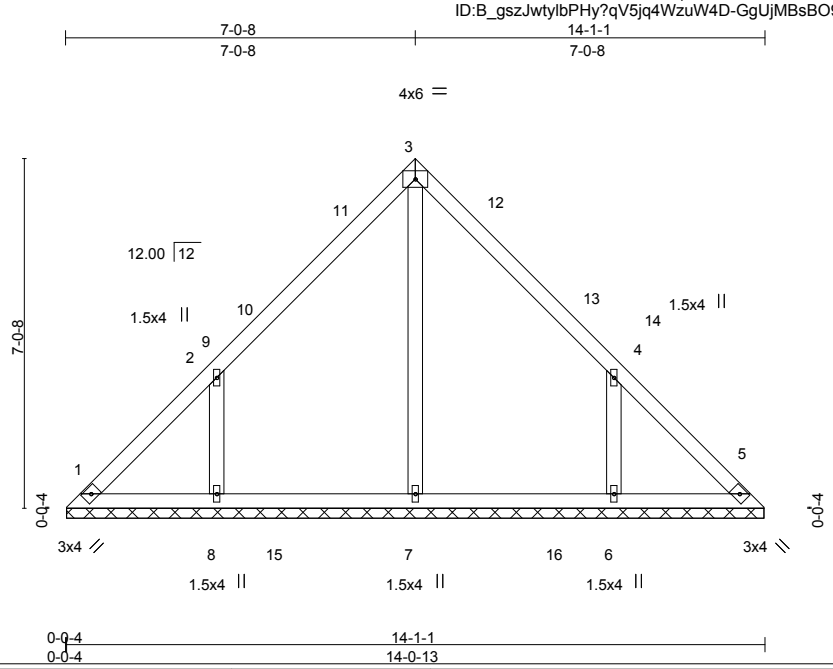


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(TL)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 66 lb	FT = 20%
BCDL	10.0											

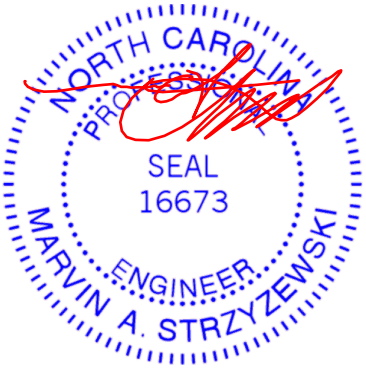
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS. (lb/size) 1=104/14-0-9, 5=104/14-0-9, 7=388/14-0-9, 8=350/14-0-9, 6=350/14-0-9
Max Horz 1=154(LC 9)
Max Uplift 1=-33(LC 8), 5=-7(LC 9), 8=-122(LC 10), 6=-121(LC 11)
Max Grav 1=111(LC 9), 5=104(LC 1), 7=388(LC 1), 8=357(LC 14), 6=357(LC 15)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-158/93, 2-9=-150/83, 9-10=-136/87, 10-11=-59/101, 3-11=-25/117, 3-12=-25/117, 12-13=-59/101, 13-14=-136/87, 4-14=-150/83, 4-5=-121/56
BOT CHORD 1-8=-29/99, 8-15=-29/99, 7-15=-29/99, 7-16=-29/99, 6-16=-29/99, 5-6=-29/99
WEBS 3-7=-141/0, 2-8=-242/214, 4-6=-242/214

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 7-0-8, Exterior(2) 7-0-8 to 10-0-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 5, 8, and 6. This connection is for uplift only and does not consider lateral forces.
9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



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Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	V2	Valley	1	1	E10264438
					Job Reference (optional)

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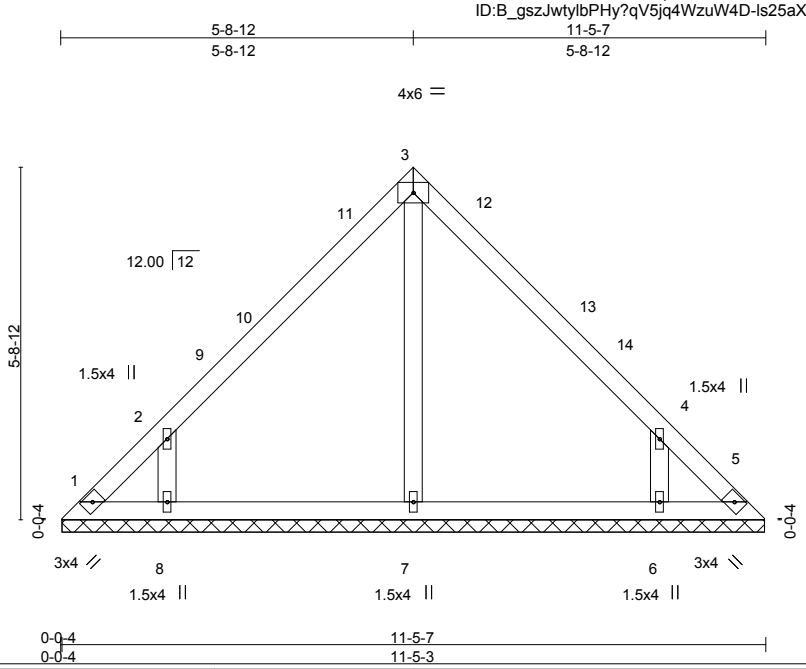


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(TL)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 51 lb	FT = 20%
BCDL	10.0											

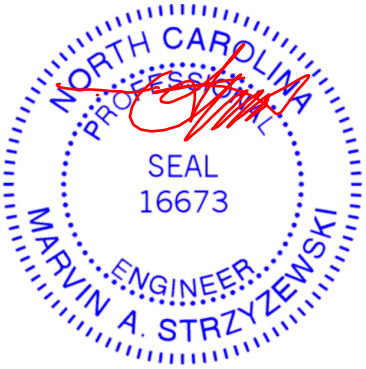
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS. (lb/size) 1=29/11-4-15, 5=29/11-4-15, 7=226/11-4-15, 8=288/11-4-15, 6=288/11-4-15
Max Horz 1=123(LC 9)
Max Uplift 1=-54(LC 8), 5=-33(LC 9), 8=-117(LC 10), 6=-116(LC 11)
Max Grav 1=110(LC 9), 5=89(LC 8), 7=226(LC 1), 8=298(LC 14), 6=298(LC 15)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-151/82, 2-9=-151/66, 9-10=-82/76, 10-11=-61/80, 3-11=-18/96, 3-12=-16/96, 12-13=-61/80, 13-14=-82/76, 4-14=-151/66, 4-5=-122/53
BOT CHORD 1-8=-24/78, 7-8=-24/78, 6-7=-24/78, 5-6=-24/78
WEBS 3-7=-140/0, 2-8=-238/227, 4-6=-238/227

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 5-8-12, Exterior(2) 5-8-12 to 8-8-12 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 5, 8, and 6. This connection is for uplift only and does not consider lateral forces.
9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	V3	Valley	1	1	E10264439

Job Reference (optional)

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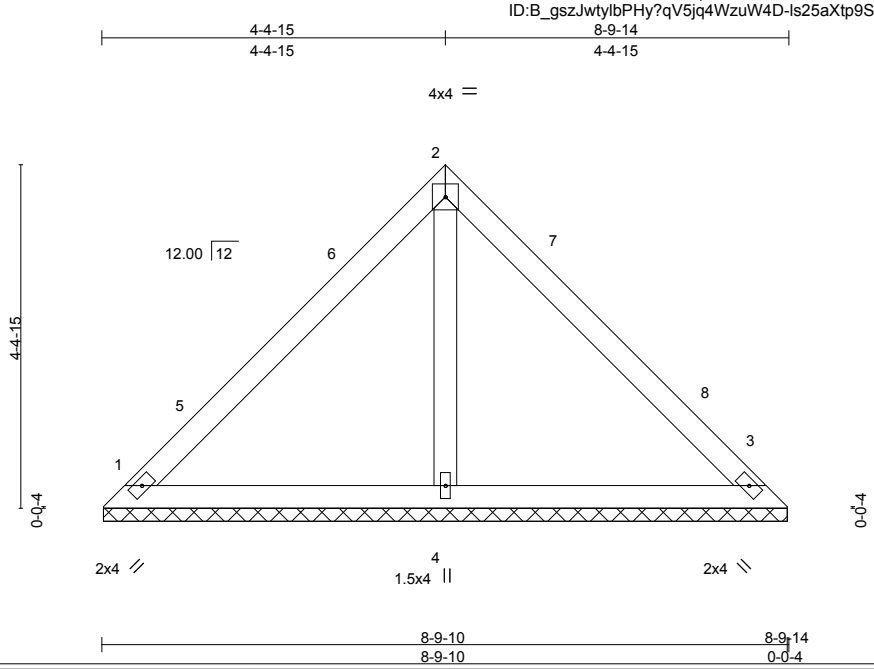


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)								
BCDL	10.0										Weight: 36 lb	FT = 20%

LUMBER-

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

BRACING-

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

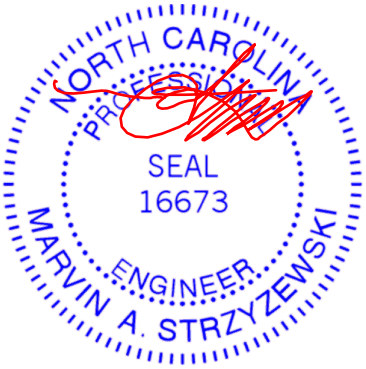
REACTIONS. (lb/size) 1=182/8-9-6, 3=182/8-9-6, 4=285/8-9-6
Max Horz 1=-93(LC 8)
Max Uplift 1=-10(LC 11), 3=-10(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-5=-149/41, 5-6=-69/48, 2-6=-30/67, 2-7=-22/67, 7-8=-69/48, 3-8=-149/41
BOT CHORD	1-4=-20/58, 3-4=-20/58
WEBS	2-4=-163/47

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 4-4-15, Exterior(2) 4-4-15 to 7-4-15 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	V4	Valley	1	1	E10264440
					Job Reference (optional)

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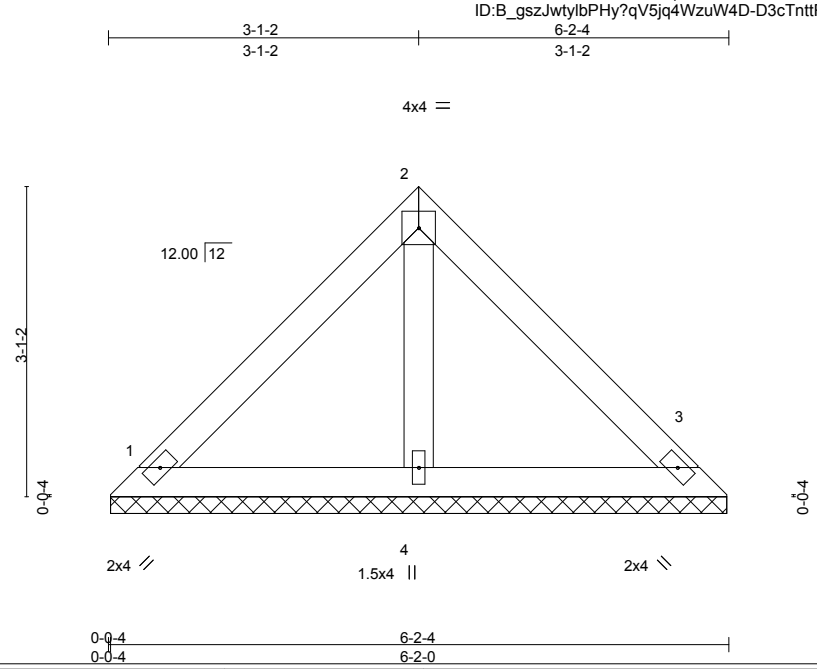


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)								
BCDL	10.0										Weight: 24 lb	FT = 20%

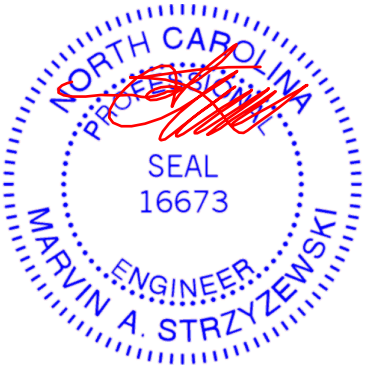
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS. (lb/size) 1=132/6-1-12, 3=132/6-1-12, 4=174/6-1-12
Max Horz 1=-63(LC 8)
Max Uplift 1=-13(LC 11), 3=-13(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-88/43, 2-3=-88/43
BOT CHORD 1-4=-14/39, 3-4=-14/39
WEBS 2-4=-105/33

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Michael Ryan Homes
ALEXANDER	V5	Valley	1	1	E10264441
					Job Reference (optional)

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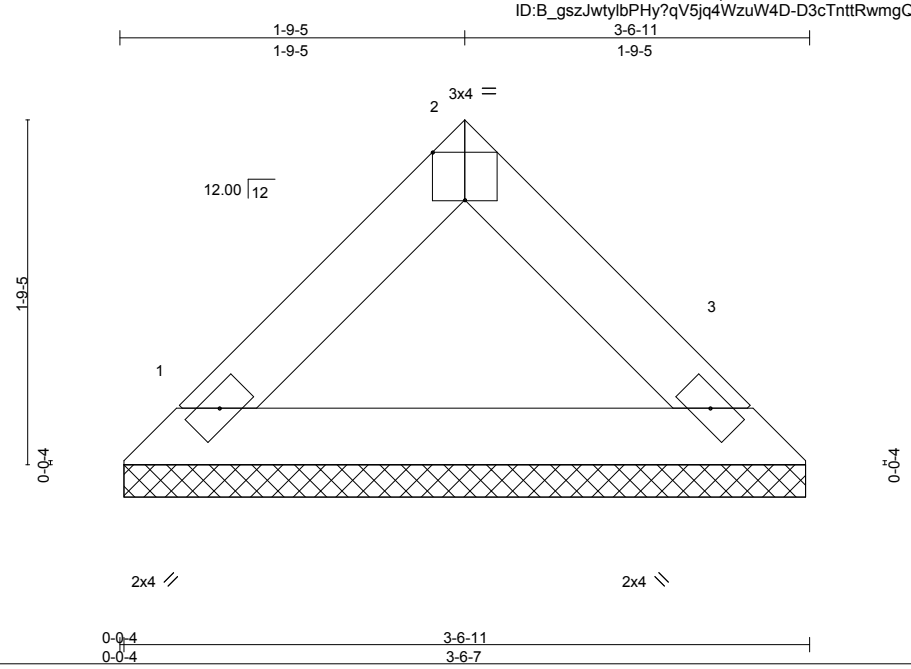


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)								
BCDL	10.0										Weight: 11 lb	FT = 20%

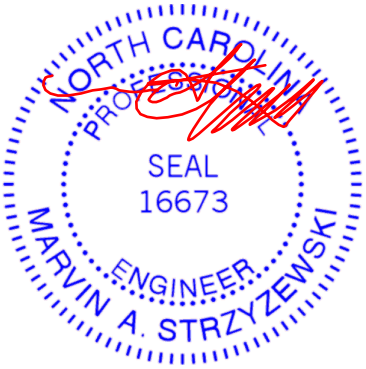
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=114/3-6-3, 3=114/3-6-3
Max Horz 1=-33(LC 6)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-85/35, 2-3=-85/35
BOT CHORD 1-3=-8/43

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1; Min. flat roof snow load governs.
4) Gable requires continuous bottom chord bearing.
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) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



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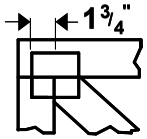
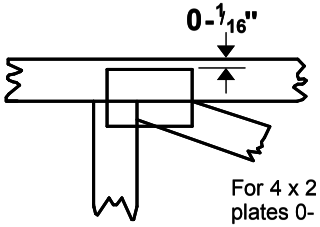
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

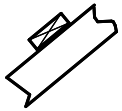
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

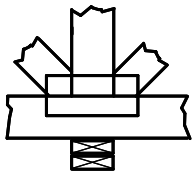
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

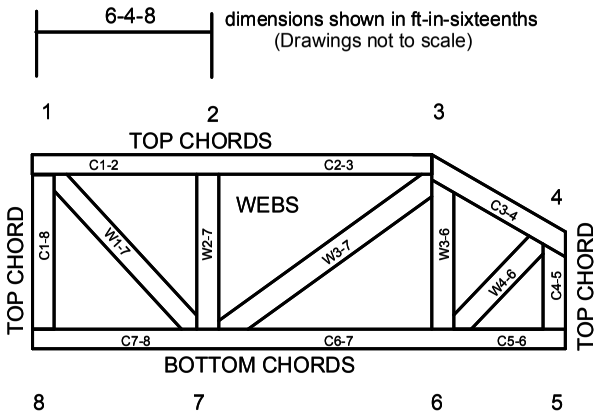


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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
A MiTek Affiliate

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.